Nov. 7, 1944. J. S. WHITE 2,362,040

PORTABLE BULLET SHIELD

Filed April 29, 1942

FIG. 1.

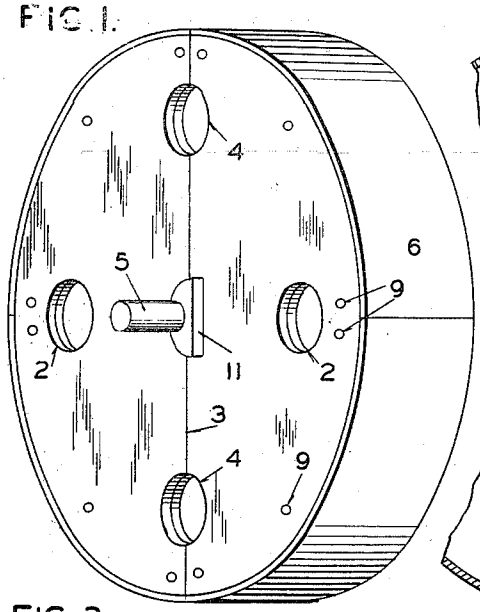


FIG. 2.

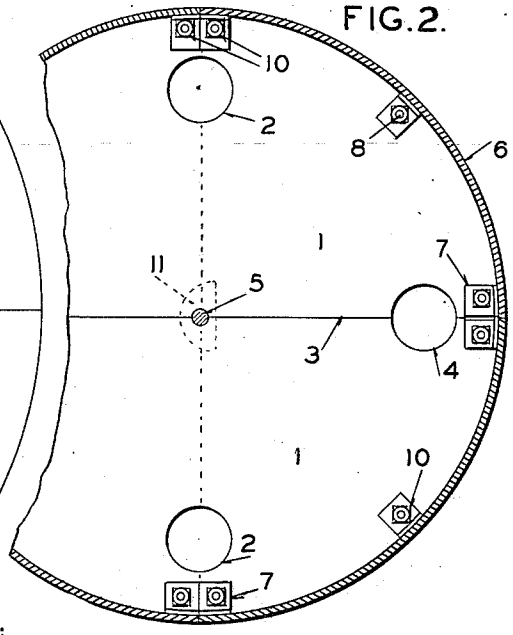


FIG. 3.

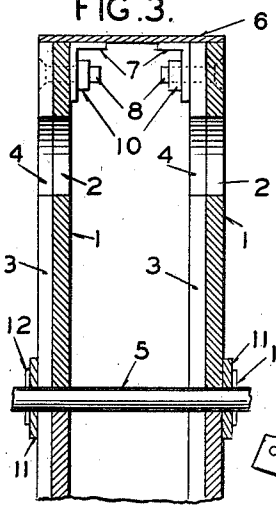


FIG. 4.

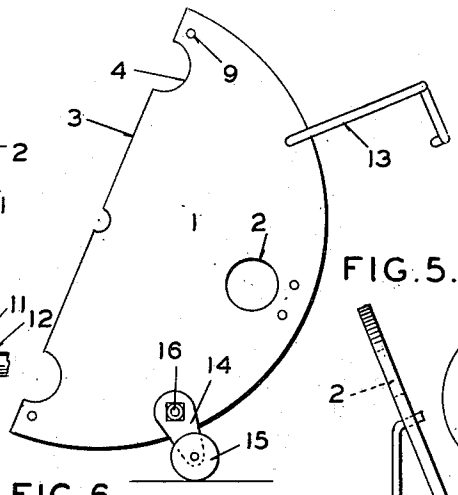


FIG. 7.

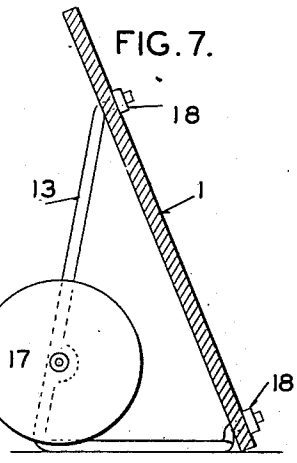


FIG. 5.

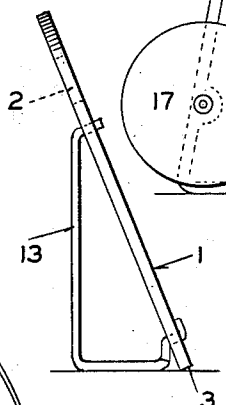
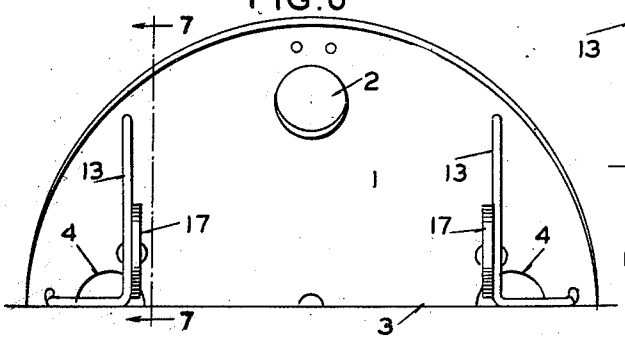


FIG. 6



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2,362,040

PORTABLE BULLET SHIELD

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Application April 29, 1942, Serial No. 440,929

5 Claims. (Cl. 89—36)

My invention relates to portable bullet shields suitable for the protection of individual soldiers during military operations, particularly in advance movements.

The object of my invention is to provide shields of such form that a plurality of them may be assembled into a structure in the form of a drum or roller which in itself will constitute a mobile unit that may be easily rolled over the ground even when the latter is in unfavorable condition.

Further, I provide means for facilitating the movement of the individual shields after the unit has been disassembled into its component parts.

In the accompanying drawing which illustrates a drum assembly made in accordance with my invention, Figure 1 is a perspective view; Figure 2 is a vertical section transverse to the axis; Figure 3 is a vertical section taken at right angles to Figure 2; Figure 4 is a side view of a shield in position for movement; Figure 5 is an end view of the shield in operative position; Figure 6 is a rear view of a shield in operative position but showing a slight modification; and Figure 7 is a section taken on the line 7—7 of Figure 6.

Each individual shield comprises a semi-circular segment 1 of metal, preferably hardened steel, and should be of sufficient thickness to deflect a bullet and of sufficient diameter to afford adequate protection to a soldier. A thickness of one-half inch and a diameter of forty-two inches I deem adequate. Adjacent the edge and located centrally of the width of the shield is a firing opening 2. This hole should be of sufficient size not only to permit the sighting and firing of a rifle but to allow the passage of a person's hand for a purpose to be hereinafter described. Each end of the unit is composed of four of the segments 1 arranged in pairs with their bases 3 abutting to form complete disks. The dividing lines of the two pairs of disks are arranged at right angles to each other. To prevent the opening 2 from being closed by the adjacent disk, semi-circular openings 4 are formed in the base at the proper points to register with the opening 2 when the disks are assembled. Two pairs of disks are assembled on axle 5, a short distance apart, and the drum or roller is completed by the application of a tire 6, preferably formed of four pieces. This tire is made of thin sheet metal and may vary in width to suit the condition to be met. The tire is provided with brackets 7 for securing it to the disks by means of screws or bolts 8 passing through holes 9 in the disks and provided with nuts 10. The roller is held from movement on the axle by washers 11, at least one of which is preferably made removable, as by a cotter pin 12 (Figure 3). This removable feature is not essential as the roller may be dismantled solely by the removal of nuts 10. To conserve metal, the washers may be made from the pieces removed from the semi-circular openings 4.

When in use the shield is supported on its base 3 in a slanting position by a stand 13 hooked into two of the holes 9 in the shield. To permit the easy shifting of a shield, each is provided with an arm 14 carrying a small wheel 15. The arm may be secured in position by a bolt 16 passing through one of the holes 9. The arm is so positioned that the wheel will project beyond the periphery of the shield and out of contact with the ground when the shield is resting on its base in operative position. When the shield is to be moved, it is tipped up edgewise, as shown in Figure 4, to bring wheel 15 into contact with the ground. The stand 13 may be hooked into a single hole 9 to provide a convenient handle for hauling the shield. Wheels 15 may be economically formed from the pieces removed from the circular opening 2.

In Figures 6 and 7 I have shown a slight modification in which two stands 13 are employed for each shield instead of one. In this construction the arm 14 and wheel 15 are omitted and a pair of wheels 17 are carried on the stands in such position as to be out of contact with the ground when the shield is resting on its base, as shown in Figure 7. To bring the wheels into operation the shield is tipped backward. No handle is needed to haul the shield as its top edge may be readily grasped through the firing opening 2. As this arrangement requires the use of more wheels than would be furnished by the pieces removed from opening 2, I have shown larger wheels 17 which, under certain conditions, is preferable. When this form is employed the ends of the stands are preferably secured to the shield by nuts 18 instead of being hooked into place.

It will be seen that my device provides a mobile unit which may readily pass over difficult ground, such as sandy or muddy soil. The units may be quickly dismantled by passing the hand through the openings in the disks and removing the nuts 10. Each unit provides eight effective shields. Further, not only do the units not require the use of any truck or other carrier, but they themselves provide effective rollers to smooth a road for the passage of troops when this is found desirable. For this purpose two or more units may be mounted side by side on one axle. It is an

added advantage of my device that the parts may be shipped to the point of assembly in compact form as the parts may be packed flat. The tire is of sufficiently thin metal to allow its sections to be bent out straight.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a device of the class described, a plurality of semi-circular plates each provided with a base and a firing opening, thereby forming a protective shield, means for securing said plates together to provide a circular member, a detachable stand for each segment to support the same on its base in inclined position, and a wheel carried by the stand, said wheel being out of contact with the ground when the shield is in operative position but contacting therewith upon tipping of the shield.

2. In a device of the class described, a plurality of semi-circular flat plates each provided with a base and a firing opening, whereby each plate forms an individual protection shield, means for securing said plates together to provide a circular assembly, a second similar circular assembly spaced laterally a substantial distance from the first named assembly, and a detachable sectional tire surrounding and extending across both assemblies to form therewith a road rolling unit.

3. In a device of the class described, two pairs of semicircular flat individual shield members, the members of each pair being positioned base to base and the members of the pairs overlapping to form a circular assembly, a second similar circular assembly spaced laterally a substantial distance from the first named assembly, a sectional tire surrounding and extending across both assemblies and forming therewith a road rolling unit, and fastening means passing through the pairs of shields of assembly to hold them in position, said fastening means also serving to detachably secure the tire.

4. In a device of the class described, a plurality of semi-circular flat plates each provided with a base and a firing opening, whereby each plate forms an individual protection shield, means for securing said plates together to provide a circular assembly, a detachable stand for each segment, said stand having two sides approximately at right angles to each other, and a wheel carried by the stand, said wheel projecting beyond one of said sides but not beyond the other, whereby said wheel may be moved into and out of contact with the ground by tipping the shield.

5. In a device of the class described, a plurality of shield plates each provided with a firing opening, the periphery of each plate including an arcuate portion and a straight portion, the arcuate portions of said plates being of like curvature and together approximating an entire circumference, means for securing said plates together with their arcuate portions in curvilinear alignment to form a circular assembly, a detachable tire on said assembly to facilitate the movement of the assembly as a whole, and a wheel carried by each plate for movement of individual shields.

JOHN S. WHITE.