DEVICE FOR RAPIDLY LOADING A REMOVABLE CYLINDER

A device for rapidly loading part of a revolver cylinder, the loading speed being the result of a natural combination of a thrusting motion whereby rounds of ammunition carried by said device are inserted into the cartridge chambers of the cylinder, and a sideways motion whereby the device is disengaged. The loading device comprises a substantially flat support having a concave edge and shaped as a circular sector matching a portion of the revolver cylinder, and cartridge case securing elements located on the support in positions registering with the cylinder cartridge chambers, said elements opening out on the same side as the concave edge of the support.

5 Claims, 6 Drawing Figures
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The present invention relates to a device for rapidly loading part of a revolver, the loading speed being the result of a natural combination of a thrusting motion whereby rounds of ammunition are loaded into the cylinder chambers of the cylinder, and a sideways motion whereby the device is disengaged.

The invention further relates to an advantageous alternative embodiment of such a device, whereby two successive maneuvers allow the cylinder to be fully loaded, it being possible for this alternative embodiment to be shaped to completely match any type of belt.

It has already been proposed to use a device made of moulded plastic for rapidly loading a revolver cylinder. This device is virtually a replica of the cylinder and can be filled with cartridges which can then be offered up to the cylinder cartridge chambers and transferred thereto into gravity, the end face of the device being blanked off and fitted with an axial push rod for retracting radial catches the function of which is to restrain the rims of the cartridge cases and prevent them from accidentally dropping out of their lodgings.

It is, however, difficult to load a cylinder relatively quickly because the clearances needed for the cartridges in the device to permit transfer under gravity, coupled with the bulk of the revolver butt, are incompatible with a spontaneous registering of the rounds issuing from the device with the cartridge chambers in the revolver cylinder. It has already been proposed to use devices equipped with such cartridge-restraining means and configured as a half-cylinder in order to avoid the revolver butt. However, such devices likewise encounter the difficulties involved in combining transfer of the rounds under gravity and operation of a releasing pushrod. Moreover, the manipulations required for recovery of such loading devices are incompatible with the requirements for rapid firing; in addition, their cylindrical shape makes them unsuitable for carrying on a belt.

It is the object of this invention to overcome these drawbacks by providing a device for rapidly loading a revolver cylinder, comprising means for restraining the cases and bases of cartridges carried on an arcuate support matching a portion of the cylinder, whereby to permit simultaneous insertion of the cartridges into the cylinder cartridge chambers by a pressure exerted against them.

The subject device of this invention includes cartridges case clips designed to be removable, notably by elastic deformation in the direction of the concave edge of the arcuate support, claws being provided on the convex portion of said sector in order to restrain the cartridge bases against axial movement.

Manifestly, a device according to this invention will allow half the cylinder cartridge chambers of a revolver to be loaded by a pull of the index fingers against the cartridges held in the device, followed by a sideways pulling motion toward the convex edge of the arcuate support, since the effect of this pulling motion will be to allow the cartridge bases to slip out of their claws at the same time as the clips open and release their cartridges which thereafter assume their loaded positions in the cylinder cartridge chambers under gravity.

Preferably, a device of this kind is made by moulding a relatively flexible and inexpensive plastic, a notable example being neoprene. Further, because of the great relative cheapness of such a device, the latter may be thrown away after the cylinder is loaded, which greatly assists high firing rates.

In addition, since revolver cylinders usually have six cartridge chambers, so that the arcuate support of the subject device of this invention carries three clips; further, the middle clip thereof is spaced from the arcuate support differently from the other two end clips, thereby avoiding mutual jamming of the clip branches during sideways disengagement of the device.

The invention additionally provides for a plate shaped in the form of two sectors united, substantially end to end, by flexible means and each equipped with cartridge case clips and cartridge base claws, which plate-like device will allow a revolver cylinder to be loaded and will adapt to a variety of belt sizes by virtue of the flexibility of its middle portion.

Further particularities and advantages of the invention will emerge from the description which follows with reference to the accompanying non-limitative exemplary drawings. In the drawings:

FIG. 1 is a plan view of a revolver cylinder loading device according to the invention;
FIGS. 2 and 3 are respectively three-quarter and rear elevation views of the device of FIG. 1;
FIG. 4 is a vertical section through the line IV—IV of FIG. 1;
Fig. 5 shows an alternative embodiment of a device according to this invention; and
FIG. 6 is an explanatory diagrammatic showing of the way in which the loading device according to this invention can be used.

Reference is first had to FIGS. 1 through 4 for a showing of a plate 1 having generally concave and convex shaped opposite edges 2 and 3.

The marginal portion of convex portion edge 3 is rigidly united with a wall which is perpendicular to plate 1 and shaped to form three similar circular cylinder portions 4a, 4b, 4c, each portion being somewhat smaller than a half-cylinder.

Further, the inner surface of the wall of the device is formed with a groove 5g contiguous with plate 1 and corresponding to a little less than one-half of the rim 5 of a cartridge 6. The geometrical centers of the lodgings formed by cylinder portions 4a, 4b, 4c lie on a circle and are equally spaced angularly. This circle coincides substantially with the circle on which the cartridge chambers in the revolver cylinder lie, whereby plate 1 forms an arcuate-shaped support which matches a half-cylinder sector.

Said lodgings are arranged parallel with the plane of symmetry P of plate 1 and are open in the direction of concave edge 2.

In addition, the semi-circular walls of the end lodgings 4a, 4c for the cartridge bases are extended, perpendicularly to support 1, by cylinder portions 7a, 7c which are substantially larger than a half-cylinder, the diameters of which approximately correspond to that of a cartridge case 6 whereby to form clips therefrom, and the wall of middle lodging 4b is extended likewise by a strip 8 integral with a middle clip 7b identical to clips 7a and 7c; the height of strip 8 being at least equal to the height of clips 7a and 7c.

It is to be noted that the three identical clips 7a, 7b, 7c each has a symmetry plane which is the symmetry plane of the cartridge base lodging 5 referred to previously. Further, the device formed by sector-shaped plate 1 and the clips 7 is preferably made by moulding a flexible plastic, and more particularly neoprene.

It will be appreciated from the foregoing description that three cylinders 6a, 6b, 6c can be slipped sideways (in the direction of arrow f) into the clips 7 of the device, the elastic deformation of the clip edges being consistent with such insertion and subsequent retention of the cartridges, while the grooves 5g contiguous with plate 1 cooperate with a portion of the rim 5 of each cartridge in order to restrain the latter, notably against the effect of gravity (arrow g). As a result, the bases of the cartridges are applied against plate 1, and the rounds are consequently carried parallel to one another.

A more thrusting movement will then suffice to engage, into the cartridge chambers of a revolver cylinder (FIG. 6), the bullets and an appreciable portion of the cartridge cases carried in such a loader, after which a sideways pull (in the direction of arrow g) applied to the concave edge 2 of sector 1 will cause the rounds to be released and to be left in the cylinder, which cylinder is thus half-loaded as soon as the cylinder is turned downwardly as a basis of the device.

During these manipulations, which are not hindered by the revolver butt or cylinder, the lateral edges of the clips open (arrow h) but the different spacings of the clips 7a and 7c on the one hand, and clip 7b on the other, in relation to plate 1,
prevent mutual jamming therebetween. Manifestly, a second loader identical to the first could be used to load the remaining portion of the cylinder. However, separate loader manipulations can be avoided by utilizing, in succession, the two sectors 9a, 9b of the device shown in FIG. 5, which device comprises a plate 10 which is integral with two sets of restraining means identical to the clips 7 and the grooves 5g described preceding.

It is to be noted that the firing rate permitted by such a loading device is made all the more rapid in that the cost of such a device made of moulded plastic is sufficiently low to allow the device to be thrown away, for the discarding motion follows naturally upon the sideways motion for disengaging the device and shortens the reloading time.

It is further to be noted that the double-sector forming plate 10 embodies a notch 10a in its middle which endows the device with a degree of resiliency enabling it to be carried on belts of various sizes.

Manifestly, comparably efficient loading could be obtained with any other type of sector-shaped support fitted with cartridge base restraining claws and with clips each of which consists of an elastic blade shaped to hug the cylindrical form of a cartridge case.

It goes without saying that changes and substitutions well known to the specialist in the art may be made in the specific exemplary embodiments hereinafter described without departing from the scope of the invention.

I claim:

1. A revolver cylinder reloading device designed to carry cartridges with exposed tips in mutually spaced position for registration with adjacent revolver cylinder chambers, comprising a single-piece molded cartridge clip composed throughout of the same yieldable material formed into a substantially flat support having a concave edge and shaped as a circular sector generally matching a corresponding sector of the revolver cylinder, and plural clustered cartridge holder elements integral with the flat support and projecting perpendicularly a substantial extent therefrom, said elements being each of tubular configuration extending around a major arc with their open sides facing in the same direction toward said concave edge, whereby said elements are adapted to yieldably engage the respective cartridges around a major arc of their periphery and over a significant axial extent and to release the cartridges by forced expansion.

2. A device as claimed in claim 1 wherein said yieldable material of which said molded structure is composed is a plastic material.

3. A device as claimed in claim 2 wherein said plastic material is neoprene.

4. A device as claimed in claim 1 wherein said single-piece molded structure of yieldable material comprises two juxtaposed clusters of semi-cylindrical cartridge holder elements all integral with a common unitary coextensive flat support.

5. The device of claim 1 wherein said flat support carries three tubular cartridge-engaging elements in arcuate arrangement, the intermediate of the three elements projecting perpendicularly a greater extent than the other two.

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