July 22, 1941. H. A. WILKINS 2,250,171

ADJUSTABLE DOG LEASH

Filed Aug. 26, 1940

Fig. 1

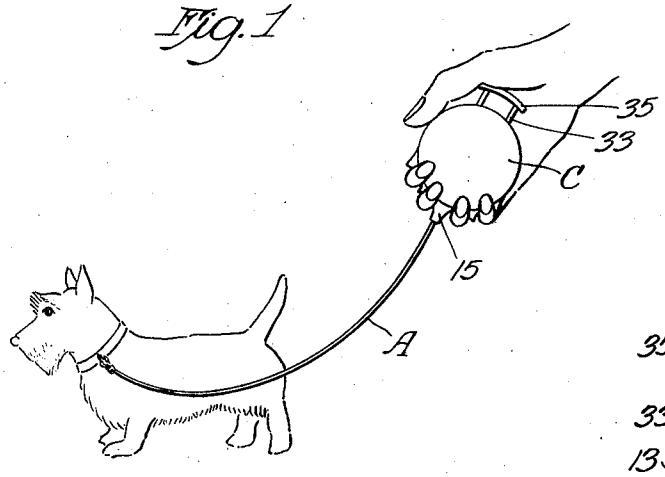


Fig. 2

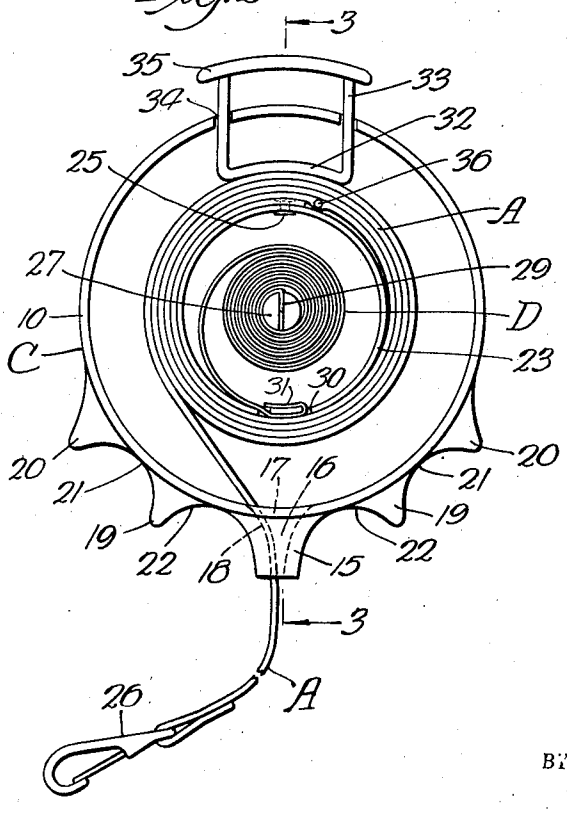
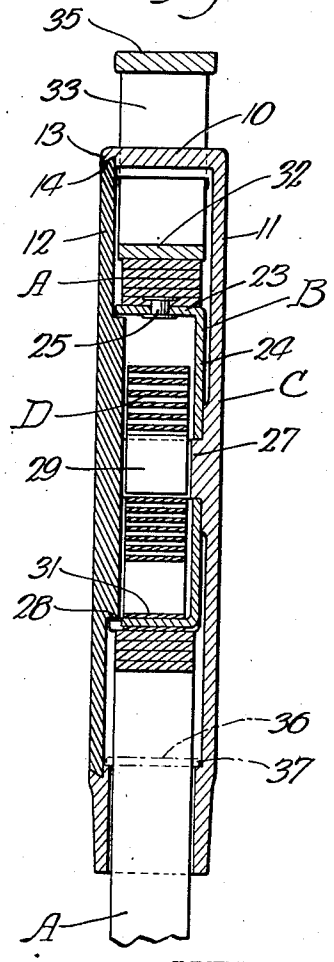


Fig. 3



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ADJUSTABLE DOG LEASH

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5 Claims. (Cl. 242—98)

This invention relates to dog leashes and has for its principal object to provide a leash on a reel that will fit in the hand of the user and give complete control of the leash in running out, taking in, and holding it at a selected length.

Generally speaking, this is accomplished by fastening the leash to a spring reel mounted in a small flat casing adapted to be carried in the partly closed hand with a hollow nipple for the leash between the middle finger and the ring finger, and a control brake handle against the base of the thumb. With such an arrangement the device fits within the hand in the natural position for casual carrying at ease, or for gripping to check or hold the dog. The grasp is natural and easy and the brake can be applied quickly and lightly, or quickly with all the power of the user's hand.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which

Fig. 1 is a diagrammatical sketch illustrating the use of the device with a dog;

Fig. 2 is a side view with part of the casing broken away to reveal the interior; and

Fig. 3 is a transverse section taken on the line 3—3 of Fig. 2.

But this particular drawing and the corresponding description are used for the purpose of disclosure only and are not intended to impose unnecessary limitations on the claims.

The leash generally indicated at A is shown wound on a reel, generally indicated at B, rotatably mounted within a casing C, and normally urged by a spring D to a position to wind up or retract the leash A.

The case is shown as generally round or cylindrical with flat sides or heads and comprises an outer cylindrical wall 10 and side walls or heads 11 and 12, the latter being separate from the wall 10 but secured to it by turning over the flange 13 against the beveled edge 14.

On one portion of the periphery, shown here at the bottom and what may be called the front side, there is a hollow nipple 15, having an opening 16, generally flat in cross section and flared inwardly at 17, to provide the round, smooth surface 18 for contact with the leash A. At each side of the nipple 15 there are projections 19 and 20 separated from each other and from the nipple 15 by curved walls 21 and 22, which form finger seats curved in both directions to naturally fit within the grasp of the fingers bent to a partly closed position.

The reel B includes a rim 23 and a web 24, here shown as in one piece. The inner end of the leash is made fast to the rim 23 by a stout rivet 25 and the outer end is run through the nipple 15 and fitted with a snap hook 26.

The wall 11 of the casing is provided at the center with an integral stud 27 which forms a bearing for the web 24 of the reel and about which the reel rotates.

The other wall 12 is provided with a shoulder 28, which forms a bearing for the inner side of the rim 23 opposite to the web 24, and about which it rotates.

The stud 27 is split to receive the bent inner end 29 of the helical spring D, the outer end of which is inserted in slots 30 in the rim 23, and bent back, as indicated at 31.

A curved brake shoe 32 is located within the casing against the outer portion of the coiled leash A. It is connected by arms 33 extending through openings 34 in the casing, to a handle or pad 35 curved to fit the base of the thumb, or inner palm of the hand.

In use the snap hook 26 is fastened to the dog's collar and the casing taken in the hand somewhat in the fashion indicated in Fig. 1. As the dog runs the leash will be paid out, winding the reel against the resistance of the spring, unless and until the operator desires to check the dog, or limit his movements, when the brake 32 is applied to the outer turn of the coiled leash with suitable pressure. When the pull on the leash is released the return may be prevented by continuing appropriate braking pressure or the leash may be retracted by releasing the pressure, whereupon the spring D will wind the reel in the opposite direction and retract the leash to a suitable length.

The leash is shown broken away in Fig. 3, and the brake and the spring in positions they assume when more or less of the leash is withdrawn from the casing.

It will be clear from the illustration that the casing fits naturally into the user's hand in the position for carrying it casually with the arm hanging to the side. The same position makes it easy to apply braking pressure and to grasp firmly the casing to make sure that the dog does not jerk it away from the user's hand. The grasping action naturally makes a firm grip on the casing while applying appropriate braking pressure with the base of the thumb or the inner palm of the hand.

The size, of course, will vary, but for a ten to twelve foot leash a casing roughly 2¼" in diameter and ½" thick will be found suitable.

The leash is preferably, as shown, a flat strap, and can be conveniently made of braided material, woven material, leather and molded compositions. Some will prefer to have a positive stop at the inner end of the leash, and this can be accomplished by fastening a pin **36** in position to have its ends **37** catch just inside the nipple **15** when the leash is all run out.

The reel and the casing may be made of a variety of materials but for lightness plastics are preferred. A Bakelite or Micarta casing with a sheet metal reel would have the advantage that there would be little friction and a minimum amount of lubrication would be required.

The arrangement is also very suitable for engineers' tapes, etc.

I claim:

1. In a device of the class described, a reel, a leash wound on the reel, a casing in which the reel is rotatably mounted, a hollow nipple on the casing forming a passage for the leash, projections at each side of the nipple forming with it separate seats for the fingers, the casing being small enough to be grasped in one hand with the nipple between adjacent fingers.

2. In a device of the class described, a spring reel, a leash wound on the reel, a generally round, flat-sided casing surrounding the reel and leash having a hollow nipple projecting outwardly from the periphery of the casing for the leash to run through, a brake for the leash comprising a shoe movable inwardly to applied position and a radially movable brake handle outside the casing and substantially diametrically opposite the nipple, the casing being of such shape and size that it can be held in one hand with the handle within and against a portion of said hand and be squeezed thereby to apply the brake.

3. In a device of the class described, a spring reel, a leash wound on the reel, a generally round, flat-sided casing surrounding the reel and leash having a hollow nipple projecting outwardly from the periphery of the casing for the leash to run through, projections at each side of the nipple forming with it separate seats for the fingers, a brake for the leash and a radially movable brake handle outside the casing and substantially diametrically opposite the nipple, the casing being of such size and shape that it can be held in one hand with the handle within and against a portion of said hand and be squeezed thereby to apply the brake.

4. In a device of the class described, a spring reel, a leash wound on the reel, a generally round, flat-sided casing surrounding the reel and leash having a hollow nipple projecting outwardly from the periphery of the casing for the leash to run through, and brake means comprising a shoe movable into engagement with the outer winding of the leash, arms extending from the shoe through openings in the casing substantially diametrically opposite the nipple, and a handle connecting the arms outside the casing, the casing being of such size and shape that it can be held in one hand with the handle within and against a portion of said hand and be squeezed thereby to apply the brake.

5. In a device of the class described, a spring reel, a leash wound on the reel, a generally round, flat-sided casing surrounding the reel and leash and having an opening in its periphery for the leash to run through, a brake for the leash with a brake handle outside the casing, said handle having a portion substantially diametrically opposite the opening and movable radially inwardly to apply said brake, said portion extending circumferentially of the reel and being of a length to subtend an appreciable angle at the center thereof, the casing being of such size and shape that it can be held in one hand with the opening between two of the fingers, the said handle portion being adapted to fit within the hand when the casing is so held and to be squeezed toward said casing by closing movement of said hand to apply the brake.

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