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ARRESTOR BACKSTOP FOR LOW MUZZLE VELOCITY
AMMUNITION HAVING BACKLIGHTING

3,334,902

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2 Sheets-Sheet 1

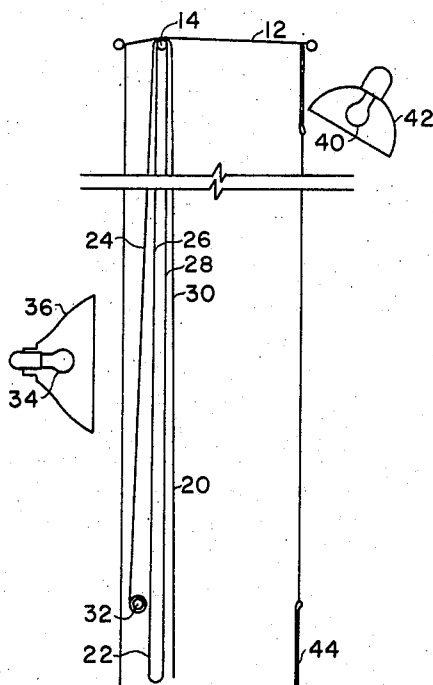


FIG. 1

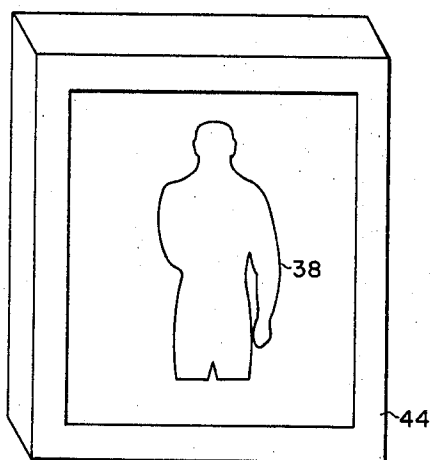


FIG. 2

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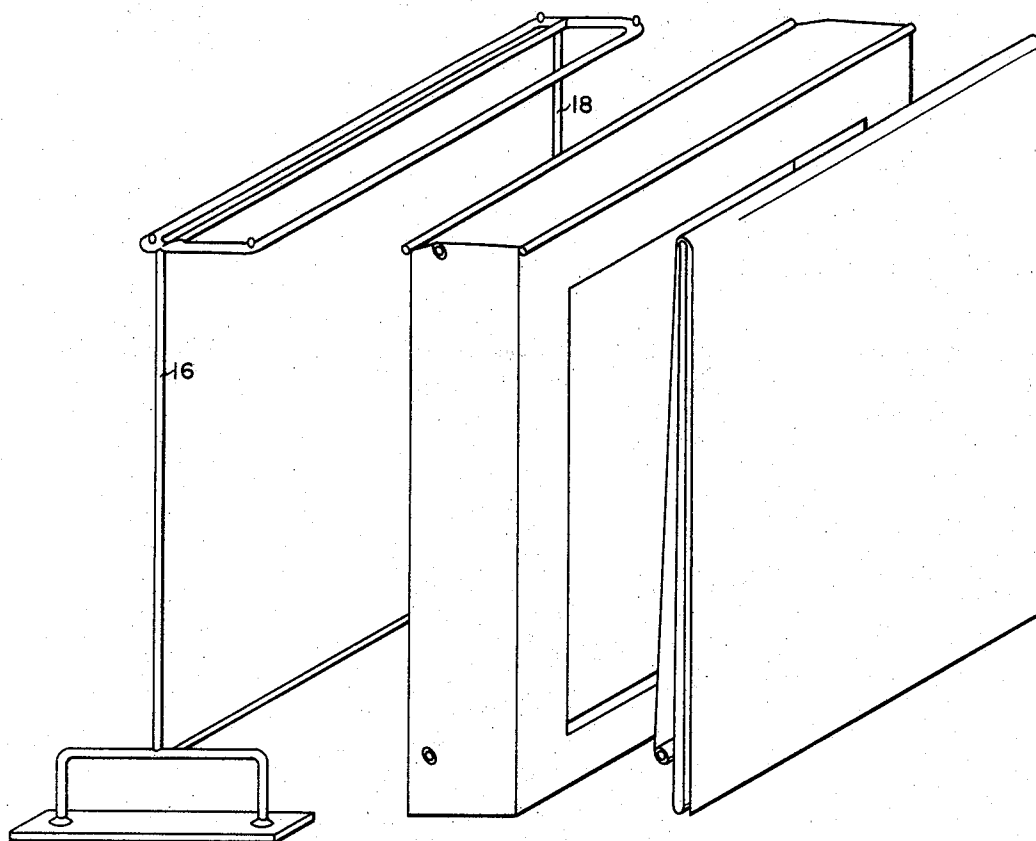


FIG. 3

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ARRESTOR BACKSTOP FOR LOW MUZZLE VELOCITY AMMUNITION HAVING BACKLIGHTING

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4 Claims. (Cl. 273—102.1)

In general this invention relates to a new and improved arrestor backstop for low muzzle velocity ammunition which stops and arrests the thrust of projectiles of modified ammunition fired from a hand gun in limited indoor areas to enable persons to train and perfect their performance in the handling of such guns.

The arrestor backstop is a manufactured device utilized as a backstop for the stopping and arresting of the thrust of modified bullets or projectiles, such as wood, wax, plastic or paper or any non-service ammunition fired from a hand gun or rifle of 22 to 45 caliber. It may be utilized with any center firing caliber low muzzle velocity ammunition in a limited indoor area to train and perfect the performance of persons in the handling of a hand gun and a rifle.

The backstop is manufactured with both practical and scientific considerations. Front and back illumination of the backstop is achieved by artificial incandescent and fluorescent lighting of adjustable design. The artificial lighting provides built-in day and night conditions so as to simulate the shooting which would be required in self-defense and further creates a sharpened target area. The lighting silhouettes an assortment of targets for training and can be used for professional training or merely for pleasure shooting. The backstop is both safe and noiseless and, spent projectiles can be reclaimed and reused thus making the backstop efficient and economical for target shooting.

The backstop can be manufactured in all sizes and can be adapted for installation under any conditions. It can be a small portable or large portable model, or modified to be selfstanding, hanging or wall suspended. The supporting frame saves space as it is only 12 inches in depth. Portions of the arrestor backstop can be constructed from wood, steel, fabric, plastic, aluminum, chair wire or cable. Because of the above, the backstop is convenient for handling and carrying, especially for demonstration and exhibition purposes.

A completely stationary backstop could be manufactured in any size and fixed to a wall or installed in one place. In any event, front and back illumination can be achieved and thus adapted for a moving silhouette type target. The target can be a man, dog, car, window, birds, etc. Thus, depending on the target, the backstop can be used for accurate training.

The backstop is in the basic form of a fibrous box-like apparatus with an open side facing the shooter. The backstop can be utilized with low muzzle velocity ammunition for indoor limited practice shooting of 22 to 45 caliber projectiles such as wood, plastic, wax, paper or the like.

The backstop is constructed of a series of specially selected resilient fibrous material sheets. The fibrous material has a built in resiliency to absorb and arrest the thrust of projectiles with the minimum of ricochet from the projectiles.

The arrestor backstop can have dimensions from 2 feet by 2 feet by 12 inches to 18 inches or more as needed and as conditions require. In all cases, the arrestor backstop will provide a safe and noiseless target area.

The portable backstop is supplied with a five inch face frame of dark fibrous material.

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Where pleasure sports shooting training is desired, whether it be in the home, club, office or training area, the device may be used with special moving targets suspended by cable supports on a moving carriage. Thus designed and constructed, a target could be made to move from left to right or vice-versa. The shooter can, by positioning himself at a given angle, simulate the target coming and going from him at all angles. Thus, this motion would enable the shooter to simulate the confrontation which occurs where one's safety is involved and he thus can develop skill and ability to shoot in a safe manner.

The training device will also enable the shooter to achieve accuracy in action point shooting of a hand gun and further increase the accuracy of the shooter in sighting on a target with a rifle.

The laminate used in the arrestor backstop is composed and arranged of thin layers or sheets of fibrous material adapted to rotate between upper and lower support rods. The layers forming the laminate are separate. The construction comprises a series of fibrous materials interspaced with a film of polyethylene. These layers absorb the impact from low muzzle velocity ammunition as the layers are set into motion by the impact to the ammunition. The layers effectively absorb the force of the projectiles which, after their forces is spent, drop harmlessly into the bottom of the backstop. This latter feature allows the spent projectiles to be reused and, further, since all of the spent projectiles are arrested, the backstop is safe. Safety is further enhanced by the fact that ricocheting of the projectiles has been eliminated.

In the drawings,

FIGURE 1 is a cross-sectional view of the backstop of the present invention.

FIGURE 2 is a front plan view of the backstop of the present invention with a target in place.

FIGURE 3 is an exploded view showing the elements forming the backstop of FIGURE 1.

As shown in the drawings, the arrestor backstop of the present invention comprises a top support horizontal rod 14 supported by side supports 16 and 18. A fibrous translucent material 20 is hung over the horizontal rod 14 at least two times to form at least one loop 22 and, thus, provide four layers 24, 26, 28 and 30 of ammunition arresting material. A lower horizontal rod 32 is provided. A light bulb 34 and shade 36 are positioned behind the fabric 20. A target 38 is adapted to be positioned and mounted in front of the material 20.

A second light bulb 40 and its reflector 42 are positioned adjacent the top support 12 in front of the target and the fabric 20 to light up the front of the target if desired. A suitable outline curtain 44 is also provided to define the target area.

It will be understood that when the low muzzle velocity ammunition is shot at the target 38, the target 38 being of a thin material will absorb some of the impact of the projectile and the projectile will also pierce one or more of the arrestor layers 24, 26, 28 and 30. However, because of the air space between arrestor layers 24, 26, 28 and 30 and the general flexibility of the fibrous material 20, the projectile will not pass through all four layers but will stop short thereof. The projectile will fall to the bottom of the target or to a point within the loop 22 so that the projectile can be retrieved and reused.

Further, when the projectile hits the target, it will make a hole in the target. The light bulb 34 will then shine through the hole in the target caused by the projectile and thus give a position indication as to the exact point at which the target was hit. This is due to the translucent nature of the fibrous material 20.

It should further be noted that after a period of time when a given area of the fibrous material 20 has been pierced by the projectiles, it is only necessary to pull on

the free end 30 of the material 20 so as to change the relative positions of the arrestor layers 24, 26, 28 and 30 and thus the arrestor layers are reusable over their entire length and, accordingly, the arrestor backstop is extremely economical.

I claim:

1. An arrestor backstop for low muzzle velocity ammunition comprising a support, said support including a horizontal rod, a projectile stopping means comprising a thin flexible sheet of translucent material extending over said rod, said sheet extending over said rod at least twice to form at least one flat downwardly extending loop of said flexible sheet material, pierceable target means disposed in front of said loop of flexible sheet material and generally forwardly facing illuminating means disposed rearwardly of said projectile stopping means for providing light behind said loop to illuminate the targets means through said translucent material, said projectile stopping means being generally coextensive with said target means.

2. The arrestor backstop for low muzzle velocity ammunition of claim 1 including a second illuminating means, said second illuminating means being mounted adjacent said horizontal rod and in front of said target means to light up the front of said target means.

3. The arrestor backstop for low muzzle velocity ammunition of claim 1 wherein said flexible sheet material has a portion thereof formed of a fibrous material.

4. The arrestor backstop for low muzzle velocity ammunition of claim 3 wherein the remaining portion of said flexible sheet material is a film of plastic material.

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