Feb. 16, 1932. R. J. MINSHALL 1,845,508

AMMUNITION CONTAINER

Filed July 7, 1930 2 Sheets-Sheet 1

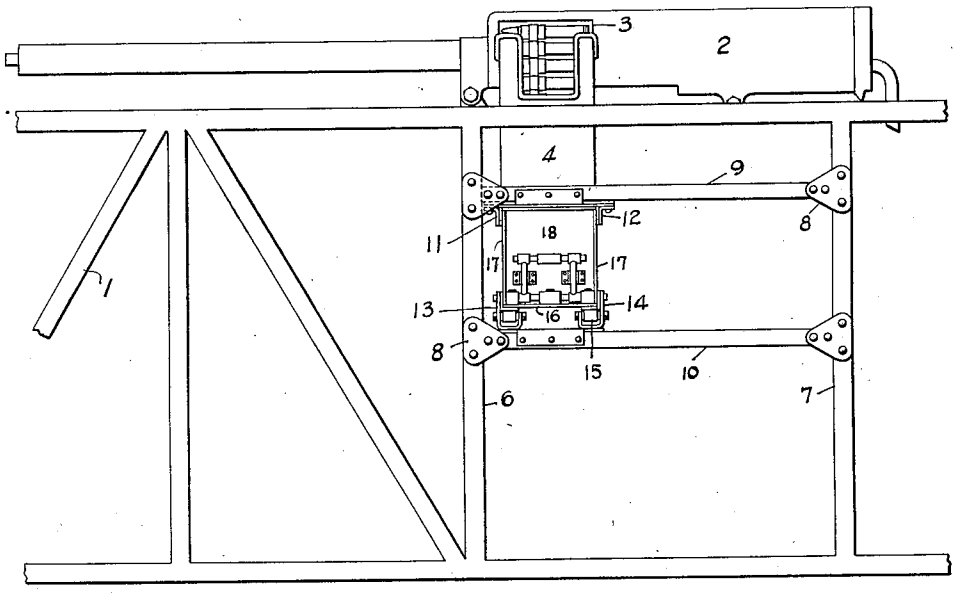


FIG - 1

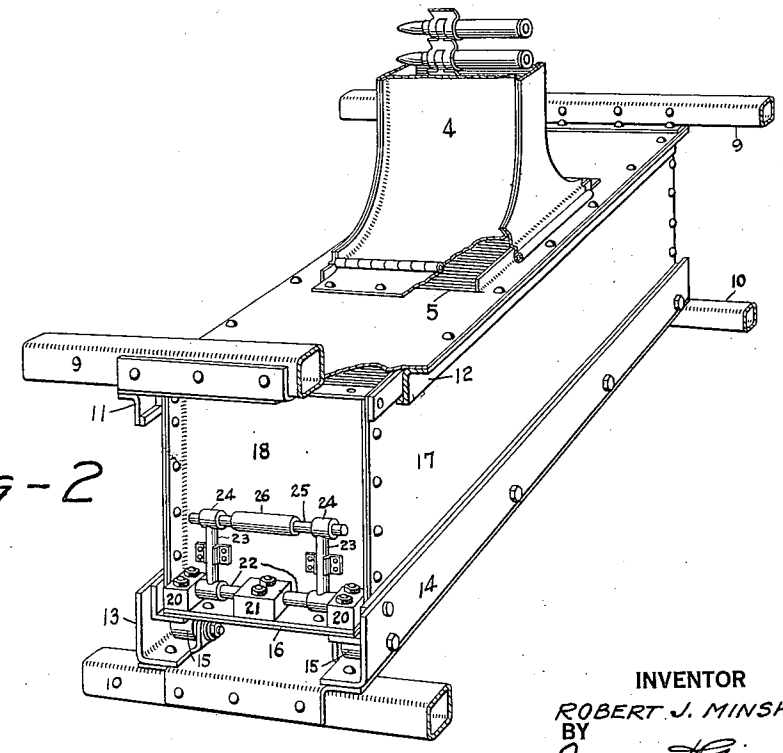


FIG - 2

INVENTOR
ROBERT J. MINSHALL
BY
James L. Ginnan
ATTORNEY

Feb. 16, 1932. R. J. MINSHALL 1,845,508

AMMUNITION CONTAINER

Filed July 7, 1930 2 Sheets-Sheet 2

FIG-3

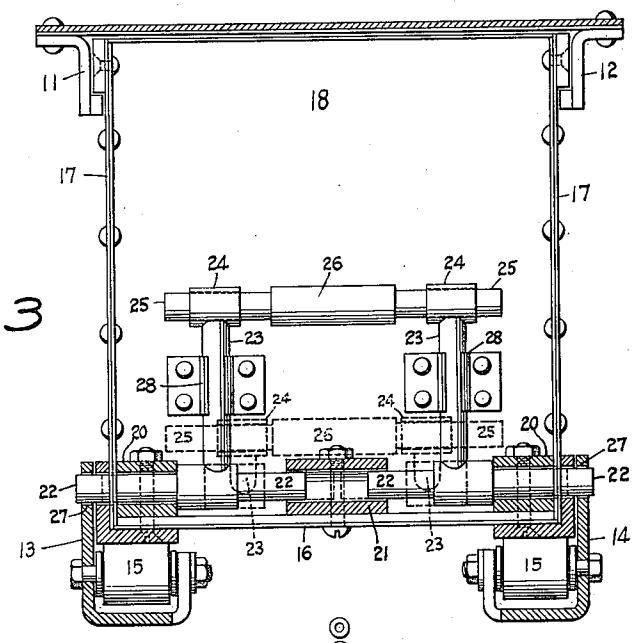
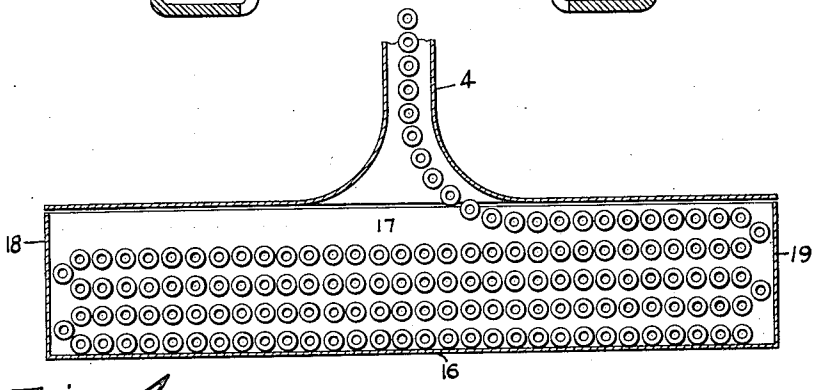


FIG-4



INVENTOR
ROBERT J. MINSHALL
BY James L. Givnan
ATTORNEY

Patented Feb. 16, 1932

1,845,508

UNITED STATES PATENT OFFICE

ROBERT J. MINSHALL, OF SEATTLE, WASHINGTON, ASSIGNOR TO BOEING AIRPLANE COMPANY, OF SEATTLE, WASHINGTON

AMMUNITION CONTAINER

Application filed July 7, 1930. Serial No. 466,116.

This invention relates to improvements in apparatus for feeding machine guns, and more especially to a means for permitting quick and convenient replacement of a supply of ammunition to be fed to a machine gun of the type used in military aircraft.

Heretofore boxes and reels have been used for carrying ammunition in aircraft but considerable inconvenience has been experienced in refilling due to the inaccessibility of the boxes and the difficulty of loading them on account of their size which is governed by the space permitted for their installation in the aircraft.

The main difficulty with the reels has been their tendency to over-run in feeding, due to the fact that the bullets are joined together and drawn from the reel in belt-like formation. In rapid firing of the gun considerable inertia is set up in the reel and this in addition to the tangential span of the bullet belt from the top of the reel to the gun causes unnecessary rotation of the reel.

Accordingly therefore, the principal object of my invention is to provide a container which is slidably mounted within the fuselage of an airplane and which can be readily extended beyond the fuselage to permit of quick, convenient and accurate loading.

These and other objects will appear as my invention is more fully hereinafter described in the following specification, illustrated in the accompanying drawings, and finally pointed out in the appended claims.

Figure 1 is a side elevation of a fragment of an airplane fuselage showing my improved form of container operatively installed therein and in operative engagement with a gun mounted on the airplane.

Figure 2 is a perspective plan view of the container.

Figure 3 is an end elevation of the container.

Figure 4 is a diagrammatic view of the container in sectional side elevation showing the arrangement of the bullet-belt within the box and its course of travel in leaving the box.

Reference numeral 1 indicates a fragment of an airplane fuselage upon which is mounted a machine gun 2. The gun is provided with a usual intake slot 3 to admit the bullets. A chute or guide 4 is mounted on the top of the container over an aperture 5 and extends to a point adjacent the slot 3.

The gun is mounted directly above a portion of the upright structural members of the fuselage as indicated at 6 and 7. Rigidly mounted between these structural members and secured thereto by gusset plates 8 are supporting rods 9 and 10 on both sides of the fuselage.

Angle irons 11, 12, 13 and 14 extend across the supporting rods and are riveted thereto as shown. Within the lower angle irons are rotatably mounted a plurality of rollers 15. Upon the rollers is mounted my improved form of container which is formed with a bottom 16, side walls 17 and end walls 18 and 19. The container as a whole can be freely drawn from side to side of the fuselage over the rollers.

A mechanism for locking the container in its operative position with respect to the gun is shown in Figure 3 and consists of an apertured block 20 located in each lower corner of the end wall 18 and bolted to the bottom 16. Midway between the corner blocks and also bolted to the bottom 16 is another apertured block 21. Slidably mounted within the three blocks are two locking pins 22 formed with upwardly extending rods 23 which are provided at their upper ends with collars 24, both of which collars embrace and support a rod 25 which is enlarged at its central portion, as at 26, to form a handle.

As shown in full lines in Figure 3, the locking mechanism is in a locked position and in this position the pins 22 are extended through apertures 27 in the lower angle irons 13 and 14. Spring clips 28 are secured to the end wall 18 of the container to keep the arms 23 in an upright position, where the handle 26 cannot be engaged to pull out the container. To unlock the container the operator pulls on the rod 26, which disengages the arms 23 from the spring clips 28. At any point between the disengaged position and the dotted line position (Figure 3) the arms 23 are free to be drawn toward each other with a resultant withdrawal of the

locking pins 22 from the apertures 27 in the angle irons 13 and 14 thus leaving the container free to be drawn from side to side. An aperture of sufficient size is formed in the fuselage covering (not shown in the drawings) to permit the container to be extended beyond it for access to its interior for refilling and the like.

While I have shown a particular form of embodiment of my invention I am aware that many minor changes therein will readily suggest themselves to others skilled in the art without departing from the spirit and scope of the claims. Having thus described the invention, what I claim as new and desire to protect by Letters Patent is:—

1. In apparatus of the class described the combination of an airplane fuselage, a gun mounted on said fuselage, a container for ammunition for said gun, and means supporting said container within said fuselage guiding the same for transverse movement thereof and lateral extension therebeyond.

2. In apparatus of the class described, the combination of an airplane fuselage, a gun mounted on said fuselage, a container for ammunition for said gun, said ammunition being arranged in belt-like formation within the container and fed to the gun in belt-like formation, a guide for said belt extending from the container to the gun, said container being mounted for reciprocal movement with respect to said fuselage, locking means carried by the container for locking itself in a predetermined position with respect to the gun.

3. In apparatus of the class described, the combination of an airplane fuselage, a gun mounted on said fuselage, a container for ammunition for said gun, said container being mounted within the fuselage and below the gun and adapted for reciprocal movement with respect to the fuselage, locking means carried by the container for locking itself against all but intentional movement, said locking means comprising a pair of extendable and compressible shafts adapted for engagement and disengagement with the support for the container.

4. The combination of an airplane fuselage, an ammunition container for feeding to a gun upon the fuselage, and means supporting said container from the fuselage and guiding the same for reciprocal movement with respect thereto in a predetermined path.

5. The combination of an airplane fuselage, an ammunition container for feeding to a gun upon the fuselage, means supporting said container from the fuselage and guiding the same for reciprocal movement in a predetermined path with respect thereto, and locking means to prevent unintentional movement of the container.

6. The combination of an airplane fuselage, an ammunition container for feeding to a gun upon the fuselage, means supporting said container from the fuselage for reciprocal movement with respect thereto, a handle supported upon and movable with respect to the container, releasable means to retain said handle in an inoperative position, and means associated with said handle to lock the container against movement relative to the fuselage, and operable when the handle is disengaged from said retaining means to release the container for movement.

7. The combination of an airplane fuselage, an ammunition container for feeding to a gun upon the fuselage, means supporting said container from the fuselage for reciprocal movement with respect thereto, a handle pivotally supported upon the container, a spring clip adapted to engage and hold the handle upraised, and means associated with said handle to lock the container against movement relative to the fuselage, and operable when the handle is withdrawn from said spring clip, to release the container for movement.

8. The combination of an airplane fuselage, an ammunition container for feeding to a gun upon the fuselage, means supporting said container from the fuselage for reciprocal movement with respect thereto, a handle supported upon and movable with respect to the container, releasable means to retain said handle in an inoperative position, locking pins to hold the container against movement relative to the fuselage, and slidably associated with said handle, the handle, locking pins and handle-retaining means being relatively so disposed and arranged that the pins lock the container when the handle is engaged by the retaining means, and are movable to unlocked position upon disengagement of the handle from its retaining means.

9. The combination of an airplane fuselage, an ammunition container for feeding to a gun fixed upon the fuselage, and guide means disposed transversely of and supported from the fuselage, and supporting said container for movement transversely of and laterally beyond the fuselage.

10. The combination of claim 9, the guide means comprising spaced lower transversely extending angle bars adapted for securement to fuselage members, rollers supported upon said angle bars, and adapted to engage the bottom of the ammunition container, and spaced upper transverse guide bars engageable with the upper side portions of the container.

11. The combination of claim 9, the guide means comprising spaced lower transversely extending angle bars adapted for securement to fuselage members, roller supported upon said angle bars, and adapted to engage the bottom of the ammunition container, and spaced upper transverse guide bars engage-

able with the upper side portions of the container, the container having end flanges disposed alongside the angle bars, each having apertures adapted to be brought into registry, and locking pins carried upon the end of the container, and engageable within the registering holes to lock the container against movement.

12. The combination of claim 9, the guide means comprising spaced lower transversely extending angle bars adapted for securement to fuselage members, rollers supported upon said angle bars, and adapted to engage the bottom of the ammunition container, and spaced upper transverse guide bars engageable with the upper side portions of the container, the container having end flanges disposed alongside the angle bars, each having apertures adapted to be brought into registry, locking pins carried upon the end of the container, and engageable within the registering holes to lock the container against movement, a handle upon the container movable from and into a position of use, means to hold the handle in a position of disuse, and said handle being operatively associated with said locking pins to hold them in locked position only when the handle is in position of disuse.

In testimony whereof I affix my signature.

ROBERT J. MINSHALL.