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AIMING STAKE HOLDER

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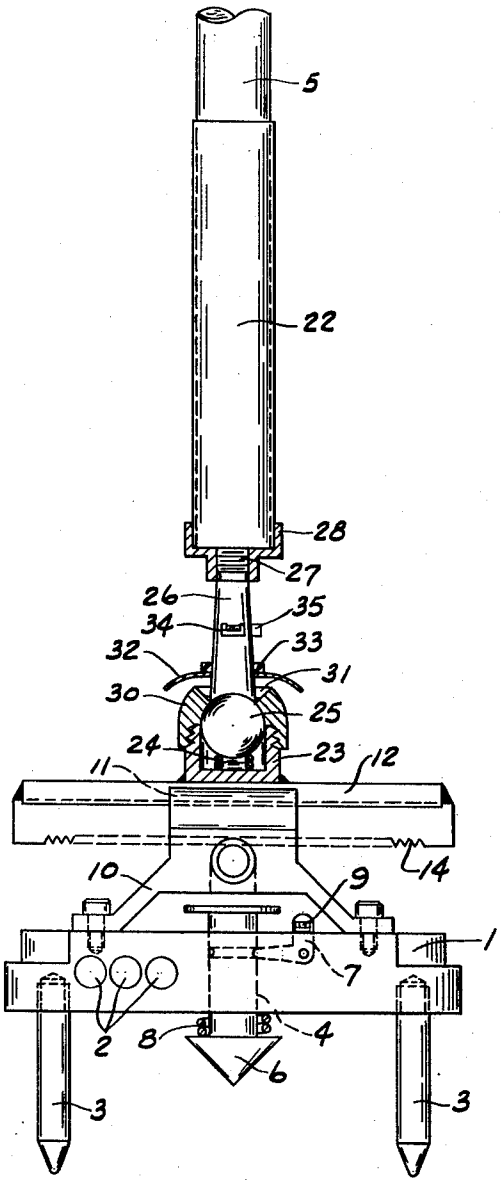


Fig. 1

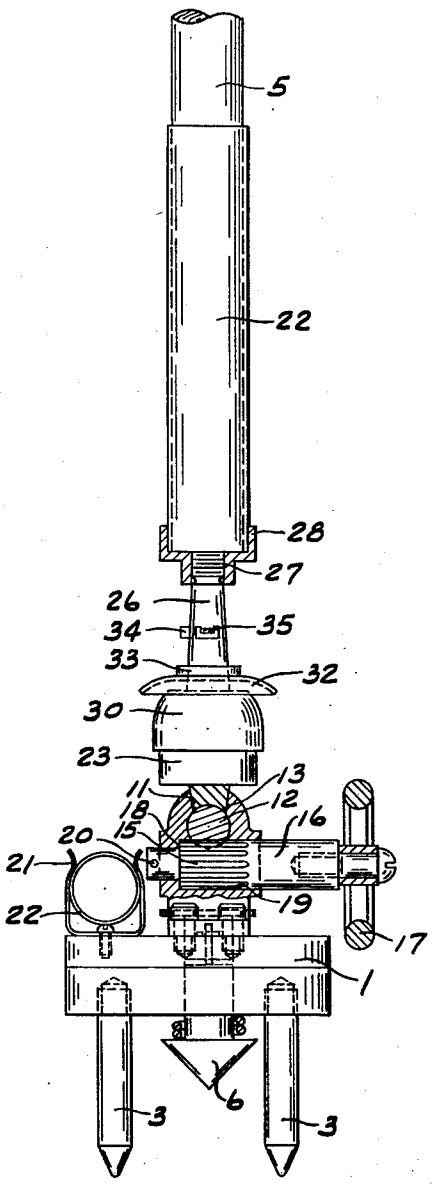


Fig. 2

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AIMING STAKE HOLDER

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3 Claims. (Cl. 33—74)

This invention relates generally to stake holders and more particularly to a stake holder for an artillery aiming or sighting stake holder.

Artillery aiming or sighting stakes are usually iron rods shoved into the ground several rods in front of the gun emplacement. This stake is then used as a reference point in firing. This stake is frequently set under difficulties including under fire, uneven or exposed terrain, or rough and rocky ground that will not take stake. Any one and sometimes all of these conditions prevail.

The present invention provides a relatively heavy base which can be slid along the ground and contains pointed stakes for feet to hold the sighting stake, a laterally adjustable member on which is mounted a swiveled socket. The device is stored as a unit and may be quickly installed with a good degree of safety, and would not be subjected to windstorms or concussion.

Other objects and advantages appear hereinafter in the following description and claims.

The accompanying drawings show for the purpose of exemplification, without limiting the invention or claims thereto, certain practical embodiments illustrating the principles of this invention wherein:

Fig. 1 in side view in side elevation with parts being in section.

Fig. 2 is a view in end elevation of the structure shown in Fig. 1.

Referring to the drawing, the base **1** is of heavy metal and is provided with the three carrier sockets **2** for receiving the pointed feet **3** when not in use. When in use as shown these spikes are threadably engaged in sockets in the underside of the base in properly arranged threaded sockets arranged in triangle relation.

The base **1** is also provided with a centrally disposed aperture **4** large enough to receive the sighting stake **5** if the superstructure is removed because of injury or is otherwise destroyed. The hole **4** may be equipped with a center indicator in the form of the spring pressed pointed tool **6** which when released by the pivoted trigger **7** is caused to penetrate into the ground under the force of the spring **8** by pulling out the firing pin **9** from under a shoulder on the trigger **7**. The pointed tool makes a deep impression in the ground and thus marks the center of the sighting rod if the device has been moved.

On the deck of the base is mounted a bridge **10** which has abutments at each end secured to the deck by the mounting screws. A way **11** is formed on the top side of the bridge. This way is in the form of a semicircular bore open at the top to form the opposed guide faces to receive the carriage **12**. The carriage has a sliding fit in the way. The faces **13** on the carriage fit the guide faces of the way and thus guide the carriage. The underside of the carriage is provided with the rack **14** which meshes with the pinion **15** on the shaft **16**, the outer end of which is provided with the hand device such as the wheel **17**. A shoulder **18** on the shaft **16** abuts a mating shoulder in the transverse bore **19** of the bridge. The shaft **16** protrudes through the bridge to receive the pin **20** that holds the same assembled in the bore **19**. Thus the single pin holds the shaft in place and the pinion holds the carriage in place.

The deck of the base **1** is provided with a clip **21** to receive the long tubular socket **22** for holding the staff, sighting rod or aiming stake **5**. Thus each of the feet

3 and the aiming stake holder **22** are neatly stored in the base when not in use.

An outwardly open socket **23** is secured to the top center of the carriage **12**. This socket has the coil spring **24** seated in the bottom to press upwardly against the ball **25** to give it resistance to swinging, turning, or swiveling. The ball **25** has the upwardly projecting stem **26** made integral therewith. The outer end of the stem is threaded at **27** to receive the aiming stake holder base **28**. The ball cap **30** has the opening **31** through which stem **26** extends with room to swing. This cap is threadably engaged on the socket **23** and has an internal spherical sector that engages the upper face of the ball **25** to complete the socket. This spherical surface resists the force expended on the ball **25** by the spring **24**. This force is sufficient to permit the ball to carry the socket **22** and the rod or stake therein to be moved laterally within the bounds between the stem **26** and the opening **31** in the cap **30** and the ball will hold its adjusted position by reason of this spring pressure on the ball. A shield **32** is mounted on the stem **26** to close over the hole **31** regardless of the position of the stem. A rubber stop **33** slides tightly on the stem **26** to hold the shield in place. The stem **26** also carries the leveling bubbles **34** and **35** which are disposed at right angles to each other and when both are set to the level the sighting rod **5** positioned in the socket **22** is vertical.

The use of a single rack and carriage permits the rod to be adjusted transversely of the gun emplacement. If the party setting the stake has communication with the gunner, then a slight lateral adjustment of the vertically disposed stake may be made without disturbing the base. In this manner the gun may be more readily sighted on the stake.

We claim:

1. An artillery aiming stake holder comprising a base, a way mounted on the base and in the form of a rigid member having a bore open along one side to provide opposed guide faces, a carriage of substantially the same cross section as the bore and the opening along its one side, said carriage slidably mounted in said way and having faces engaging said guide faces, a toothed rack on one side of said carriage, a bore disposed transversely of said way and opening thereinto, a shaft journaled in said transverse bore, a pinion on said shaft and meshed with said rack, a hand device on said shaft to rotate the pinion and move said carriage in said way, a socket member on said way, a stem having a ball member frictionally engaged in said socket to hold said stem in a predetermined position relative to said carriage, and an aiming stake holder mounted on said stem to receive and carry the aiming stake when the carriage is moved along said base by said hand device.

2. The structure of claim 1 which also includes leveling means on said stem to position said aiming stake holder vertical.

3. The structure of claim 1 which also includes removable feet on said base, and sockets in said base disposed normally to the horizontal parallel planes passing through the axes of said bores to receive said feet to support said base.

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