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MISSILE LAUNCHER STABILIZER

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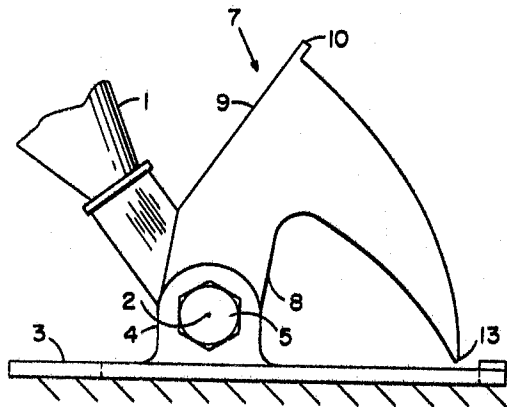


FIG. 2

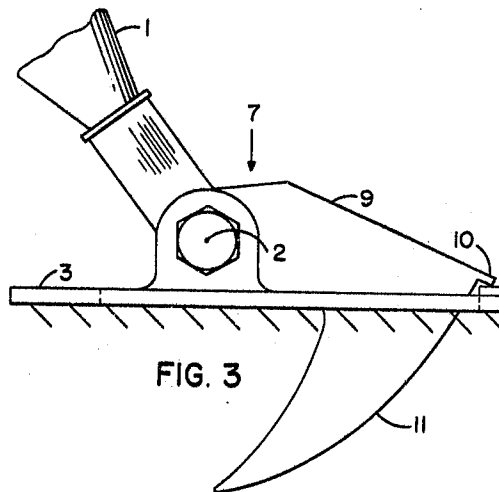


FIG. 3

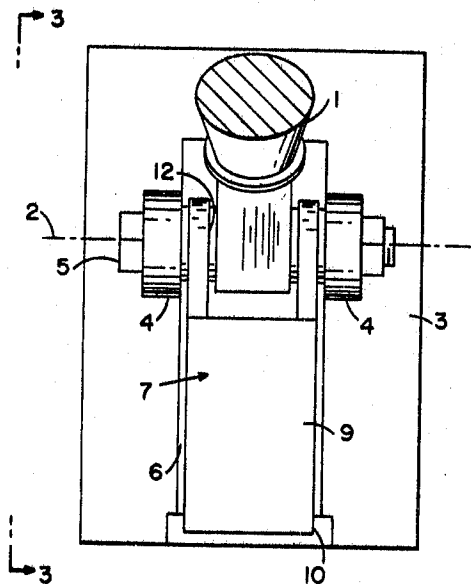


FIG. 1

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MISSILE LAUNCHER STABILIZER

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1 Claim

ABSTRACT OF THE DISCLOSURE

A missile launcher stabilizer for attachment to the lower end of the missile launcher legs to provide stability to the launcher during the firing of missiles from the launcher. The stabilizer is a two-piece attachment consisting of a base plate and an anchor. The anchor includes a pivotal end, a shank connected to the pivot end, an operator engaging section adjacent to the shank and an angular surface piercing and engaging claw extending from the operator engaging section.

BACKGROUND OF THE INVENTION

In the past missile launchers had a base plate attached to the launcher legs for supporting the launcher upon the surface. Due to the overturning moment applied against these legs, as a reaction to the firing of a missile, the legs shifted from their original position, either after the initial firing or during additional firing of missiles, and were required to be reset, thus resulting in the loss of "missile firing time."

INVENTIVE PRINCIPLE

The present invention has provided a solution to this problem by the addition of an opening in the base plate and an anchor pivotally attached to the launcher legs. When the anchor is actuated, the surface piercing and engaging claw will pass through the opening in the base plate and be embedded in the surface beneath the base plate.

It is, therefore, an object of the present invention to provide means actuated by the launcher operator for securing the missile launcher to a surface beneath the base plate of a missile launcher.

It is a further object of this invention to provide the stabilizer with means to insure that the anchor engages the surface at the optimum embedded position.

This invention may be better understood from the following detailed description taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

FIGURE 1 is a plan view shown in the embedded position illustrating a stabilizer attached to one of the missile launcher legs embodying the principles of my invention.

FIGURE 2 is a side elevation showing the stabilizer before engagement with a surface.

FIGURE 3 is a side elevation view taken on line 3—3 of FIGURE 1.

A preferred embodiment is shown in FIGURE 1, wherein a launcher leg 1 is connected at the pivot point 2 located at the bottom of the leg. A base plate 3 is also connected at pivot point 2 and supports leg 1 on a surface. Plate 3 has a pair of ears 4 with apertures therein

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for engagement at pivot point 2 with pivot pin 5. Plate 3 also has an opening 6 therein to allow pivoted anchor 7, when actuated, to pass therethrough and into engagement with the surface therebeneath. Pivot pin 5 connects leg 1, plate 3 and anchor 7 in mutually pivotable relationship.

The anchor consists of a shank portion 8, a flat surface 9, flange 10 and piercing claw 11. The shank portion has an aperture 12 for receiving pivot pin 5. Flat surface 9 is integral with shank portion 8 and at an oblique angle with the shank portion. This flat surface is used by the launcher operator to force anchor 7 into engagement with the surface. Flange 10, which is an extension of flat surface 9, extends beyond the main body portion of piercing claw 11 and acts as a limit stop for the piercing claw. As claw 11 approaches its optimum embedded position, flange 10 will come into engagement with the outer edge of the base plate limiting further embedding of the claw into the surface, thereby preventing the claw from going past its optimum embedding position and weakening its anchoring function. Thus, flange 10 not only insures that claw 11 will be in its optimum embedded position but it also provides a greater resistance to the overturning moment applied against the leg.

Piercing claw 11 consists of a body having a thickened portion near flat surface 9 and tapers to a piercing point 13 at its lower end so as to provide easy entry into the surface beneath the plate.

The operation of the stabilizer is as follows: the missile launcher leg and base plate are set in their desired position upon a surface. The operator then exerts a force upon the flat surface of the anchor which in turn causes the piercing claw to pivot about the pivot pin and through the opening in the base plate. The claw pierces the surface beneath the plate up to its optimum position at the point where the flange engages the outer edge of the base plate.

I claim:

1. A stabilizer for a missile launcher having a leg comprising: a plate having a pair of ears provided with apertures, said plate pivotally connected to said launcher; an anchor pivotally secured to said launcher and plate, said anchor provided with an angular piercing claw for engagement with the surface supporting said launcher; means on said anchor for forcing said claw into engagement with said supporting surface, said plate provided with an opening to allow said claw to pass through said plate, a flange on said means for engagement with said plate, whereby said claw is stopped in the optimum embedded position when said flange is engaged with said plate and a pivot pin connecting said plate and said anchor in mutually pivotable relationship to a leg of the missile launcher.

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