Another type of a hose reeler includes a sprinkler head and wheels for facilitating the transportation of the hose.
HOSE REELER WITH SPRINKLER HEAD

FIELD OF THE INVENTION

[0001] The current invention is generally related to a garden hose reeler, and more particularly related to a garden hose reeler with at least one sprinkler head.

BACKGROUND OF THE INVENTION

[0002] Garden hose reelers or winders are generally used to reel a garden hose around a core to store the hose when it is not in use. The garden hose reeler with the retracted hose is usually placed near a water faucet where the hose is connected or stored in a garage or a shed for more permanent storage during the winter time. For a short hose, a hand-held type reeler is sufficient for transporting the garden hose from one place to another. Obviously, the garden hose is more easily carried on a reeler as the weight, volume or length of the hose increases. For this reason, some reelers have wheels to facilitate the transportation of the garden hose. This type of reeler can be classified as cart-type garden hose reelers.

[0003] When the garden hose is used, the hose is removed from the garden hose reeler in order to reach a target area for spraying water. In order spray a certain target area, one way is to attach a hand-held sprayer at the end of the garden hose. The use of the hand-held sprayer is usually for spraying a relatively short period of time. Another way is to attach a sprinkler head at the end of the garden hose. The sprinkler head is placed in or near the target area for spraying the target area for a relatively long period of time. In either case, the sprinkler head or the sprayer must be switched at the end of the hose for a different spraying purpose.

[0004] Furthermore, when the garden hose is retracted on a garden hose reeler with a sprinkler head, the sprinkler head is not conveniently stored unless it is removed from the end of the garden hose. Without the removal, the garden hose generally dangles at the end of the retracted garden hose. On the other hand, the removal of the sprinkler head provides more organized storage of the garden hose, but necessitates the attachment of the sprinkler head to the garden hose for a next use.

[0005] The convenience of the garden hose reeler has earned its popular use among gardeners. However, garden hose reelers remain to be desired for the combined use with a sprayer or a sprinkler head.

SUMMARY OF THE INVENTION

[0006] In order to solve the above and other problems, according to a first aspect of the current invention, a hose reeler, including: a body; a water inlet located on the body for receiving water; a retractable core located on the body for storing a hose around the retractable core; and a sprinkler head located on the body and connected to the water inlet for dispensing the water in a predetermined manner.

[0007] According to a second aspect of the current invention, a hose reeler, including: a housing; a water inlet located on the housing for receiving water; a storage area located in the housing for storing a hose therein; and a sprinkler head located on the housing and connected to the water inlet for dispensing the water in a predetermined manner.

[0008] These and various other advantages and features of novelty which characterize the invention are pointed out with particularity in the claims annexed hereto and forming a part hereof. However, for a better understanding of the invention, its advantages, and the objects obtained by its use, reference should be made to the drawings which form a further part hereof, and to the accompanying descriptive matter, in which there is illustrated and described a preferred embodiment of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. 1 is a top view illustrating a first preferred embodiment of the hose reeler with a sprinkler head according to the current invention.

[0010] FIG. 2 is a side view illustrating the first preferred embodiment of the hose reeler with a sprinkler head according to the current invention.

[0011] FIG. 3 is a prospective view illustrating the first preferred embodiment of the hose reeler with the sprinkler head according to the current invention.

[0012] FIG. 4 is a top view illustrating the first preferred embodiment of the hose reeler with the sprinkler head according to the current invention.

[0013] FIG. 5 is a side view illustrating the first preferred embodiment of the hose reeler with the sprinkler head according to the current invention.

[0014] FIG. 6 is a top view illustrating a second preferred embodiment of the hose reeler with the sprinkler head according to the current invention.

[0015] FIG. 7 is a prospective view illustrating a third preferred embodiment of the hose reeler with a sprinkler head according to the current invention.

[0016] FIG. 8 is a top view illustrating the third preferred embodiment of the hose reeler with a sprinkler head according to the current invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT(S)

[0017] Referring now to the drawings, wherein like reference numerals designate corresponding structures throughout the views, and referring in particular to FIG. 1, a top view illustrates a first preferred embodiment of the hose reeler with a sprinkler head according to the current invention. The hose reeler 1 includes a body or housing 2 on which a core 3 is formed for mounting the hose reeler 1 on a wall for storage. The body 2 also includes a handle 4 for hand carrying the hose reeler 1. A sprinkler head 8a is placed on top of the body 2, and the sprinkler head 8A has a disk shape or a circular dial. Along or near the edge of the circular sprinkler head 8A, a set of predetermined sprinkler outlet patterns 8i through 8v is provided, and each of the sprinkler outlet patterns 8i through 8v dispenses water in a certain predetermined manner. Only one of the sprinkler outlet patterns 8i through 8v is selected at any given time, and the water is dispensed through the selected one of the sprinkler outlet patterns 8i through 8v. One of the sprinkler outlet patterns 8i through 8v is selected by placing a desired one pattern to a designated position such as by a water inlet 10A. Accordingly, the illustrated example in FIG. 1 shows that the sprier outlet pattern 8i thus has been selected.

[0018] Now referring in particular to FIG. 2, a side view illustrates the first preferred embodiment of the hose reeler...
with a sprinkler head according to the current invention. The body 2 approximately extends from a first hose guide 6A to a second hose guide 6B or the water inlet 10A. The body 2 also provides the handle 4 on its top. A water guiding the hose reeler 1. Near the water inlet 10A, the body 2 provides a top surface area where the sprinkler head 8A is located. The water inlet 10A is internally connected to the sprinkler head 8A through a water duct in the body 2 so that the water coming in to the hose reeler 1 via the water inlet 10A reaches the sprinkler head 8A via a water duct 10B as indicated by the dotted lines. The water duct 10B is provided to supply incoming water to only a predetermined portion of the sprinkler head 8A, and the water does not reach any other portions of the sprinkler head 8A with respect to the water duct 10B. As described above with respect to FIG. 1, the sprinkler head 8A is rotatable for selecting one of the sprinkler outlet patterns 8i through 8v:

[0019] Still referring to FIG. 2, the above described first preferred embodiment is designed to be portable and hand-held by the handle 4. Although the size and weight of the hose to be stored in the hose reeler 1 determines the extent of portability, the hose to be used with the preferred embodiment is a garden hose of various types and made. A particularly suitable garden hose is a collapsible or flexible garden hose that is compactly stored between the first hose guide 6A and the second hose guide 6B around the retractable core 12 in a coiled manner. The retracted hose is ultimately stored in a space around the retractable core 12 that is also formed by the body 2, the first hose guide 6A, the second hose guide 6B and a stabilizer or a bottom wall 14. In addition to the above hose storing function, the stabilizer 14 will be further described for a stabilizing function to stabilize the hose reeler when the sprinkler dispenses water. The stabilizer 14 also further includes a first nail 16 and a second nail or a rotation handle 18 for improving the contact with the ground where the hose reeler is placed. While the water is dispensed through the sprinkler head 8A, the first and second nails 16 and 18 substantially help prevent the hose reeler from sliding or moving on the ground by increasing the contact. The rotation handle 18 is used to rotate the bottom wall 14 around a center of the retractable core 12 with respect to the body 2.

[0020] Now referring to FIG. 3, a perspective view illustrates the first preferred embodiment of the hose reeler 1 with the sprinkler head 8A according to the current invention. The hose reeler 1 now stores a collapsible hose 20 in a predetermined position between the first hose guide 6A and the second hose guide 6B as well as between the body 2 and the stabilizer 14. To store the hose, a user holds the hose reeler 1 with one hand by the handle 4 while he rotates the bottom wall 14 by the rotation handle 18 with the other hand as shown in FIG. 2. As the hose is reeled in the hose reeler 1, the hose is squeezed to remove excess water in the hose via a groove that is located near the second hose guide 6B. Although the collapsible hose 20 is used in this example, the hose is not necessarily limited to be collapsible in order to practice the current invention. In the above described hose stored configuration, the hose reeler 1 is easily transported by the handle 4 from one place to another. The hose reeler 1 with the retracted hose 20 is also easily stored in a compact space or placed on a hook via the wall mounting bore 3.

[0021] FIG. 4 is a top view of the first preferred embodiment of the hose reeler 1 with the sprinkler head 8A according to the current invention. The hose reeler 1 is now ready to dispense water. The hose 20 is pulled out from the storage area that is formed between the body 2 and the stabilizer 14. One end of the hose 20 is connected to the water inlet 10A while the other end of the hose 20 is connected to a water supply source such as a water faucet that is not shown in this figure. In addition, the stabilizer 14 is rotated to a predetermined position that is perpendicular with the body 2, and the stabilizer 14 is locked in an X position or the perpendicular position. The locked X position increases the stability of the hose reeler 1 as a sprinkler base while water is dispensed through the sprinkler head 8A. As described before, one of the predetermined water dispensing outlets is selected by rotating a desired one on the sprinkler head 8A to the water inlet 10A. The hose reeler 1 functioning as a sprinkler is now easily carried from one place to another by holding by the handle 4.

[0022] Now referring to FIG. 5, a side view illustrates the first preferred embodiment of the hose reeler 1 with the sprinkler head 8A according to the current invention. The stabilizer 14 is in the above described X position, and the first nail 16 and the handle 18 are shown to extend below the stabilizer 14. The first hose guide 6A, the second hose guide 6B, the first nail 16 and the handle 18 rest on the ground to provide contact. A particular one of the water outlet patterns is selected on the sprinkler head 8A, and the water in the hose 20 reaches the water outlet through the water inlet 10A and the water duct 10B. The hose reeler 1 is portable by the handle 4 on the body 2 while it is dispensing the water. Alternatively, the hose reeler 1 is also held as a hand-held sprayer when a certain suitable water outlet is selected on the sprinkler head 8A. For example, the suitable water outlet includes a mist water dispensing pattern and a straight dispensing pattern for watering a relatively concentrated target area.

[0023] FIG. 6 is a top view that illustrates a second preferred embodiment of the hose reeler with the sprinkler head according to the current invention. The hose reeler 30 is now ready to dispense water. The hose 20 is pulled out from the storage area that is formed in the body 2. One end of the hose 20 is connected to the water inlet 10A while the other end of the hose 20 is connected to a water faucet that is not shown in this figure. The second preferred embodiment includes a rotary sprinkler head 8B instead of the disk-type sprinkler head 8A as shown in FIGS. 1 through 5. The rotary sprinkler head 8B is located above the body 2 and rotates around a central rotation axis 8C due to the propelling force that is generated as the water is dispensed from water dispensing outlets 24 on the sprinkler head 8B. The water is dispensed in the direction as indicated by double dotted lines near the water dispensing outlet 24, and the sprinkler head 8B rotates in the counter-clockwise rotational direction as indicated by a dotted arrow.

[0024] Referring to FIG. 7, a perspective view illustrates a third preferred embodiment of the hose reeler with a sprinkler head according to the current invention. The hose reeler 40 includes a spool 43 for spooling a hose 20, a handle 42 to rotate the spool 43, a sprinkler head 44 for dispensing water from the hose 20 and a set of wheels 46. The spool 43 is located on a carriage base, and the hose 20 is spooled on the spool 43 as the spool 43 is rotated by the handle 42. The carriage base includes the four wheels 46 for transporting a spooled portion of the hose 20. One end of the hose 20 is connected to a water supply such as a faucet that is not shown in the drawing. The other end the hose 20 is internally connected to the sprinkler head 44.
Referring to FIG. 8, a top view illustrates the third preferred embodiment of the hose reeler 40 with the sprinkler head 44 according to the current invention. When the water source exerts pressure in the hose 20, the water travels from the hose 20 to the sprinkler head 44 via an internal duct in the spool 43. As the water is sprinkled as indicated in double dotted lines, the force rotates the sprinkler head 43 in a clockwise direction. Although the sprinkler head 44 rotates in the third preferred embodiment, an alternative embodiment with the wheels 46 includes a disk-shaped sprinkler head 8A as shown in FIG. 3.

It is to be understood, however, that even though numerous characteristics and advantages of the present invention have been set forth in the foregoing description, together with details of the structure and function of the invention, the disclosure is illustrative only, and that although changes may be made in detail, especially in matters of shape, size and arrangement of parts, as well as implementation in software, hardware, or a combination of both, the changes are within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which the appended claims are expressed.

What is claimed is:

1. A hose reeler, comprising:
   a body;
   a water inlet located on said body for receiving water;
   a retractable core located on said body for storing a hose around said retractable core; and
   a sprinkler head located on said body connected to said water inlet for dispensing the water in a predetermined manner.
2. The hose reeler according to claim 1 wherein said body further comprises a handle for transporting the hose reeler.
3. The hose reeler according to claim 1 wherein said body further comprises a wall mount mechanism for placing the hose reeler on a wall for storage.
4. The hose reeler according to claim 1 wherein the hose is a collapsible flat hose.
5. The hose reeler according to claim 1 wherein the hose is a circular non-collapsible hose.
6. The hose reeler according to claim 1 wherein said sprinkler head has a plurality of predetermined sprinkler outlet patterns.
7. The hose reeler according to claim 6 wherein said sprinkler head has approximately a disk shape and includes said sprinkler outlet patterns near along its disk periphery, said sprinkler head being rotary around a center of the disk shape for selecting a desired one of said sprinkler outlet patterns.
8. The hose reeler according to claim 1 further comprising a stabilizer located on the body and adjustable movably with respect to said body for stabilizing the hose reeler when said sprinkler head is dispensing the water.
9. The hose reeler according to claim 8 wherein said stabilizer further comprising a set of nails for further stabilizing the hose reeler on ground.
10. The hose reeler according to claim 8 wherein said stabilizer and said body together maintain the hose around said retractable core.

11. The hose reeler according to claim 1 wherein said water inlet is directly and detachably connected to the hose.
12. The hose reeler according to claim 1 wherein said sprinkler head rotates while said sprinkler head is dispensing the water.
13. The hose reeler according to claim 1 wherein the hose reeler is hand held.
14. The hose reeler according to claim 1 further comprising a pair of wheels located on the body for facilitating transportation of the hose.
15. A hose reeler, comprising:
   a housing;
   a water inlet located on said housing for receiving water;
   a storage area located in said housing for storing a hose therein; and
   a sprinkler head located on said housing and connected to said water inlet for dispensing the water in a predetermined manner.
16. The hose reeler according to claim 15 wherein said storage area further comprises a retractable core for storing the hose around said retractable core when the hose is not in use.
17. The hose reeler according to claim 16 wherein said body further comprises a handle for rotating said retractable core.
18. The hose reeler according to claim 15 wherein the hose is a collapsible flat hose.
19. The hose reeler according to claim 15 wherein the hose is a circular non-collapsible hose.
20. The hose reeler according to claim 15 wherein said sprinkler head has a plurality of predetermined sprinkler outlet patterns.
21. The hose reeler according to claim 20 wherein said sprinkler head has approximately a disk shape and includes said sprinkler outlet patterns near along its disk periphery, said sprinkler head being rotary around a center of the disk shape for selecting a desired one of said sprinkler outlet patterns.
22. The hose reeler according to claim 15 further comprising a stabilizer located on the housing and adjustably movable with respect to said housing for stabilizing the hose reeler when said sprinkler head is dispensing the water.
23. The hose reeler according to claim 22 wherein said stabilizer further comprising a set of nails for further stabilizing the hose reeler on ground.
24. The hose reeler according to claim 23 wherein said stabilizer and said housing together maintain the hose around said retractable core.
25. The hose reeler according to claim 15 wherein said water inlet is directly and detachably connected to the hose.
26. The hose reeler according to claim 15 wherein said sprinkler head rotates while said sprinkler head is dispensing the water.
27. The hose reeler according to claim 15 wherein the hose reeler is hand held.
28. The hose reeler according to claim 15 further comprising a pair of wheels located on the housing for facilitating transportation of the hose.

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