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Cutler

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[54] **PROTECTIVE SHIELD DEVICE**

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[52] **U.S. Cl.** ..... **109/49.5,** 2/2.5, 24/67.5, 89/36 D

[51] **Int. Cl.** **F41h 5/08**

[58] **Field of Search** 109/49.5; 24/67.11, 24/67.5; 2/2.5; 108/43

[56] **References Cited**

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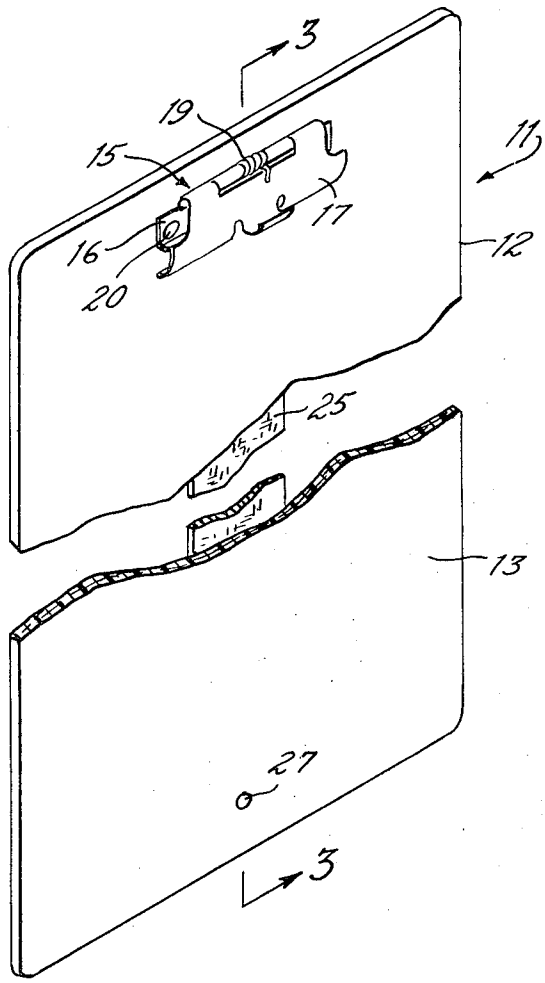
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[57] **ABSTRACT**

A penetration resistant panel, paper-holding means on one side of the panel, and handgrip means on the other panel side.

3 Claims, 3 Drawing Figures



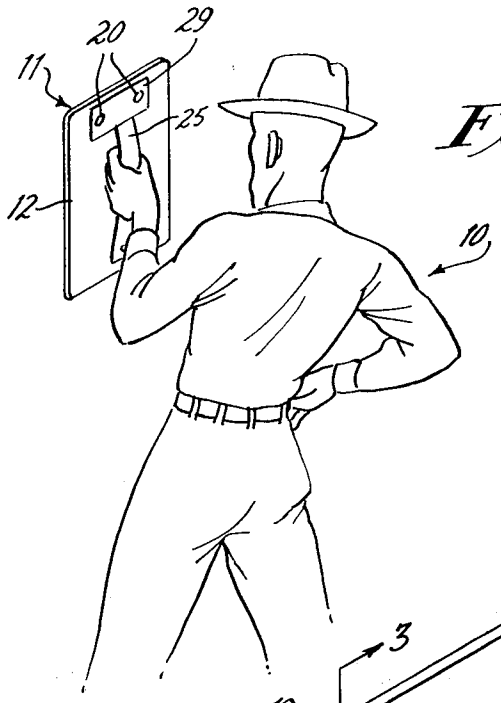
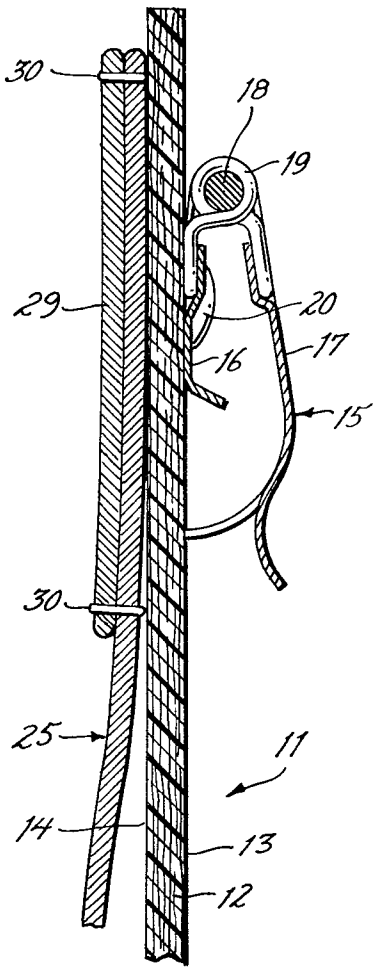


Fig. 1.



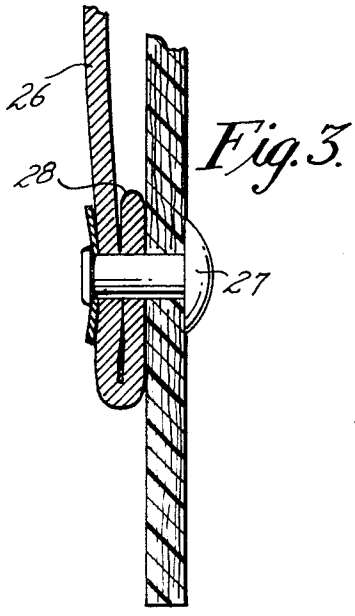


Fig. 3.

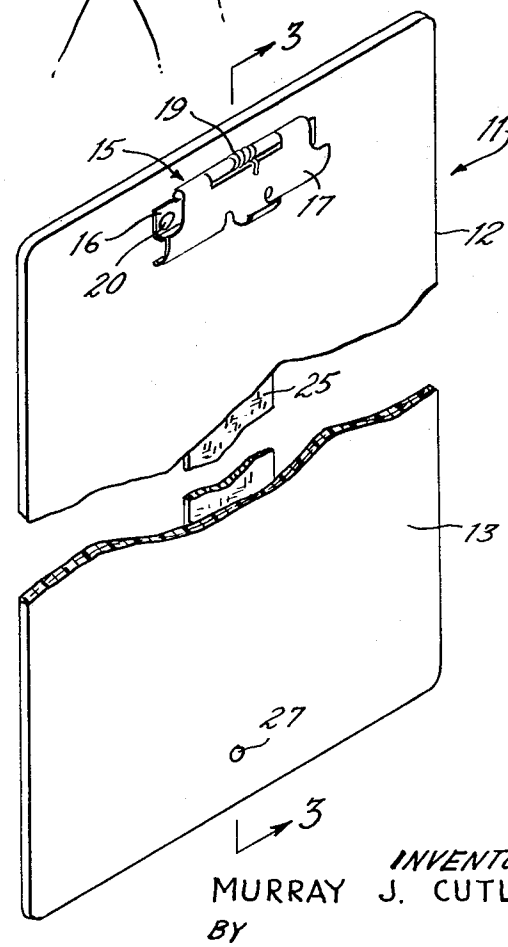


Fig. 2.

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PROTECTIVE SHIELD DEVICE

BACKGROUND OF THE INVENTION

As is well known to those versed in the art, police officers require additional protection from many forms of attack. While a wide variety of protective devices have been proposed, these have not found wide acceptance and general usage primarily due to their size and bulk, and resultant awkwardness and inconvenience in use, as well as their lack of reliability in operation, and complexity in structure and relative high cost of manufacture.

SUMMARY OF THE INVENTION

It is, therefore, an important object of the present invention to provide a protective device for police officers and other legal uses which overcomes the above mentioned difficulties, is relatively small and compact, and light in weight for convenience in handling, which is extremely simple and durable in structure for high reliability throughout a long useful life, which can be economically manufactured for sale at a reasonable price, and which provides multiple usage and purpose so as to obviate the need for a conventional clipboard, writing surface or the like.

Other objects of the present invention will become apparent upon reading the following specification and referring to the accompanying drawings, which form a material part of this disclosure.

The invention accordingly consists in the features of construction, combinations of elements, and arrangements of parts, which will be exemplified in the construction hereinafter described, and of which the scope will be indicated by the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a rear perspective view showing a protective device of the present invention in one operative condition of use by a police officer, one face of the device being illustrated.

FIG. 2 is a perspective view showing the device of FIG. 1 apart from the police officer, illustrating the other face thereof, and broken away to permit of enlarged scale.

FIG. 3 is a sectional elevational view taken generally along the line 3—3 of FIG. 2.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now more particularly to the drawings, and specifically to FIG. 1 thereof, a police officer, operator or user is shown therein and generally designated **10**, while the protective device or shield of the present invention is generally designated **11**, and illustrated in shielding relation with respect to the officer, being held by the officer's hand in position to protect the lungs, heart and head area.

The protective device or safety shield **11** is shown in greater detail in FIGS. 2 and 3, there being illustrated as including a generally rectangular board or panel **12**, which may be of a size approximately 10 inches by 15 inches, or other suitable size. The panel or board **12** has its opposite faces **13** and **14** generally flat and parallel to each other, for a minimum transverse panel dimension consistent with maximum thickness and penetration resistance. Advantageously the corners and edges

of the panel **12** may be rounded, beveled or otherwise smoothed.

In practice, it has been found uniquely advantageous to fabricate the panel or board **12** of fiber glass reinforced plastic, such as woven roving of fiber glass filaments reinforcing a two-part plastic composition preferably cured at an elevated temperature of not less than 180°F. and under a pressure of not less than 80 pounds per square inch. A panel thickness of 5/32 inch has been found satisfactory.

Affixed to one face of the board or panel **12**, adjacent to one end thereof, is a paper holder or clip generally designated **15**. Thus, as best seen in FIGS. **2** and **3**, the clip **15** is secured fast to the panel surface or side **13** adjacent to the upper end edge or extremity thereof. While the clip **15** may be conventional, a clip structure of the present invention should include a mounting member, such as the mounting member or backplate **16** secured fast to the board, and a holding member or clamp, such as the member or plate **17** connected to and resiliently urged toward the mounting member **16**. In the illustrated embodiment, the holding or clamping member **17** is swingably connected, as by a pivotal connection including pin **18**, to the mounting member or plate **16**. Further, the holding member **17** is resiliently urged toward the mounting member or plate **16** by spring means, such as the torsion coil spring **19**.

As best seen in FIG. **2**, the paper holder or clip **15** is disposed generally transversely of the panel or board **12**, being secured fast thereto by suitable securement means, including a pair of rivets or fasteners **20** spaced laterally or transversely with respect to the board.

On the opposite side or face **14** of the panel or board **12**, extending generally longitudinally thereof between the opposite extremities, generally vertically as illustrated in the drawing, is a handgrip or handle generally designated **25**. In particular, the handgrip **25** may include an elongate strap or strip of webbing **26** having its lower end region folded under, or inwardly and upwardly, as best seen in FIG. **3**, and there securely anchored to the lower end region of the board **12** by suitable fastener means, such as a fastener or rivet **27**. The inwardly and upwardly folded lower end region or flap **28**, see FIG. **3**, serves to reinforce the anchored lower end region of the web or strap **26**, while spacing the latter slightly from the board surface **14** for convenient finger entrance therebetween.

The opposite, upper end region of web or strap **26** is secured to the opposite upper end region of the board **12**. More specifically, a transversely extending web or strap **29** is disposed in crossing relation with the upper end region of web or strap **26**, being secured to the latter by suitable means, such as stitching **30**. The transverse web or cross part **29** is disposed in facing relation with the inner side of the clip mounting member **16**, extending laterally beyond opposite sides of the web **26**, and has its opposite end regions anchored to the board or panel **12** by means of the securing elements, fasteners or rivets **20**. Thus, the rivets **20** and cross piece or web **29** combine to define securing means effectively securing the upper end region of web or strap **26** to the board or panel **12**.

In usual or nonemergency conditions, the protective device **11** may serve in the conventional manner of a paper holding writing surface or clip board, the clip serving to hold paper on the board surface **13**. However, should the need arise the protective device may

immediately be employed as an effective shield being held in protective relation with the body, as shown in FIG. **1**, by the user's hand engaged in the handgrip means **25**.

From the foregoing it will be appreciated that the present invention provides a protective device or shield which is highly effective both as an ordinary record-keeping support or writing surface, and also as a bullet-proof shield. In tests the instant protective device has been found to stop a **38** caliber bullet fired point blank at a distance of 2 ⅓ yards.

Although the present invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is understood that certain changes and modifications may be made within the spirit of the invention.

What is claimed is:

1. A protective device comprising a panel of penetration resistant material, a mounting member fixed to said panel on one face thereof, a clamping member connected to and resiliently urged toward said mounting member for holding papers on said one panel face, and hand-grip means on the other panel face for manipulating said panel in body protecting relation, said hand-grip means comprising a strap having a pair of spaced regions fixed to said panel, securing means securing one of said strap regions and said mounting member to said panel, and fastener means securing the other strap region to said panel, said securing means comprising a cross part extending transversely of and connected to said one strap region, and fasteners extending through opposite ends of said cross part, mounting member and intermediate panel portion.

2. A protective device according to claim **1**, said panel being fabricated of fiber glass reinforced plastic.

3. A protective device according to claim **2**, said panel being generally rectangular with said paper-holding means adjacent to one extremity and said handgrip means extending generally between said one extremity and the opposite extremity.

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