May 1, 1951 E. A. JOHNSON 2,551,540

LEASH OR TETHER POST

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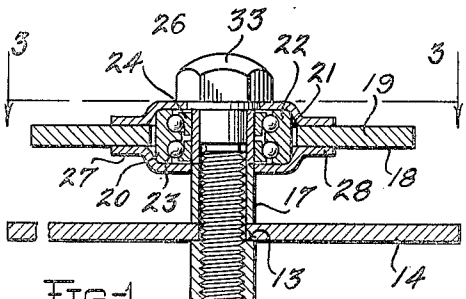


Fig-1

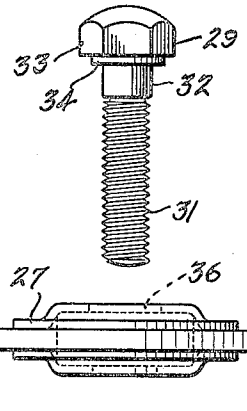


Fig-2

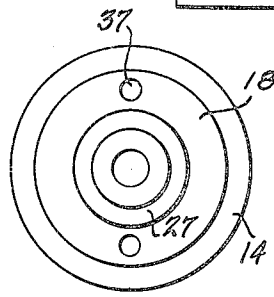


Fig-3

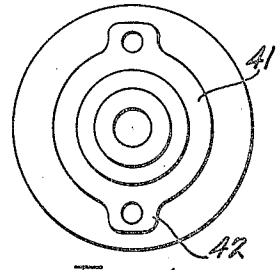


Fig-4

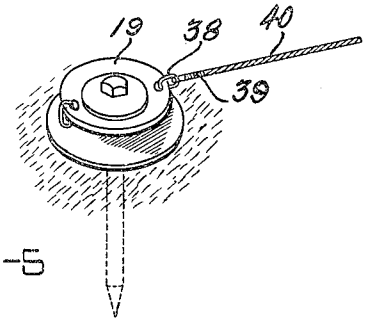


Fig-5

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LEASH OR TETHER POST

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3 Claims. (Cl. 119—121)

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This invention relates to improvements in posts or stakes, and more particularly to those of the type adapted to be utilized in securing an animal on a leash or tether.

In its preferred form, the invention provides a structure that includes a stake adapted to be driven into the ground to a predetermined extent, and a rotatable member to which a leash or tether may be readily attached. The stake is of such length and proportions as to be practically incapable of being removed by a pulling force in any direction other than substantially, directly upwardly. The member is readily rotatable and enables movement of a tethered animal throughout the area of a circle determined by the length of the tether.

It is an important object of the invention to provide a tether post that enables full animal freedom within the limits defined by the length of the tether.

It is another object of the invention to provide a tether post that includes a freely rotatable or swivel member, the member being of such proportions and location as to be practically incapable of becoming entangled with the tether.

Another object of the invention lies in the provision of a tether post that is so ruggedly constructed as to be capable of repeated placement and removal without affecting the swivel freedom of the rotatable member.

Another object of the invention lies in the provision of a tether post that is of simple and inexpensive construction and includes fully enclosed bearings for the swivel member.

Other objects and advantages of the invention will be more fully understood from a consideration of the following specification, taken in conjunction with the accompanying drawing; and in which

Fig. 1 is a side elevational view, partly in vertical section, of a swivel post embodying one form of the invention;

Fig. 2 is a full line exploded view of the structure shown in Fig. 1;

Fig. 3 is a plan view of the rotatable member, being taken substantially as indicated at 3—3 of Fig. 1;

Fig. 4 is a plan view of a slight modification of the swivel member shown in Fig. 3; and

Fig. 5 is a perspective view, partly in dotted line, suggesting use of the device.

Referring more particularly to the drawing, the reference numeral 10 is employed to generally designate a post embodying one form of the invention. This post, throughout a considerable portion of its length, may be solid and terminates in a pointed end 11. The upper end of the post is formed with a threaded opening 12. The diameter of the opening, with respect to the diameter of the post, is such that a substantial top bearing surface 13 is provided. Mounted on the top of the post is a plate 14 which may be circular, as shown. This plate has an opening 16 therethrough. Above the plate 14 is located a sleeve 17 that serves to space the rotatable member 18 a desired distance from the plate 14.

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The member 18 comprises a disk 19, having a large, central opening 21 therein which gives it somewhat the appearance of a conventional washer. A ball-bearing unit 20 is adapted to be mounted in the opening 21. The unit shown includes an outer race 22, balls 23, and inner races 24. A sleeve 26 is press-fitted into the bearing and engages the inner races 24. The outer race 22 is permanently secured to the disk 19 by means of substantially identical top and bottom cover plates 27. The offset flanged rim 28 of each cover plate 27 is welded or otherwise permanently joined to the face of the disk 19. As may be seen in the drawing, the outer race 22, by means of the cover plates 27, is made fast to the disk 19, whereas the inner races 24, through the press-fit, are required to move with the sleeve 26.

The post 10, plate 14, sleeve 17, and member 18 are united through use of a cap screw 29. The threaded portion 31 of the screw projects freely through at least a part of sleeve 26, all the way through sleeve 17, plate 14, and engages the threads of the opening 12 of the post. Near its upper end the screw 29 is formed with an annular surface 32 which, when the device is assembled, lies within and has press fitted engagement with the inner surface of the bearing sleeve 26. Above the portion 32 and directly beneath the head 33, the screw is formed with an annular shoulder 34. This shoulder is adapted to freely enter the opening 36 in the upper cover 27 and enables the head 33 to so closely approach the top surface of the upper bearing cover 27 as to exclude all possibility of entry of dirt or moisture into the bearing parts. One or more openings 37 may be made in the disk 19 for the purpose of mounting a ring or link 38, to which, through any convenient snap-fastener 39, a leash or tether 40 may be attached.

The modification shown in Fig. 4 merely suggests the use of a rotatable member 41 having a pair of opposite, laterally extending ears 42 to which a leash or tether may be attached in the

manner above described. These ears may be of the lengths suggested, or of increased length, as required.

It is to be particularly noted that when the screw 31 is assembled with the various parts of the device, it has direct axial bearing on the post 10, not only through its threaded portion, but also through shoulder 34, sleeve 26, sleeve 17, and plate 14. Thus it will be seen that all of the elements that are interposed between the shoulder 34 of the screw head and the surface 13 of the post, constitute a multiple-part sleeve. In use, the device is required to be driven into almost any kind of ground, and blows on head 33 to force the post into the ground will, by reason of the described structure, in nowise affect the free rotatability of the member 18. In other words, the bearing located in the member can not be jammed through blows applied to the head of the screw since such force is taken care of in the manner shown and described. It is also to be particularly noted that the post can be driven into the ground only to an extent that the plate 14 comes into contact with the ground. Furthermore, due to the close proximity of the member 18 with the plate 14 and the ground, a leash or tether attached to such head cannot become entangled. It is pointed out that, since the bearings of the moving parts are so enclosed as to prevent entrance of dirt or moisture, it is immaterial from this standpoint that the member, when the device is in position of use, is close to the ground.

Although applicant has shown and described only one modification of his invention, it will be apparent that variations thereof may be made and are contemplated insofar as such variations are within the spirit and scope of the invention as set out in the annexed claims.

Having thus set forth my invention, what I claim as new and for which I desire protection by Letters Patent is:

1. A tethering device comprising a post having one end for ground penetration, a cap screw having threaded engagement with the other end of said post, a rotatable member, a bearing enclosed in said member, a sleeve in said bearing for receiving said screw, means carried by said screw adapted to axially space said member from said post end, and means on the head of said screw cooperating with said sleeve and said first means to provide a continuing support between the cap of said screw and said post whereby to prevent damage to said bearing during the operation of mounting said device preparatory to use.

2. A tethering device comprising a post having one end for ground penetration and having a longitudinally extending threaded opening at the other end, a plate on said other end, a sleeve on said plate, a rotatable member carried by said sleeve, said plate and sleeve having openings therethrough concentric with the opening in said post, and a cap screw projecting through the openings of said plate and sleeve into said post opening whereby to effect abutting assembly of the device.

3. A tethering device comprising a post having one end for ground penetration, and a longitudinally extending threaded opening at the other end thereof, a cap screw, sleeve-like means enclosing a portion of the length of said screw, said screw projecting into the threaded opening sufficiently to cause said sleeve-like means to abut said post end and the cap of said screw to provide a continuing support therebetween, and a rotatable member mounted on a portion of said sleeve-like means adjacent the cap of said screw.

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