

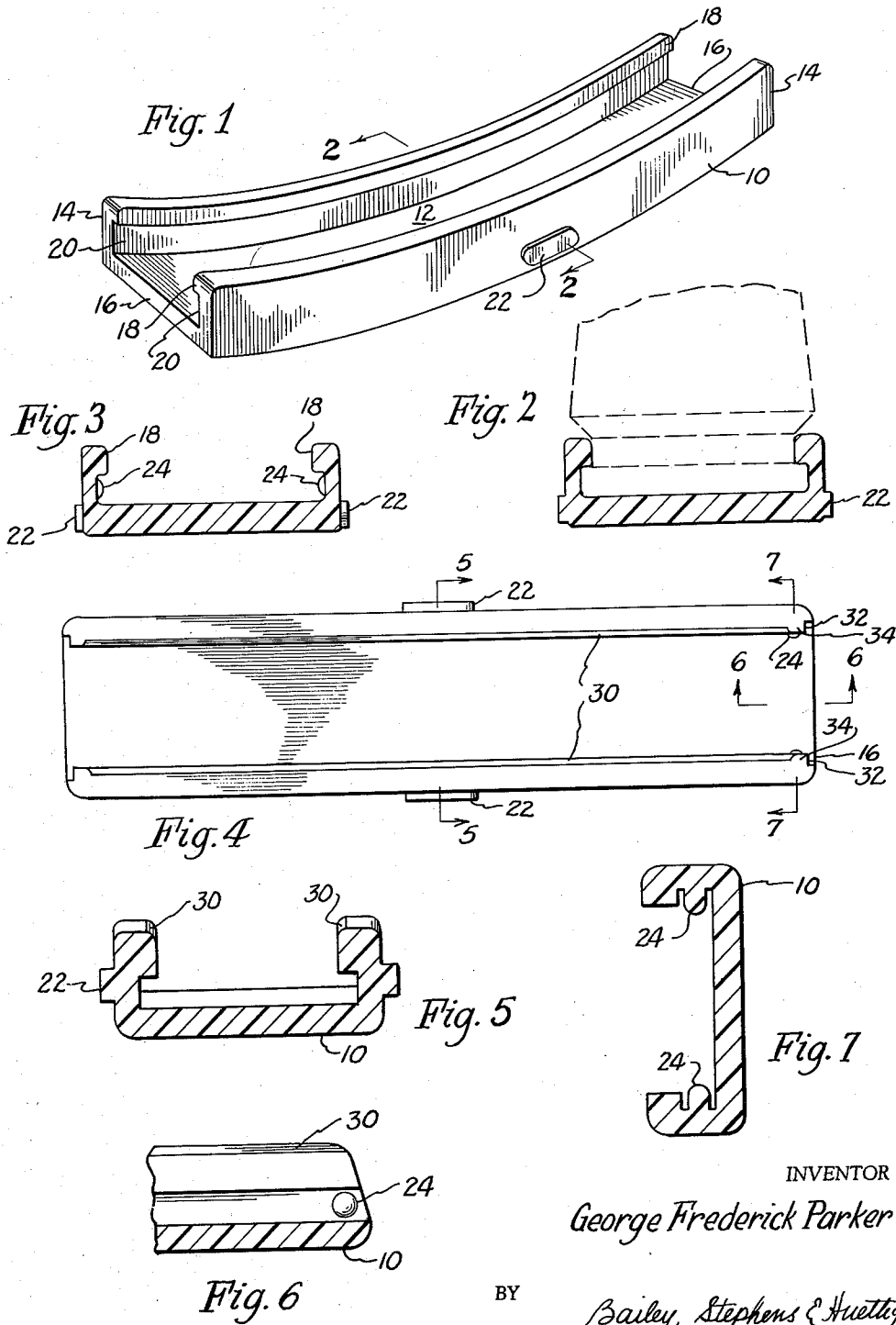
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CARTRIDGE CLIP

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CARTRIDGE CLIP

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This invention relates to a cartridge clip and, in particular, is directed to cartridge clips composed of a plastic material.

Cartridge clips are used for holding a number of individual cartridges in a common plane for convenient storage and for the easy and rapid filling of a rifle magazine. Ordinarily, such clips are constructed in two parts, these being a holding channel and a backing spring, both of which are made of suitable metal, such as steel, aluminum, brass, etc., protectively coated against corrosion by a phosphate dip or cadmium plating.

In order that the clip can perform its function of holding the cartridges and releasing them when required, the spring tension upon the cartridges must be such that the cartridges will be retained in the clip when subjected to relatively low pressures in either of their movable directions along the holding channel. At the same time, the cartridges must be quickly and easily displaced from the clip when subjected to a pressure which is just slightly more than the maximum pressure retaining the cartridges in the clip. It has been found that in handling the cartridge clip, the cartridges are usually subjected to not more than five pounds pressure, and therefore the clip pressure should be not less than five pounds. On the other hand, for the easy release of the cartridges at all times, and particularly under adverse weather conditions, that cartridges should be released from the clip when a pressure of between five and ten pounds is applied thereto.

In use, the clip containing a plurality of cartridges is inserted into the magazine of a rifle and the cartridges are forced from the clip into the magazine by means of thumb pressure applied to the outermost end cartridge in the clip, the clip being held stationary by means of lugs on the sides of the clip which are engaged with the holding means of the magazine. In the case of a magazine which has been detached from the rifle, the clip is inserted into guides on the magazine and thumb pressure again used to push the cartridges from the clip into the magazine.

The conventional two-piece metal clip has several disadvantages. It is unnecessarily heavy and expensive to manufacture. It is difficult to slide the cartridges into and out from the clip when the spring tension is sufficient to retain the cartridges. When the metal clip is full, the spring does not always exert an even tension upon all of the cartridges held in the clip, and under certain handling and stowing conditions, there is a tendency for the end cartridges to fall out of the clip. Again, sharp edges inherent in a metal clip sometimes cause injuries to the hands of the person using the clip.

The object of this invention is to produce a cartridge clip which avoids the above-enumerated disadvantages.

In general, this and other objects of the invention are obtained by forming a cartridge clip from a single piece of plastic material, such as a synthetic plastic composed of nylon, linear polyethylene, polystyrene, polyester film, polyethylene, acetate butyrate, cellulose acetate, polypropylene or polycarbonate. The clips are formed from the material by directly moulding them or by machining them from extruding bar stock.

The means by which the objects of the invention are obtained are described more fully with reference to the accompanying drawings, in which:

FIGURE 1 is a perspective view of the cartridge clip of this invention;

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FIGURE 2 is a cross-sectional view on the line 2—2 of FIGURE 1;

FIGURE 3 is a cross-sectional view of a modified construction of FIGURE 1;

FIGURE 4 is a plan view of a further modified form of clip; and

FIGURES 5, 6 and 7 are cross-sectional views, respectively, as taken on the lines 5—5, 6—6 and 7—7 of FIGURE 4.

As shown in FIGURES 1, 2 and 3, the clip is composed of a channel shaped body 10 having a bottom web 12 and side flanges 14, the body being open at its opposite longitudinal ends 16. Extending inwardly from the upper free ends of side flanges 14 are inwardly directed flanges 18 which, together with the side channels 20 thus formed, are for the purpose of engaging the rims of the cartridges to be held in the clip. Clip lugs 22 are integrally formed and project outwardly from the opposite sides of the body 10. The body is composed of a synthetic plastic material and is curved or bowed along its longitudinal axis, as shown.

As shown in the modification of FIGURE 3, additional holding pressure against the release of cartridges from the clip is provided by means of detent buttons or bosses 24 located in the channels 5 adjacent the open ends 16 of the clip.

In the modification of FIGURES 4 to 7, the free edges of flanges 18 are given slightly beveled surfaces 30. Furthermore, flanges 18 have rabbeted ends 32, with the beveled surface 30 terminating short of these ends so as to form a squared end 34. The detent bosses 24 are located substantially beneath these ends 34.

In use, the rim ends of the cartridges are forced through the open end 16 of the clip into the grooves 20 formed by the flanges 18 and the bottom 12 of body 10. Grooves 20 are slightly narrower than the rim of the cartridge and this, coupled with the bowed shape of the clip, provides sufficient tension to hold the cartridges in place.

By being moulded or otherwise formed from a single piece of synthetic plastic material of the types described above, the clip of this invention has a distinct advantage over the clips of metal. As it is of one-piece construction, the heretofore used metal spring is eliminated and there is nothing to be fouled by dirt, ice, or snow to prevent the removal of cartridges from the clip and to increase the weight of the clip. Due to the even pressure exerted on the cartridges throughout the whole length of the clip, the end cartridges are under direct tension for their retention in the clip, and the cartridges can be forced from or released from the clip by the application of a pressure not less than five pounds nor exceeding ten pounds. The plastic forming the clip can be made with smooth edges and thus eliminates sharp edges which may cause injuries in the handling of loaded clips. Again, as the plastic is easily worked, the cost per clip is considerably less than that of a metal clip. Furthermore, the plastic clips can be permanently color-coded when made in order to provide an easy identification of the type of cartridge loaded in the clip. Finally, plastic clips do not need an anti-corrosive finish.

Having now described the means by which the objects of the invention are obtained, I claim:

1. A cartridge clip comprising a channel shaped body composed of synthetic plastic having a bottom web and side flanges and being curved along its longitudinal axis, cartridge rim engaging flange means fixed to the free ends of said side flanges and extending inwardly of said clip and parallel to said bottom web, cartridge release holding pressure detent bosses projecting inwardly from said side flanges adjacent the longitudinal ends of said body, and

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a plurality of clip locating lug means protruding outwardly from said side flanges.

2. A cartridge clip as in claim 1, said body being composed of a synthetic plastic selected from the group consisting of nylon, linear polyethylene, polystyrene, polyester film, polyethylene, acetate butyrate, cellulose acetate, polypropylene, and polycarbonate.

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