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S. RUSSELL

2,020,702

PROTECTIVE SHIELD

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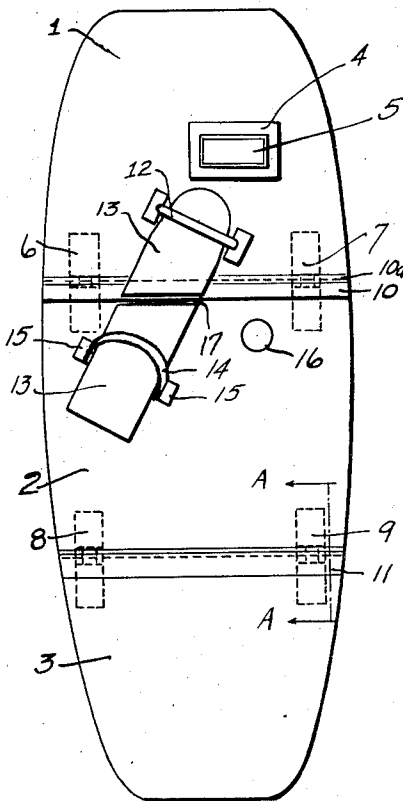


Fig. 1

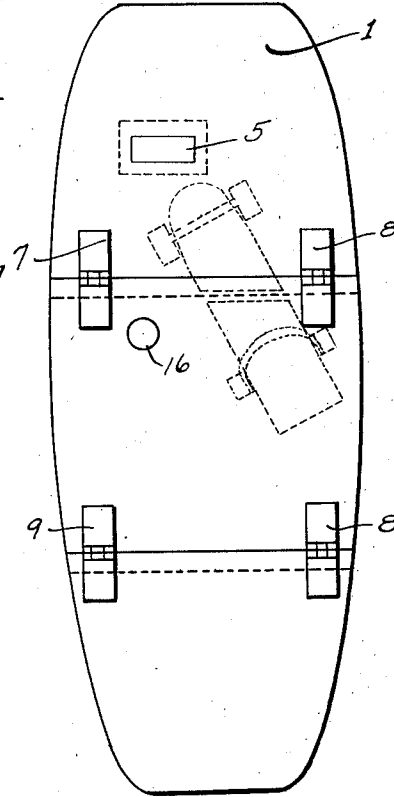


Fig. 2

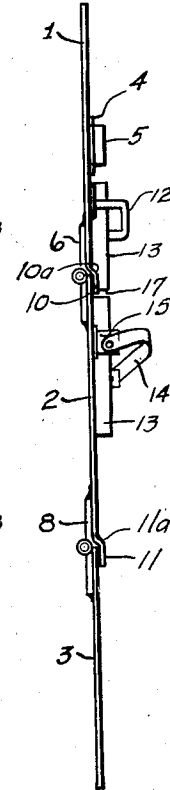


Fig. 3

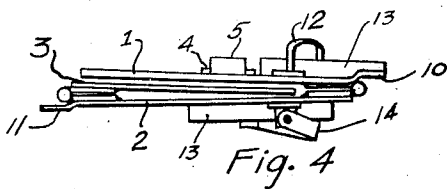


Fig. 4

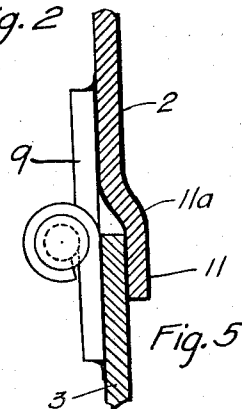


Fig. 5

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UNITED STATES PATENT OFFICE

2,020,702

PROTECTIVE SHIELD

Samuel Russell, Kansas City, Mo., by decree of
court to Ennis Russell, widow

Application July 7, 1933, Serial No. 679,413

6 Claims. (Cl. 89—36)

This invention relates to a portable bullet proof protector shield designed to be carried so as to protect the user from bullets. It is particularly adapted for use by officers of the law in subduing riots and mobs or prison breaks.

It is an object of this invention to provide a portable shield which can be folded into a small space and conveniently carried when not in use.

Another object of this invention is to provide a device which will afford the maximum protection while providing the maximum of freedom of movement to the user.

Another object of the invention is to provide a protector device of the type described which will protect all portions of the user's body and which can be placed into action position from the folded position within a minimum interval of time.

A further object of my invention is to provide a protective device which will be very light and can be carried by the person to be protected.

In prior shield protecting devices the shields are of the rigid type and are therefore of no practical value where such devices are to be transported in vehicles or carried by the person to be protected and are required to be brought into action in a very short period of time. Likewise, the prior devices do not afford protection to all parts of the body and at the same time allow free movements of the body of the user. The so-called bullet proof vests are uncomfortable to the wearer and are of no great value unless worn constantly and cannot be readily discarded when not needed, as when it is necessary for the officer to give chase to a fugitive. Also these devices do not afford protection to the head and lower parts of the body.

My invention has been designed to eliminate these practical disadvantages of the devices known to the prior art, and is illustrated by way of the accompanying drawing, in which:

Figure 1 is a view of the backside of the protective shield made in accordance with my invention;

Figure 2 is a front view of the protective device;

Figure 3 is a side view of Figure 1;

Figure 4 shows the protective device in its folded position;

Figure 5 is a detail view of Figure 1 along line A—A.

The protective shield as constructed in accordance with this invention is made up of an upper section 1 which is connected to an intermediate section 2, by means of hinges 6 and 7, and a lower section 3 which is foldably connected to section

2 by means of hinges 8 and 9. The hinges are preferably placed near the edges of the sections so that bullets will not bend the edges and render the shield inoperative. A depending flange 10 which is integral with upper section 1 serves with the integral rim 10a to strengthen the lower edge of the upper section 1 and the upper edge of section 2 thereby preventing the impact of a bullet from deforming the edges which would prevent the sections from folding into closed position. Similarly, the flange 11 and the integral rim 11a prevent bullets from deforming the lower edge of section 2 and the upper edge of section 3.

A handle 12 is secured to the upper section 1 by any suitably means such as riveting or welding. A cooperating arm loop 14 is secured to the intermediate section 2 by means of ears 15. A resilient pad 13, preferably of rubber is glued to sections 1 and 2 to protect the arm against the shock of the bullet impact. The pad is separated at 17 to allow the top section 1, to fold down over section 2. A port hole 16 is provided in the intermediate section 2 through which a gun may be fired. The bullet proof window 5 is held by a frame 4 across an aperture in section 1. This allows the user of the shield a full view to the front while being fully protected from gunfire and serves as a sighting device enabling the user to more effectively direct gunfire.

Figure 4 shows the protective shield in a folded position which makes it very convenient to carry. This is what I call the carrying position as distinguished from the action position as shown in Figs. 1, 2 and 3.

The operation of the protecting shield device is as follows: Assuming the shield to be in the carrying position, the user grasps the handle 12 with the right hand. As the handle is lifted the upper section 1 unfolds allowing the lower section to drop down. The shield assumes a substantially vertical position when supported by the handle. The left arm is then thrust through the arm loop 14 and the handle 12 is grasped by the left hand. The right hand is then free to direct gunfire through the hole 16. The flange 10 on section 1 and the flange 11 on section 2 prevent the respective sections from folding back against the user of the shield. The handle 12 acts primarily as a support for the shield while the arm loop 14 acts as a guide for maintaining the shield in a fixed position relative to the user's arm. The loop is pivoted to the ears 15 so that it may accommodate itself to various arm lengths, and also reduce the space required for the shield when the same is in the carrying position.

tion. The handle 12 is preferably fixed rigidly to the upper section so that it can be easily grasped in case of emergencies.

In the use of my invention it is important that the handle be secured to one section and the arm loop be placed on another section of the shield so that the weight of the shield may be carried at times by the arm loop 14 fitting into the crotch of the forearm to rest the arm of the user while the hand on the handle 12 of the section 1 will prevent the latter section from folding over the front of the intermediate section. This construction also allows the handle 12 to be on top of the folded shield where it can be easily grasped. The resilient pad 13 prevents injury to the arm of the user which might otherwise be caused by a bullet impact upon the shield. The window 5 is made of heavy bullet-proof glass and is placed at a point in the upper section so that the user may have a direct view to the front while being fully protected from gunfire. The sections 1, 2 and 3 are made of any impact resisting material such as steel or other metal. The intermediate section is slightly longer than either end section to enable the end sections to be folded thereover. The total length of the shield is such that the body of the user is substantially protected from head to feet.

It will be obvious to those skilled in the art that various changes and modifications may be made in the construction of my invention without departing from the scope thereof.

I claim:

1. As an article of manufacture, a portable protective shield comprising an upper end section, an intermediate section, a lower end section, a handle on said upper section, an arm loop on said intermediate section, hinges connecting said sections for folding the upper end section and the lower end section against one side of the intermediate section, an offset overlapping flange on two of said sections whereby the upper and lower end sections are prevented from folding against the other side of said intermediate section, said overlapping flange also serving to strengthen the edges of said sections.

2. A protective shield device comprising an intermediate section, an upper end section, a lower end section, a handle on one side of said upper section, hinge members connecting said sections, the lower section adapted to be folded against said intermediate section, and the said upper section adapted to fold over said lower section leaving the handle exposed, whereby said handle is accessible for quickly unfolding said shield.

3. A protective shield device comprising a cen-

tral section, a top section and a bottom section, said sections being foldably connected together, a handle on said top section, an arm loop on said central section, means on one of said sections for preventing said top section from folding back onto said arm loop.

4. A portable protective shield for use as a protection for individual persons, said shield comprising a plurality of sections foldably secured together, the total length of said shield being at least sufficient to substantially cover the vital organs of the person to be protected, said shield comprising an upper end section, an intermediate section and a lower end section, a rigid handle on said upper section, hinge members connecting said sections, said lower end section adapted to be folded against said intermediate section and said upper section adapted to be folded over said lower section when said lower section is folded against said intermediate section, whereby said rigid handle on said upper section is readily accessible for quickly unfolding said shield into an extended position by merely supporting the weight of said shield by said handle.

5. A portable protective shield comprising a pair of plates hinged together marginally to fold or collapse forwardly to dispose their front faces in close proximity or to unfold for disposition one above the other, means for preventing reverse or rearward collapsing action of the plates when in their unfolded position and for reinforcing the hinged edges of the plates when unfolded, and an arm loop and handle respectively secured to the rear faces of said plates, the arm loop occupying a position below and the handle a position above the hinge line when the shield is in open or operative position.

6. A portable protective shield comprising a pair of plates hinged together marginally to fold or collapse forwardly to dispose their front faces in close proximity, or to unfold for disposition one above the other, one of the plates having an off-setting marginal flange for overlapping the hinge line when the plates occupy the last-named relation, to reinforce the shield at the hinge line and prevent backward folding action from said last-named position, a handle and an arm loop secured to the rear sides of said plates above and below the hinge line respectively, and shock-absorbing cushions secured to the rear sides of the plates, the cushions conjointly extending from the handle to the arm loop and their adjacent ends approximately coinciding with the hinge line when the shield is in open operative position.

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