Aug. 13, 1935. W. LORENZ 2,011,521

GARDEN HOSE LOOP HOLDER

Filed Sept. 6, 1934

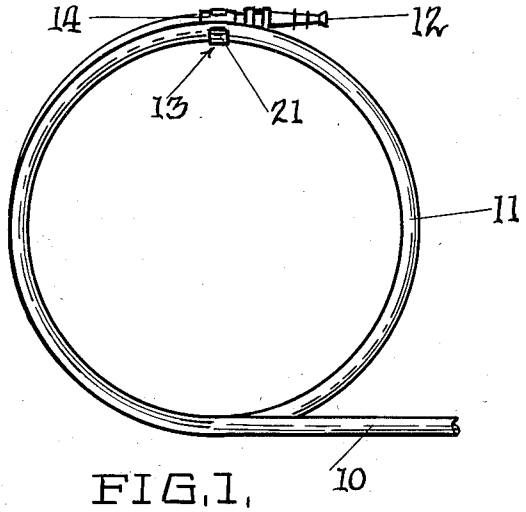


FIG. 1.

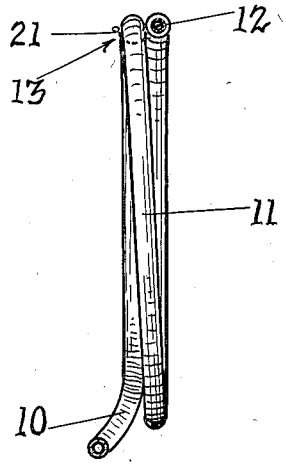


FIG. 2.

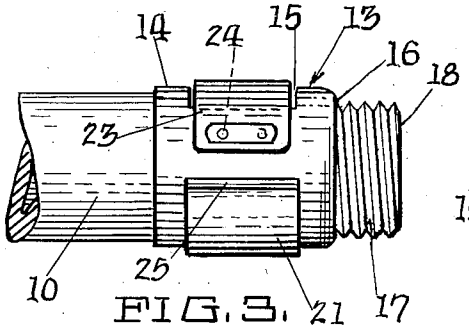


FIG. 3.

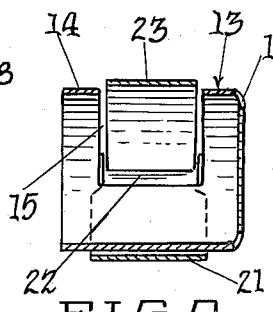


FIG. 4.

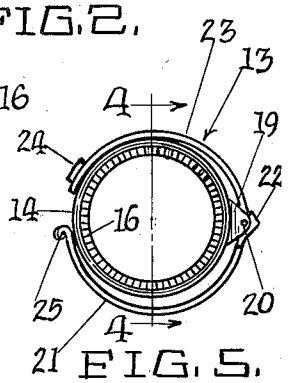


FIG. 5.

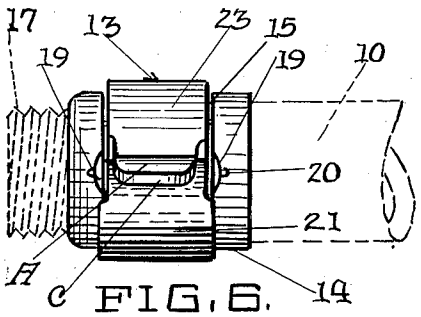


FIG. 6.

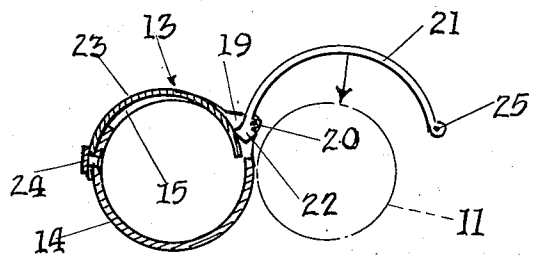


FIG. 7.

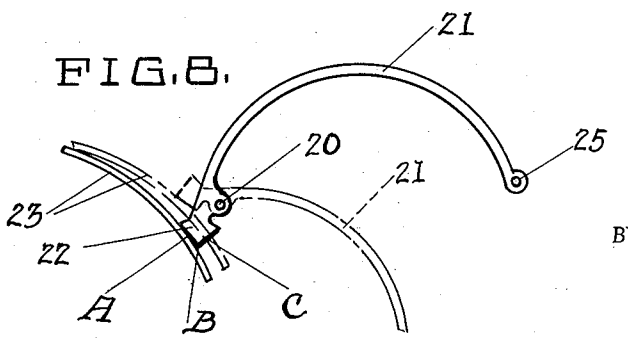


FIG. 8.

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GARDEN HOSE LOOP HOLDER

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7 Claims. (Cl. 24—73)

This invention relates to a holder for garden hose and the like, and has particular reference to a clamp or holder for retaining and forming the first loop in the hose while rolling the same into successive loops or while unrolling the rolled hose.

In rolling garden hose it is the customary practice to pick up the nozzle end of the hose and hold the same with the hands while the first loop and each successive turn or loop is formed. This operation is very unsatisfactory and oftentimes results in the hose being abandoned in a tangled mass with some water still remaining in the folds thereof which is most injurious to the rubber and often causes the same to swell and rot.

I am aware of the fact that various forms of reels for this purpose are available but these at best are cumbersome, expensive and unsatisfactory for the purpose in many respects in that it is a slow and tedious operation to reel and unreel the hose from these appliances and if they are of portable character often require considerable time and attention in their operation and maintenance.

The principal object of the invention is to provide an efficient holder attachment that may be applied to the nozzle end of any hose for the purpose of gripping and retaining the first loop formed in the hose so that successive loops may be quickly and easily rolled into position without the necessity of manually holding said first loop with the hands while rolling the successive loops.

A further object of the invention is that of providing a holder which while extremely simple in design is positive in its gripping action, and therefore, positively holds the first formed loop in position while successive loops are rolled in the hose.

Another object of the invention is the provision of a hose loop retaining holder which is provided with a positive spring controlled gripping element so arranged that the gripping arm will remain in open or inoperative position when cocked at the same time depressing the spring against the hose inside the shell thus locking the holder so that it will remain in the desired position until the first loop has been formed and placed in the gripping arm of the holder, and snap to retaining or gripping position when released from this cocked position to effectually grip the first loop formed in the hose.

A still further object of the invention is to provide a hose loop holder of the class described which consists of but few working parts and one that may be easily applied to the nozzle end of any hose fitting by screwing the same to position on said fitting, which securely holds the same loosely in the groove next to the nozzle threads. This is important as it will permit the loop holder to be turned into the proper position so that the hose can easily be placed in the gripping arm.

Other objects and advantages will be apparent during the course of the following description.

In the accompanying drawing forming a part of this specification and in which like numerals are employed to designate like parts throughout the same,

Fig. 1 represents a side elevation of a partially looped garden hose showing my improved holder in place adjacent the nozzle end and illustrating the proper method of rolling or coiling the hose with the use of my device,

Fig. 2 is an edge view of the coiled hose showing one complete loop and further illustrating the use of my holder in gripping and retaining the looped hose in position,

Fig. 3 is an enlarged side elevation of the holder in place upon the nozzle end of the hose and illustrates the device screwed upon the hose nozzle fitting and ready for use,

Fig. 4 is a sectional view of the same as indicated by the section line 4—4 in Fig. 5 and illustrating the relation between the shell, gripping element and the flat spring for actuating the gripping element,

Fig. 5 is an end view of the holder showing the gripping element in inoperative position and the spring element coacting therewith to retain the same in this position,

Fig. 6 is a side elevation of the device showing the reverse side from that illustrated in Fig. 3 and showing the gripping arm hinge elements also the actuating spring therefor,

Fig. 7 is a transverse section taken through the shell, gripping arm and spring element and showing the gripping arm in cocked or inoperative position, and

Fig. 8 is an enlarged detail of the gripping arm and actuating spring and illustrating the means for holding the gripping arm in cocked or operative positions.

Referring more particularly to the drawing and especially Figures 1 and 2, I have illustrated a garden hose 10 having a portion arranged to provide a loop 11, with the usual nozzle 12 secured to the hose, and the portion is held in looped formation by my holder which is broadly indicated by the reference numeral 13, with the

result it will be seen that successive loops may be easily and quickly produced in the hose, until the full length thereof is coiled.

Referring now to Figures 3 to 8 inclusive, the device consists of a cylindrical shell 14 having a cutout section 15 in a portion of its circumference and having one end contracted and radially slit to form a flange 16 adapted to engage the threads 17 of the nozzle fitting 18 upon which it is screwed until the flange 16 abuts the hose end as shown in Fig. 3, and which holds the device in place upon the hose. Mounted upon one side of the shell are a pair of hinge ears 19 and hingedly mounted between these ears by means of rivets 20 is the gripping arm 21. This arm is of arcuate form and consists of a slightly larger arc than the holder shell 14 and, as shown in Fig. 5, is pivoted slightly eccentric with relation thereto. The gripping arm is provided at its pivoted end with a cam head or element 22 which straddles the slot and is preferably diamond or triangular shape in cross section. In any event this cam element consists of oblique cam faces A and C and a dead-center edge or point B adapted to successively engage the free end of a flat spring 23 which is formed integral with or secured to one side of the shell by rivets 24 and operates in the slot 15 in said shell, said spring being of arcuate form and having its free end extending under the cam head 22 of the gripping arm.

It will be observed that as illustrated in Figure 8, the arm 21 is shown in cocked position, that is, it has been thrown back manually against the spring tension until the dead center point B has been passed and the urge of the spring has been transferred from face C of the head 22 to face A which retains said arm in this position. When it is desired to utilize the gripping arm as a clamp to grip the looped section 11 of the hose, it is manually moved upon its pivot over the dead center point B by means of the handle 25 and released which act causes the spring 23 to snap said arm toward the face C and securely grip the looped hose which lies adjacent to the nozzle end 12; and upon release of this gripped section from the gripping arm the spring urges said arm to the position shown in Figures 3 and 5, or to inoperative position.

It is obvious that the shell 14 may be constructed from spring steel material and that the spring 23 may be punched from the wall of this material thereby lessening the number of parts and number of operations in the assembly of the device.

It is to be understood that the form of my invention herewith shown and described is to be taken as a preferred example of the same and that various changes relative to the material, size, shape and arrangement of parts may be resorted to without departing from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:—

1. In a device of the class described, the combination with a hose, of a shell affixed to one end thereof, a gripping arm pivoted to said shell and adapted to grip an adjacent section of said hose, and spring means carried by said shell and adapted to urge said arm into gripping position.

2. In a device of the class described, the combination with a hose, of a shell affixed to one end thereof, an arcuate gripping arm pivoted to said shell and adapted to grip an adjacent looped section of said hose, said gripping arm having a cam element formed at its pivot end, and spring means carried by the shell and normally engaging said cam element to urge said gripping arm into gripping position.

3. In a device of the class described, adapted for attachment to a hose at its nozzle end, said device comprising a shell screwable upon the nozzle fitting thereof and embodying a gripping arm pivotally mounted on the shell and having a cam head formed at its inner end, and a spring carried by said shell and having its free end engaging said cam head and adapted to urge said gripping arm to operative gripping position.

4. In a hose gripping holder of the class described comprising a slotted shell section adapted to fit over the nozzle fitting of a hose, a gripping arm pivotally mounted on the side of said shell, said arm having a cam head arranged near the pivot point thereof, and a flat spring arranged in the slotted shell and having its free end engaging said cam head to normally urge said gripping arm to operative position.

5. In a hose gripping holder of the class described comprising a slotted shell having a flanged end adapted to engage the threaded nozzle fitting of a hose, said shell having an arcuate gripping arm pivoted to one side thereof and embodying a cam head at its inner pivoted end, and an arcuate flat spring carried by the shell and functioning in said slot with its free end contacting said cam head to normally urge said arm toward said shell.

6. A hose loop holder comprising means for detachable connection with one end of a hose, means pivotally secured to the first mentioned means for movement into and out of operative position and cooperating therewith to hold a portion of the hose in looped formation, spring means on the first mentioned means and engageable with the pivoted means to hold the latter into or out of operative position.

7. A hose loop holder comprising means for detachable connection with one end of a hose, means pivotally secured to the first mentioned means for movement into and out of operative position and cooperating therewith to hold a portion of the hose in looped formation, cam means on the pivoted means, and spring means on the first mentioned means and engageable with the cam means to hold the pivoted means into or out of operative position.

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