Aug. 4, 1936. E. L. HITE 2,050,178

BULLET SHIELD

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Fig. 1.

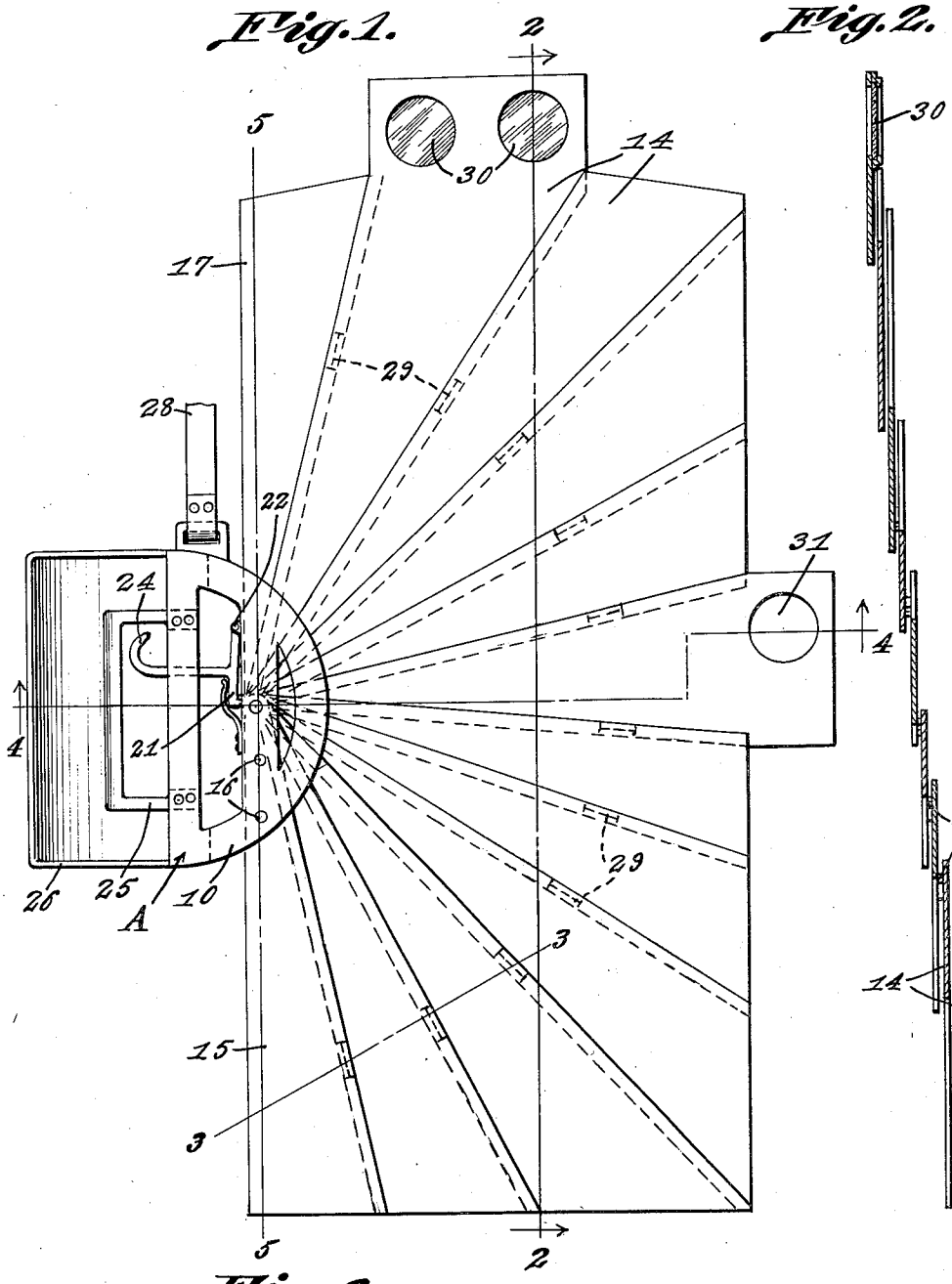
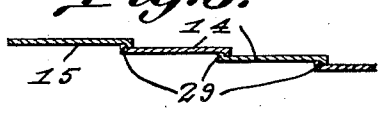


Fig. 2.

Fig. 3.



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Fig. 4.

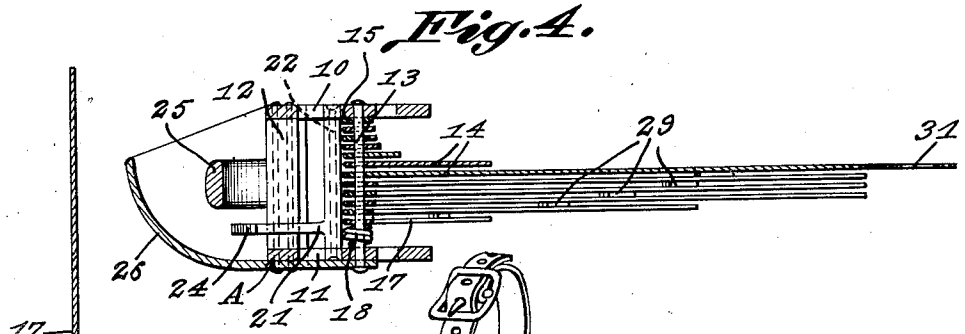


Fig. 5.

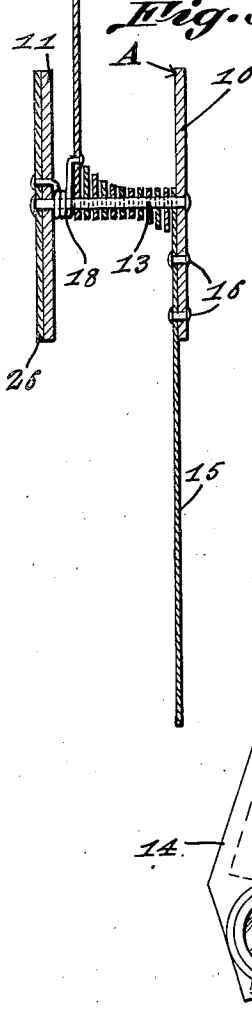


Fig. 6.

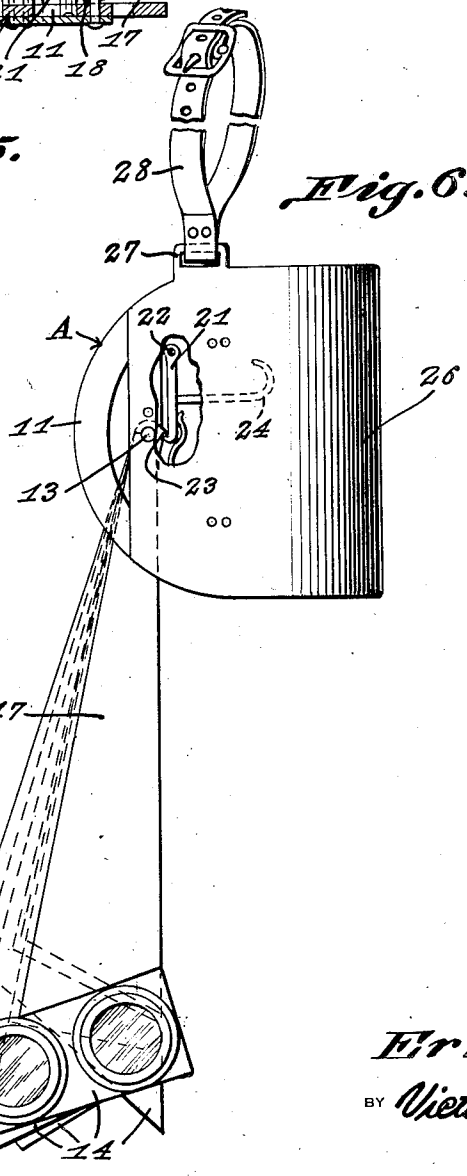
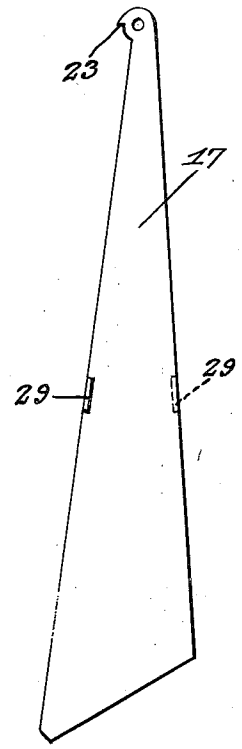


Fig. 7.



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Patented Aug. 4, 1936

2,050,178

UNITED STATES PATENT OFFICE

2,050,178

BULLET SHIELD

Ernest L. Hite, Sedalia, Mo.

Application November 20, 1934, Serial No. 753,929

1 Claim. (Cl. 89—36)

The invention relates to a body protective shield and more especially to a collapsible bullet shield.

The primary object of the invention is the provision of a shield of this character, wherein officers of the law, such as policemen, sheriffs, deputies, guards of all State and Federal penitentiaries or the like can be protected from gunfire, the shield being of novel construction as the same is normally in a collapsed condition and when operated will spread in fan fashion to guard or protect the body of the user, the said shield being also usable by employees of banks, filling stations or other public places, businesses or private homes, to guard against gunfire of robbers, outlaws, gangsters or any attempt at body injury.

Another object of the invention is the provision of a shield of this character, wherein the same is constructed with a plurality of swinging blades, these being extended and collapsed, the extending of the blades being effected through the operation of a trigger which is hand controlled, and when the blades are extended the human body will be protected from injury by gunfire or otherwise, the shield being adaptable more especially for officers of the law.

A further object of the invention is the provision of a shield of this character which is simple in construction, thoroughly reliable and efficient in its purpose, bullet-proof, strong, durable, readily and easily operated, and inexpensive to manufacture.

With these and other objects in view, the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described in detail, illustrated in the accompanying drawings, which disclose the preferred embodiment of the invention, and pointed out in the claim hereunto appended.

In the accompanying drawings:

Figure 1 is an elevation of the shield constructed in accordance with the invention and shown extended for protection to the human body.

Figure 2 is a sectional view on the line 2—2 of Figure 1 looking in the direction of the arrows.

Figure 3 is a sectional view on the line 3—3 of Figure 1.

Figure 4 is a sectional view on the line 4—4 of Figure 1 looking in the direction of the arrows.

Figure 5 is a sectional view on the line 5—5 of Figure 1.

Figure 6 is an elevation partly broken away showing the shield in collapsed or folded condition.

Figure 7 is a plan view of one of the fan-like blades of the shield.

Similar reference characters indicate corresponding parts throughout the several views in the drawings.

Referring to the drawings in detail, the shield comprises a frame A including spaced parallel half-circular plates 10 and 11, respectively, these being united in their spaced relation to each other through the medium of a webbing or spacer part 12. Fixed transversely in these plates 10 and 11 is a journal or shaft 13 swingingly supporting a series of fan-like blades 14, one outermost one 15 of which is riveted or otherwise made fast, as at 16, against swinging movement, while the other outermost one 17 constitutes the spreader for the blades, it being acted upon by a coiled tensioning spring 18 connected therewith and with the plate 11 next thereto. This spring 18 is coiled about the shaft or journal 13 for the blades.

Arranged between the plates 10 and 11 is a trigger 21, the same being pivoted, at 22, and engageable with latching nibs 23 formed on the blades 14 and 17, the trigger being provided with the finger grip extension 24 located near the handle 25 carried by the plates 10 and 11, so that a person gripping the handle 25 can conveniently actuate the said trigger 21 which latches with the nibs 23 of the blades 14 and 17 and in this condition the blades 14, 15 and 17 are in alignment with each other or in collapsed relation one to the other.

Carried by the plate 11 and extended over the handle 25 is a hand protective guard 26 for covering the hand when gripping the handle 25 of the shield. The plate 10 carries an eye 27 for a shoulder strap 28 so that the shield can be hung from the left shoulder of the user of the device and in its use the left hand of the user grips the handle 25 on inserting the said hand in the guard 26 and the forefinger of this hand will engage with the trigger 21 so that on releasing the trigger the shield will automatically be extended for covering or guarding the body of the user from a point below the crotch to and above the head of such person.

The blades 14, and including the blades 15 and 17, have arranged thereon abutments 29, these being in the path of each other, so that when the blade 17 leads in the opening of the shield under the action of the spring 18, the blades 14, by the arrangement of the abutments 29, will follow successively in their order for the extending of

the shield, as is disclosed in Figures 1 and 2 of the drawings, in a fan-like fashion.

One of the blades 14 has fitted therewith the observation or sight windows 30, these being preferably made from shatter-proof glass or other transparent material of a like nature, while another of the blades 14 has formed therein a firing port 31, these blades with the windows and port being extended beyond the outer ends of the remaining blades of the series, as will be apparent from Figure 1 of the drawings.

As has been stated, normally the shield is collapsed, as is shown in Figure 6 of the drawings, and by hand manipulation, on operation of the trigger 21, the series of blades of the shield will be extended or spread with relation to each other under the action of the spring 18 active upon the lead blade 17, so that the shield will be fully opened and serviceable for protection against body harm or injury, particularly gunfire, the blades of the shield being made from suitable bullet-proof material.

The shield can be opened automatically with great rapidity by reason of the tension of the spring 18. The blades, when in an open or extended position, are in overlapped relation to each other to avoid any open gaps therebetween. The opening or extension of the blades of the shield is limited by the contact of the abutments 29 with each other of the respective blades, as should be apparent from Figure 2 of the drawings.

It is to be understood that in the wearing of the shield the blade part 15 is lowermost when the shield is suspended from the shoulder of the user and the lead blade 17 swings outwardly and upwardly with the blades 14 following for the opening of the shield or extending thereof to protect the body of the wearer against gunfire or other injury during encounter with an outlaw.

What is claimed is:

A steel fan shield which includes a frame adapted to be supported by a shoulder strap on the wearer, a shaft rotatably mounted in the frame, a fan blade fixed to the shaft and other fan blades pivoted on said shaft, a coiled spring on the shaft and having one end fixed to the frame and its other end to the fan blade which is fixed to the shaft, a dog on the shaft, a spring engaging the dog to hold the shaft from turning by the influence of the coiled spring, a trigger for operating the dog, contact elements on the opposed edges of the fan blades whereby when the dog is retracted to permit said blades moving to spread or closed position and said blades being held in such spread or folded position by the dog, and one of said fan blades being fixed to the frame in the path of contact with the blade adjacent thereto for limiting the opening or spreading of the other fan blades under the influence of the spring.

ERNEST L. HITE.