Nov. 17, 1953 G. D. CAPITO 2,659,173

DEVICE FOR LOADING THE MAGAZINES OF AUTOMATIC GUNS

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FIG. 1.

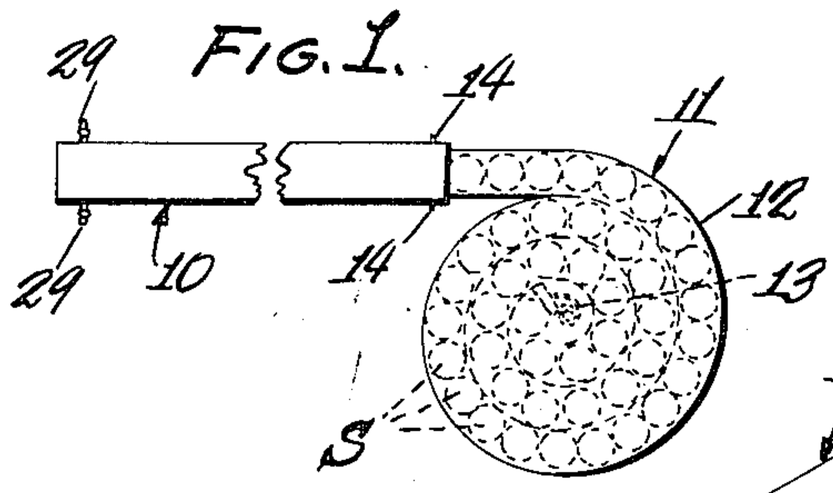


FIG. 2.

FIG. 3.

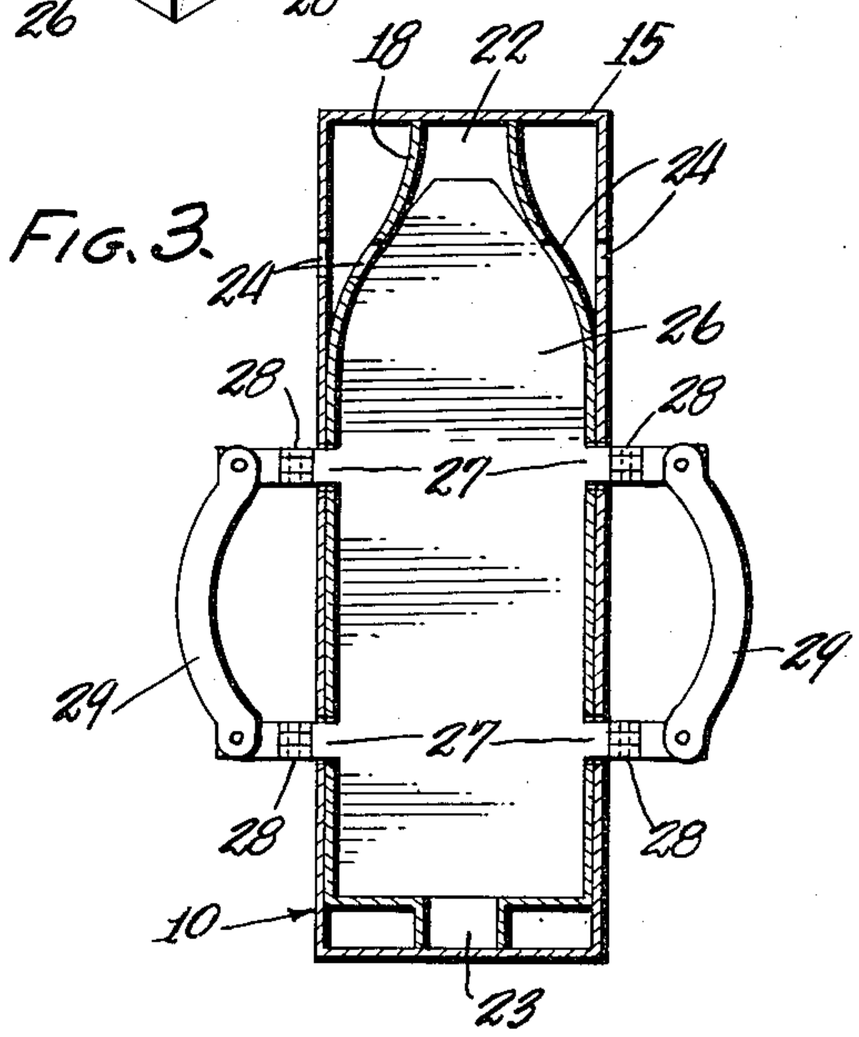
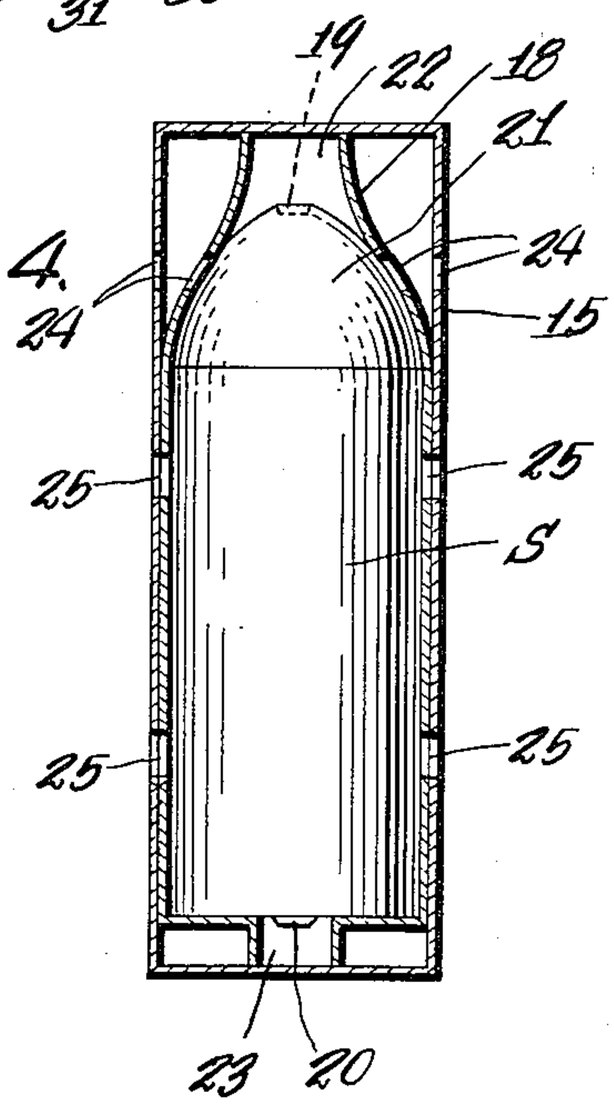


FIG. 4.



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DEVICE FOR LOADING THE MAGAZINES OF AUTOMATIC GUNS

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2 Claims. (Cl. 42—87)

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My invention relates to devices for loading the magazine of an automatic gun and the principal object of my invention is to provide new and improved devices of this character.

My invention is particularly designed for use with an automatic gun of the Oerlikon 20 mm. type used in the recent war, but it will be appreciated that the invention is not limited to such use.

Automatic guns have a magazine containing a plurality of shells, such magazine feeding shells, one at a time, to the firing chamber of the gun. Because of the rapidity with which shells are fired by automatic guns of modern design one of the main problems is to load shells in the magazine to keep pace with firing action.

Heretofore, shells were loaded in the magazine by hand, usually one at a time. This is not only a time consuming operation but is also a tedious and strenuous operation. As a result the firing pace was always greater than the loading pace, necessitating use of a large number of men to load the magazines and thus drawing men away from other military duties.

My invention makes it possible to easily and safely transport shells which are carried in devices all ready for easy and rapid loading of the gun magazines so that considerable labor during loading operation is eliminated.

In the drawing accompanying this specification and forming a part of this application, there is shown, for purposes of illustration, an embodiment which my invention may assume, and in this drawing:

Figure 1 is a broken view of an embodiment of my invention connected to the magazine of an automatic gun,

Figure 2 is a broken perspective view of the embodiment drawn to a larger scale, a portion of the magazine being shown separated from the embodiment,

Figure 3 is an enlarged transverse sectional view corresponding generally to the line 3—3 of Figure 2, and

Figure 4 is an enlarged transverse sectional view corresponding generally to the line 4—4 of Figure 2.

The embodiment of my invention herein disclosed comprises a device 10 adapted to be easily connectable to and disconnectable from a magazine 11 of an automatic gun. The form of magazine herein shown comprises a spirally wound tube 12, generally rectangular in cross-section and adapted to store a plurality of shells S as illustrated in Figure 1.

The magazine 11, less the device 10, is adapted to be connected to the automatic gun for the purpose of feeding shells to the firing chamber of the gun. A spring device 13 is generally used to push the shells S outwardly of the magazine and to

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the firing chamber. The magazine 11 may have pairs of bayonet pins 14 extending from opposite sides adjacent its mouth for connection with the loading device 10. It will be appreciated that the magazine herein shown is for illustrative purposes only, and that my invention is not limited to operation therewith.

The device 10 comprises a container 15 of oblong formation and preferably formed of sheet metal or other suitable sheet material. The container is preferably closed with the exception of an open end 16, and is formed at this open end with bayonet slots 17 for connection with the bayonet pins 14. It will be appreciated that any other suitable connection means may be employed as long as such means provides quick and positive connection of the device 10 with respect to the magazine 11.

Within the container 15 is a casing 18 which may also be formed of sheet metal or other suitable material. The casing 18 is elongated and extends substantially the length of the container 15, and has an open end in relation to the open end 16 of the container. The casing, in transverse section, is formed to generally follow the longitudinal contour of the shells S so that these shells are held in in-line relation in the casing but are slidable longitudinally of the casing.

In usual practice the shells S are formed with a detonator cap portion 19 and a firing cap portion 21, and are usually painted, or otherwise marked, in an area shown by the numeral 21 to aid in identifying the type of shell. As an example, shells of the tracer, explosive and armor piercing type may be painted different colors in the area 21 to assist in identifying such shells at a glance.

The casing 18 is formed to provide longitudinally extending recesses 22 and 23 to provide clearance for the detonator cap portion 19 and firing cap portion 21, respectively, so that such portions are always maintained out of contact with the casing, even when moved longitudinally thereof. Thus, the shells may be transported, stored, or loaded into the magazine without danger of unexpected explosion.

The container 15 and casing 18 may be provided with aligned longitudinally extending slots 24—24 in opposite sides thereof so that the painted area 21 of each shell is visible from the exterior of the container.

The container 15 and casing may also be provided with pairs of aligned longitudinally extending slots 25 in opposite sides for a purpose to be presently disclosed.

Means are provided for moving the shells S outwardly of the casing 18, and in the embodiment herein disclosed such means comprises a pusher plate 26 which may have an outline corresponding generally to the transverse shape of

the casing 18, as best seen in Figure 3. The pusher plate has pairs of arms 27 extending from its opposite sides, such arms projecting outwardly of the container 15 through respective slots 25 and terminating in a hinge portion 28. Handles 29 are connected to respective pairs of arms 27, each handle having a hinge portion cooperable with respective hinge portions 28 to receive a hinge pin.

The respective hinge portions are so constructed and arranged that the handles 29 may only be swung from full line to dotted line position shown in Figure 2. In dotted line position the handles lie flat along respective sides of the container 15 and thus do not interfere with efficient stacking of the containers. In full line position, the handles 29 may be grasped by an operator and a thrusting force exerted so as to exert pushing force on the pusher plate 26, such force being laterally transmitted through the shells S to move such shells outwardly of the container 15 and into the magazine 11 when the container and magazine are connected.

Means are provided to prevent the shells S from escaping from the casing 18 during transportation or stacking and in the embodiment herein disclosed such means comprises a movably mounted stop-plate 30, in one position (the dotted position shown in Figure 2) blocking outward movement of the shells, and in another position (the dot-dash position shown in Figure 2) being out of the path of the shells so that the shells may be moved outwardly of the open end of the casing and container.

Any suitable means may be used to maintain the stop-plate 30 in sliding relation with the container and casing, and in its blocking position the plate may be locked and sealed to the container. The unblocking position of the stop-plate 30 may be limited by an abutment 31 engageable with a portion of the casing or the container, or both, and in unblocking position the plate 30 may be constructed to lie along the upper side of the container, if desired.

In view of the foregoing, it will be apparent to those skilled in the art that I have accomplished at least the principal object of my invention, and it also will be aparent to those skilled in the art that the embodiment herein described may be variously changed and modified, without departing from the spirit of the invention, and that the invention is capable of uses and has advantages not herein specifically described; hence it will be appreciated that the herein disclosed embodiment is illustrative only, and that my invention is not limited thereto.

I claim:

1. A transportable device for loading the magazine of an automatic gun, comprising: an oblong container; a casing within said container having a transverse wall generally following the longitudinal outline of a shell and being elongated to receive a plurality of shells generally in in-line relationship, said container and said casing having related open ends at least one of which is connectable to said magazine, and said casing having longitudinally extending recesses at the detonator cap portion and the firing cap portion of said shells so that said shells may be moved longitudinally of said casing and outward of its open end without engagement between said casing and said detonator cap and firing cap portions, said container and said casing having aligned openings providing for view of a portion of at least one shell to determine identity of the type of shells carried by said casing, and said container and said casing having aligned longitudinally extending openings in opposite sides; pusher-plate means, adapted for movement longitudinally of said container and engageable with the rear-most shell to transmit pushing force laterally through said in-line shells whereby said shells are pushed outwardly of the open end of said casing and inwardly of said magazine, said pusher-plate means having arms extending outwardly of said casing and container through respective longitudinally extending openings, each arm having a handle pivotally carried thereby so that said handles may be folded flat against respective sides of said container, said handles being adapted for engagement by an operator for exertion of thrusting force on said pusher-plate means; and movably mounted stop-plate means, in one position blocking outward movement of said shells so that said container may be transported and stacked without loss of shells and without danger of explosion, and in another position being out of the path of said shells so that said shells may be delivered to said magazine.

2. A device for loading the magazine of an automatic gun, comprising: a casing having an opening adapted to be aligned with the opening of said magazine, said opening being of a width substantially equal to the diameter of a shell and being elongated to receive a plurality of shells in in-line relationship, said casing having longitudinally extending slots in opposite sides; and pusher-plate means disposed for movement longitudinally of said casing and engageable with the rear-most shell to transmit pushing force through said in-line shells whereby said shells may be pushed outwardly of the open end of said casing and inwardly of said magazine, said pusher-plate means having arms extending through said slots and outwardly of said casing, and each arm having a handle pivotally connected thereto so that said handles may be folded flat against respective sides of said casing, said handles being adapted for engagement by an operator for exertion of thrusting force on said pusher-plate means.

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References Cited in the file of this patent

UNITED STATES PATENTS

Number	Name	Date
309,213	Elliot	Dec. 16, 1884
1,158,981	Carl	Nov. 2, 1915
1,306,972	Nelson	June 17, 1919
1,447,860	Johnston	Mar. 6, 1923
2,237,712	Mullins	Apr. 8, 1941
2,289,067	Owsley	July 7, 1942
2,441,735	Warner	May 18, 1948
2,462,836	Barker	Mar. 1, 1949

FOREIGN PATENTS

Number	Country	Date
306,389	Germany	Feb. 13, 1920
306,390	Germany	Aug. 17, 1921
379,179	Great Britain	Aug. 25, 1932
826,713	France	Jan. 12, 1938