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H. HERTEL

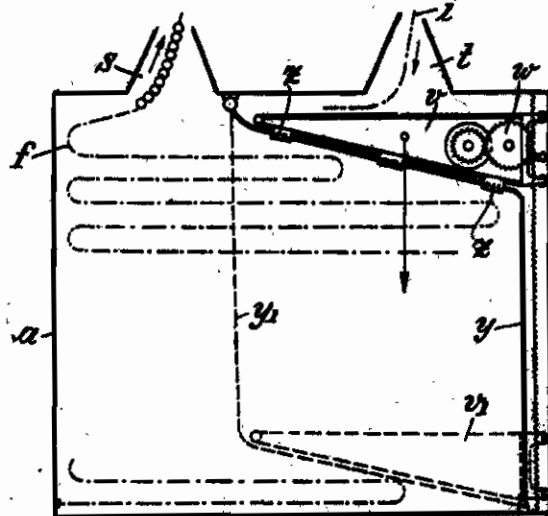
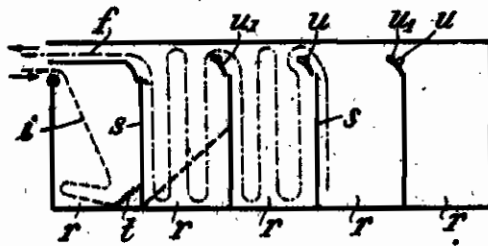
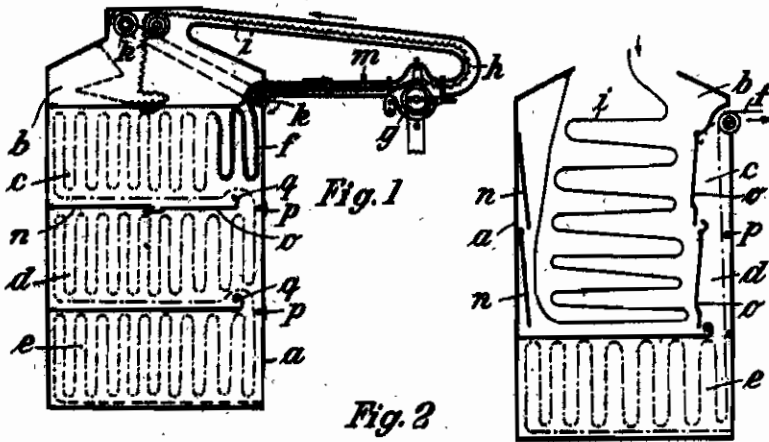
AMMUNITION CONTAINER FOR AIRCRAFT

Filed June 10, 1939

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2 Sheets-Sheet 1



By

Inventor  
Hans Herchel

Paul Herchel  
Attorney

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Fig. 6

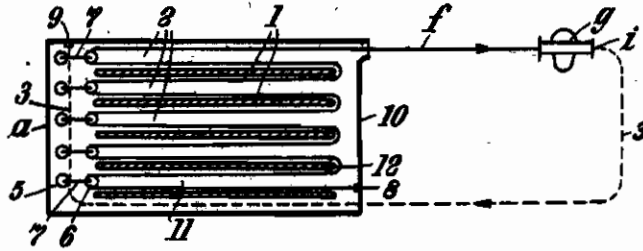


Fig. 7

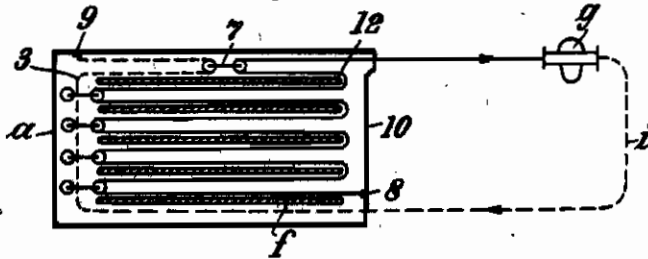


Fig. 8

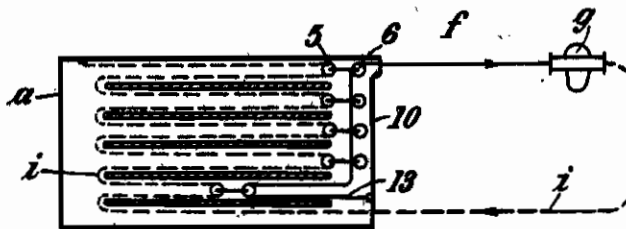
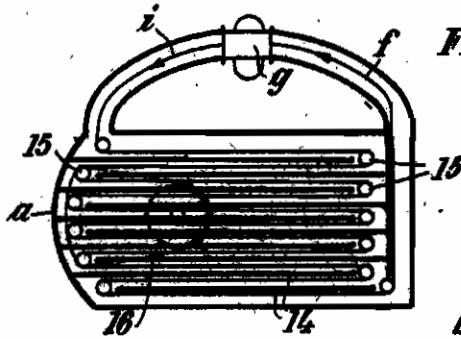


Fig. 9



Inventor

Herrnert Hertel

By

Fred. Mink

Attorney

# ALIEN PROPERTY CUSTODIAN

## AMMUNITION CONTAINER FOR AIRCRAFT

Heinrich Hertel, Rostock, Germany; vested in  
the Allen Property Custodian

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For machine guns in aircraft a full ammunition container and an empty ammunition container are mostly necessary. Both containers must be accommodated as near as possible to the gun so as to ensure perfect operation of the gun. The restricted space conditions in an aircraft, however, make it extremely difficult to find the necessary space in direct proximity to the gun.

Arrangements for accommodating the empty ammunition are known, in which the empty band is wound on a drum located at a distance from the gun, whereas the cases are thrown out into the open through an aperture. It is also known, to guide the ammunition band in the form of an endless link chain in a shaft extending in the longitudinal direction of the wing. The leading off of the cases into the open is open to considerable objections and also a link chain, because the full and empty band ammunition containers must be easily exchangeable.

The objections which have hitherto existed are overcome by the present invention. The full band container is constructed for accommodating the empty band and the empty ammunition. The empty ammunition is conducted into the space of the ammunition container becoming empty during the firing.

The full band container according to the invention has either foldable or slidable walls or both foldable and slidable walls, or the full band is guided along zig-zag paths over rollers or the like and the empty band is pulled into the space of the ammunition container becoming free during shooting. The full band box can be divided into several compartments which are arranged superposed or side by side. As soon as a compartment becomes empty the partition of the empty compartment is removed by the full band running out, so that the empty band can enter the opened compartment.

Another arrangement according to the invention consists in that the empty band space is shut off from the full band space by a flexible band. The flexible band is guided by a slide shiftable on the side of the box provided with a neck for the empty band.

The arrangement according to the invention may also be such that the full band in running off pulls the empty band into the position originally occupied by the full band. As the full band runs out of the ammunition container the empty band returns therein. The full band is stored in separate compartments formed by partitions and is conducted over rollers. Some of

these rollers may be additionally driven by a suitable spring motor or the like; the drive can be controlled so that it only operates when firing.

Several embodiments of the invention are illustrated diagrammatically by way of example in the accompanying drawings, in which—

Fig. 1 shows an ammunition container in elevation,

Fig. 2 is a band contact release,

Fig. 3 shows an ammunition container according to Fig. 1 with two empty compartments,

Fig. 4 shows another arrangement of the compartments,

Fig. 5 shows an ammunition container of modified construction,

Figs. 6 to 8 show an ammunition container with movable roller guides for the ammunition band in several different stages of emptiness,

Fig. 9 shows a form of construction with stationary roller guides.

In the form of construction illustrated in Figs. 1 to 3 the ammunition box *a* comprises several compartments, *b*, *c*, *d*, *e*, whose size depends upon the number of shots which have to be fired. The compartments arranged one below the other contain the full band *f* in horizontal or in vertical position (Fig. 1 and Fig. 3). The full band *f* runs through a gun *g* and as empty band *i* through a passage *h* into the compartment *b* in which it is piled up. Guide rollers *k*, which may be intercoupled, guide the full and empty band. These rollers *k* may be driven for example by an electric motor which is controlled by the full band *f* through the intermediary of a contact switch *m*.

The compartments arranged one below the other are separated by flaps *n*, *o*. These flaps are drop flaps and, after the emptying of the compartments are released in a suitable manner by mechanical or electrical means by the full band *f* running over contacts *p*, so that the compartment located under the flap is opened for the reception of the empty band *i*.

In Fig. 4 another form of construction is shown, in which the compartments *r* are arranged side by side. The partitions *s* are foldable and oscillatable. They are under the action of springs *t* and released by contacts or unlocking pawls *u* on the guide plates *u'* and controlled by the full band *f* in running out. The pawls *u* always release the preceding partition *s* between two empty compartments *r*.

According to another form of construction (Fig. 5) the ammunition box *a* has a neck *s* for the

full band and a neck *t* for the empty band. The full band *f* runs out of neck *s* and returns into the box *a* as empty band *i* through neck *t*. On the side of the box provided with the neck for the empty band a guide with a rack or the like is arranged, in which a slide *v* can move up and down. The slide *v* comprises a spring motor *w* which moves the slide towards the bottom of the box. A stop *x* prevents the return movement of slide *v*. For filling the full band box the stop *x* can be disengaged by a suitable knob. A flexible band *y* is guided by guides *z*, rollers or other means on the slide *v*. The ends of the band *y* are fixed in the full belt box. During the downward movement of the slide *v* the band *y* finally assumes the position *y*<sup>1</sup> and thus forms a closed empty band space. The band *y* is held taut in any position by the slide *v*. The slide *v* reaches the position *v*<sup>1</sup> and in this position forms with the band *y*<sup>1</sup> the largest empty band space.

The ammunition container *a*, according to the construction illustrated in Figs. 6 to 9, is divided by a partition *l* of suitable material into separate compartments *2* in which the full band *f* and an end band *3* are arranged. The full band *f* runs to the gun *g* and after passing over suitable guides returns into the full band container *a* as empty band *i*. Both, the full band *f* and also the empty band *i*, are guided by pairs of rollers which consist of two rollers *5*, *8* arranged one behind the other and connected by links *7*. The full

band *f* is fixed at the point *8* and the empty band *i* has its point of fixation at *9* through the intermediary of the end band *3*. The full band *f* running out of the container in the direction of the arrow pulls the first pair of rollers *5*, *8* into the position shown in Fig. 7 and successively all the pairs of rollers *5*, *8* guided between the partitions *l* in the direction towards the full band box wall *10*. While the full band *f* is running out, the empty band is pulled through the space *2* between the partitions *l* by the roller *5* of the pairs of rollers *5*, *6*. The ends *12* of the partitions may carry roller guides or similar means for assisting the guiding of the band. One pair of rollers after the other is brought out of its original position into its extreme position near the box wall *10*, until the full band has been fired. The last portion of the full band may form an intermediate band *13*.

The form of construction illustrated in Fig. 9 has partitions *14*, at the ends of which stationary rollers *15* are arranged over which rollers the full band *f* and the empty band *i* are conducted. The full band and the empty band are connected to form an endless band. A driving mechanism, consisting of a suitable spring motor *16* or of similar means, may drive one or several of the guide rollers *15* to ensure an easy movement of the band.

HEINRICH HERTEL.