

No. 848,239.

PATENTED MAR. 26, 1907.

L. A. GRIMSRUD.
HOSE REEL.

APPLICATION FILED JULY 26, 1906.

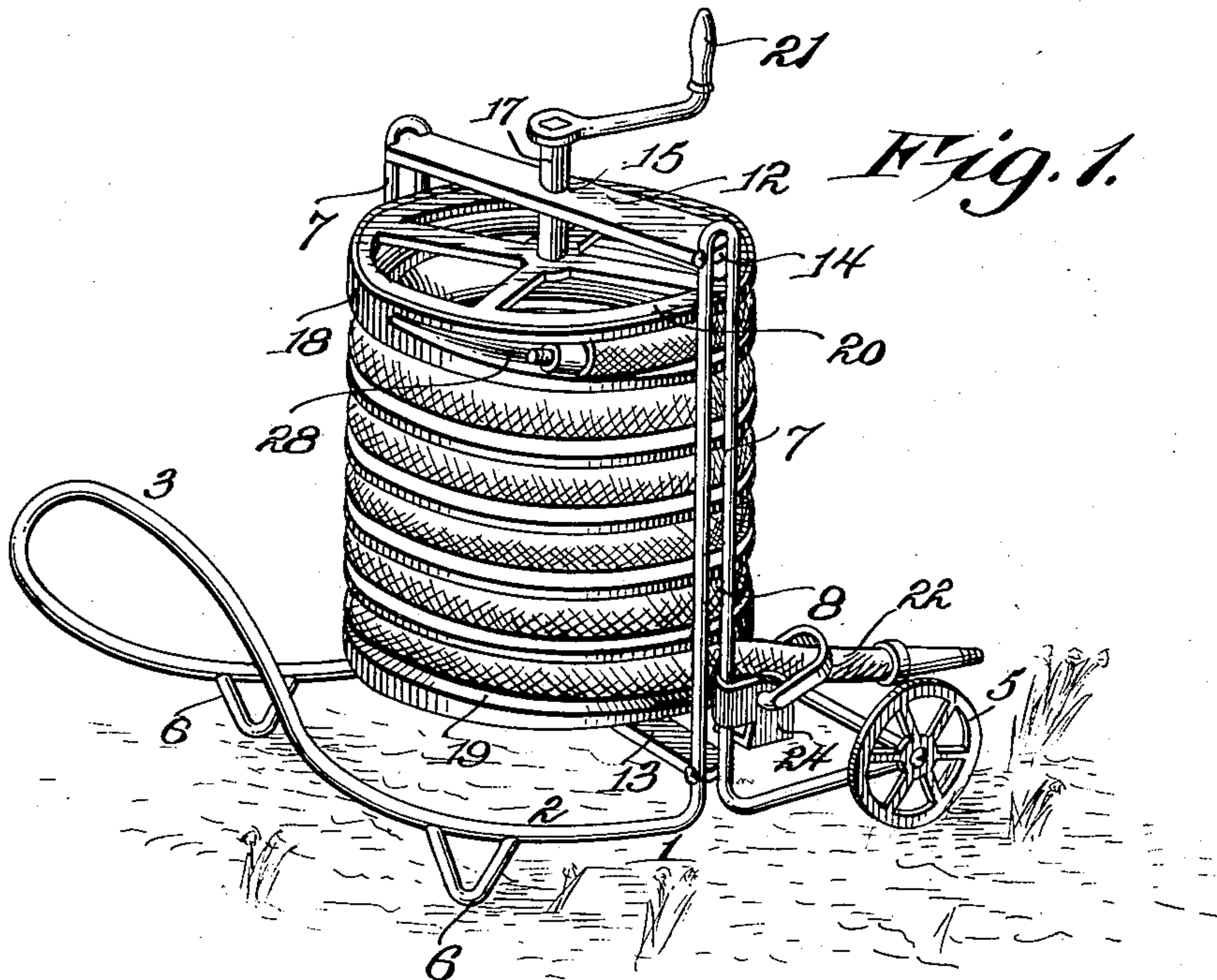


Fig. 1.

Fig. 2.

Fig. 3.

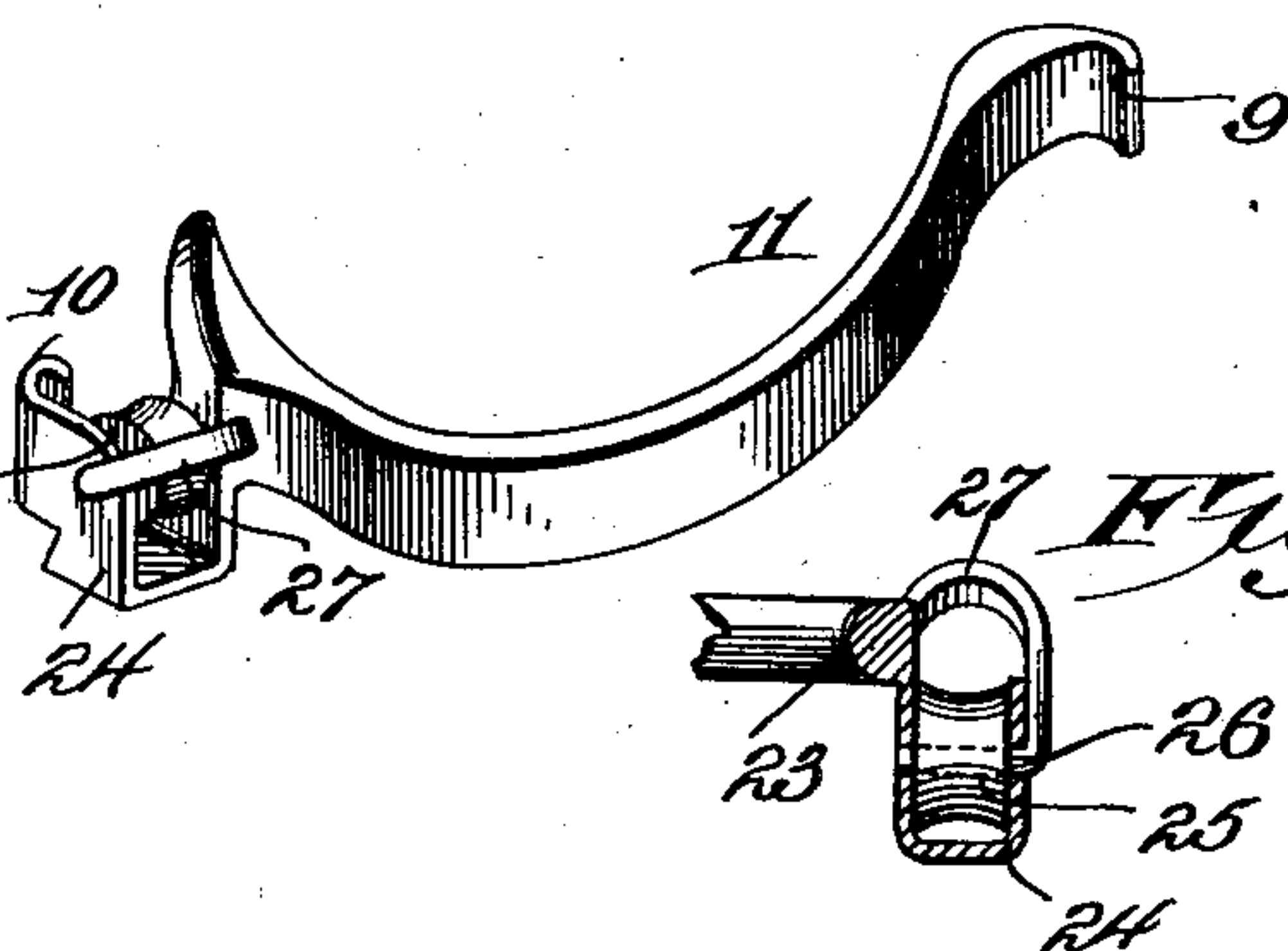
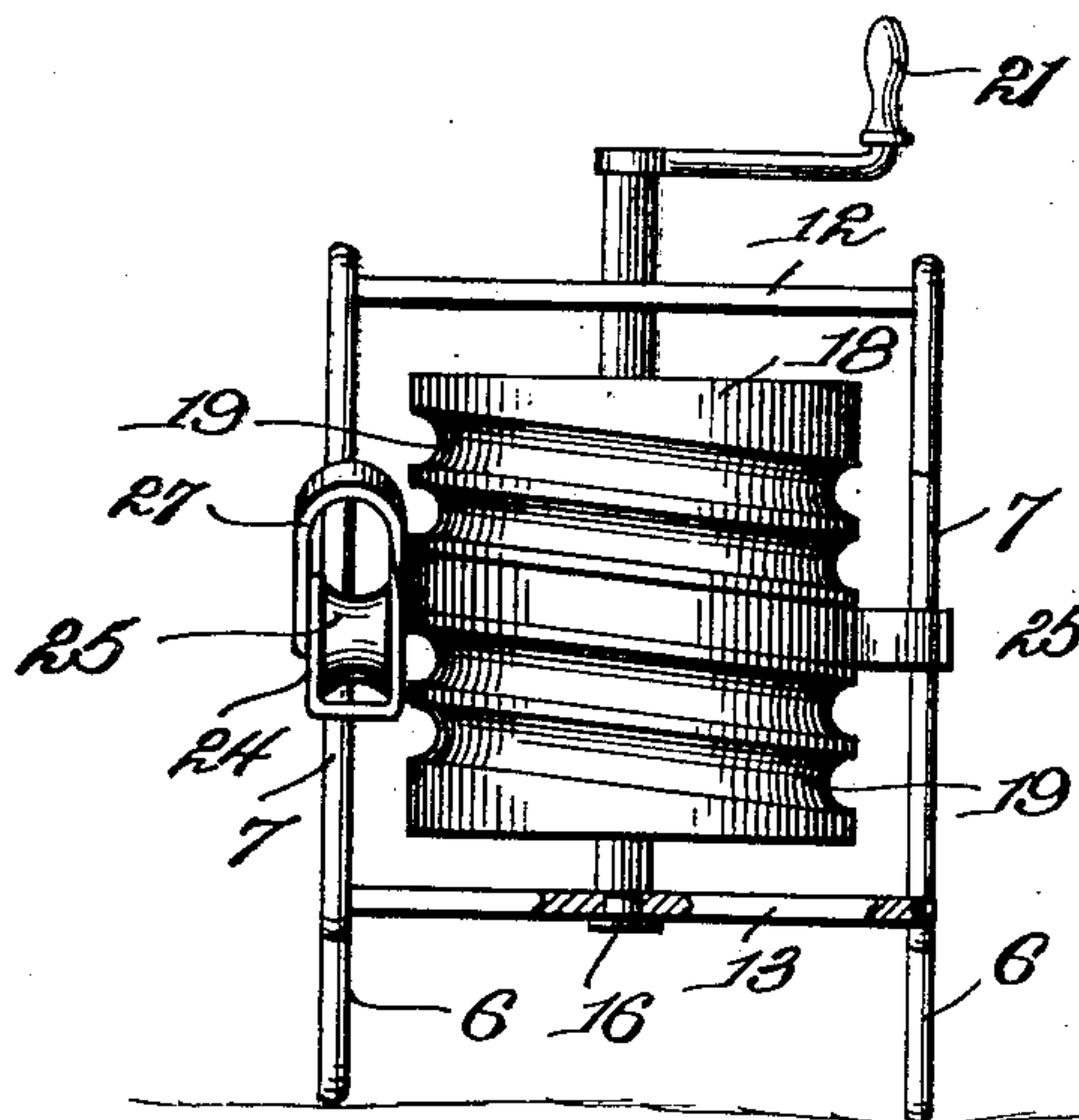


Fig. 4.

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LUCAS A. GRIMSRUD, OF SPOKANE, WASHINGTON.

HOSE-REEL.

No. 848,239.

Specification of Letters Patent.

Patented March 26, 1907.

Application filed July 26, 1906. Serial No. 327,926.

To all whom it may concern:

Be it known that I, LUCAS A. GRIMSRUD, a citizen of the United States, residing at Spokane, in the county of Spokane and State of Washington, have invented a new and useful Hose-Reel, of which the following is a specification.

The invention relates to improvements in reels for garden-hose.

The object of the present invention is to improve the construction of reels for garden-hose and to provide a simple and comparatively inexpensive one adapted to permit garden-hose to be easily and quickly handled and capable of effectually preventing the same from kinking and of enabling a hose to drain rapidly after being wound on the reel.

With these and other objects in view the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended, it being understood that various changes in the form, proportion, size, and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing, Figure 1 is a perspective view of a garden-hose reel constructed in accordance with this invention. Fig. 2 is a rear elevation of the same partially in section. Fig. 3 is a detail perspective view of the vertically-movable guide. Fig. 4 is a detail sectional view of the same, illustrating the manner of mounting the grooved roller.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

1 designates the frame of the reel, which is designed for holding garden-hose and which may be constructed of any size to accommodate a hose of the desired length. The frame, which may be constructed of any suitable material, is preferably made of tubular metal, and it is composed of opposite sides 2 and a connecting front portion 3, which is substantially inverted-U-shaped and which is extended upwardly to form a handle. The rear ends of the sides are connected by an axle, which is provided at its ends with wheels 5, and the front portions of the sides are provided with depending feet 6, which are substantially V-shaped and which support the frame in a horizontal position. The

frame is provided at opposite sides with vertical standards 7, forming fixed guides and composed of spaced parallel sections having an intervening opening 8 for the reception of the terminal portions 9 and 10 of a vertically-movable hose-guide 11. The upwardly-extending standards are connected at the top and bottom by cross-pieces 12 and 13, constructed of malleable cast metal or other suitable material and having reduced ends 14, which are secured in the openings of the standards by bolts or other suitable means.

The cross-pieces are provided with central aligned bearing-openings 15 and 16, which receive a vertical shaft 17 of a drum 18, constructed of sheet metal or other suitable material and provided with a spiral hose-receiving groove 19. The drum is provided at its top and bottom with heads 20, consisting of a central hub portion which is secured to the vertical shaft, radial spokes, and an outer rim portion which is secured to the drum. The vertical shaft is provided at its upper end with a crank-handle 21 and is adapted to be rotated for winding a hose 22 on the drum. In unreeling it is only necessary to take hold of the nozzle of the hose and draw the latter from the reel.

The vertically-movable hose-guide 11, which is approximately semicircular, is provided with a rounded inner face 23 to conform to the configuration of the spiral hose-receiving groove, which is in the form of a left-hand thread. The guide extends across the space between the vertical standards, and one end is extended laterally and is curved slightly to fit in the guide-opening of the contiguous standard. The other end of the guide, which is inclined to fit the spiral groove of the drum, is provided with a casing 24, composed of inner and outer parallel sides and a connecting bottom portion and having the outer side extended and curved inwardly to form the terminal portion 10, which is hook-shaped, and which extends into the guide-opening of the adjacent side standard. The casing 24 receives a grooved roller 25, on which the hose runs in reeling it on and unreeling it from the drum. The roller is mounted on a spindle 26, which is formed integral with a loop or arched portion 27. The loop or arched portion 27 is inclined upwardly and rearwardly and has its sides arranged at the side portions of the casing 24, and it is adapted to confine the hose on the grooved roller or wheel.

When the spirally-grooved drum is rotated, its hose-receiving groove engages the transversely-disposed portion of the guide and moves the latter upward or downward, according to the direction in which the drum is rotated. The drum is designed to be provided at the upper end of the spiral groove with a clip or other suitable means for securing one end of the hose to the drum, and when the latter is rotated to the right the hose will be wound on the drum and will be automatically guided to the groove by the guide 11, which will move downwardly, being actuated by the spiral groove.

The reel, which is exceedingly simple and inexpensive in construction, is light, strong, and durable and is adapted to enable a hose to be quickly wound on it and unwound from it. It is adapted to prevent the short kinks, which are injurious to hose, and it is capable of permitting the hose when wound on it to drain quickly, as the spiral disposition of the hose forms a continuous incline down which the water is permitted to run freely.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A hose-reel comprising a drum having a spiral groove, and a hose-guide movable along the drum and actuated by the groove, which also receives the hose.

2. A hose-reel comprising a drum having a spiral hose-receiving groove, and means arranged to follow the groove for automatically guiding the hose to the same, said means being actuated by the groove, which receives the hose.

3. A hose-reel comprising a drum having a spiral hose-receiving groove, and a hose-guide provided with means for engaging the groove, whereby it is adapted to follow the same and automatically guide the hose thereto.

4. A hose-reel comprising a drum having a spiral groove, a fixed guide disposed longitudinally of the drum, and a hose-guide movable along the fixed guide and provided with means for engaging the spiral groove, whereby it is adapted to automatically feed a hose to the same.

5. A hose-reel comprising a frame, a vertically-disposed drum mounted on the frame and having a spiral hose-receiving groove, and a vertically-movable hose-guide actuated by the groove of the drum and adapted to automatically guide a hose to the said groove.

6. A reel comprising a frame provided at opposite sides with vertical standards having

guides, a reel mounted between the standards and having a spiral groove, and a hose-guide slidable on the standards and extending across the space between the same and engaging the spiral groove of the reel.

7. A hose-reel comprising a frame provided at opposite sides with guides, a reel mounted between the guides, and a hose-guide slidable on the said guides and provided with a curved portion extending across the frame and arranged at an inclination, said curved portion being engaged by the groove of the drum, whereby the hose-guide is actuated by the same.

8. A reel comprising a frame provided at opposite sides with fixed guides, a drum mounted between the guides and provided with a spiral groove, a hose-guide slidable on the said guides and fitting in the spiral groove of the drum and provided at one side with a casing, a roller mounted in the casing, and means carried by the hose-guide for confining the hose on the roller.

9. A reel comprising a frame provided with vertical guides, a drum mounted between the guides and having a spiral groove, a hose-guide slidable on the said guides and engaging the spiral groove of the drum and provided with a casing, a roller arranged within the casing, and a spindle receiving the roller and provided with an arched extension for confining a hose on the roller.

10. A hose-reel comprising a frame provided at opposite sides with vertical standards, cross-pieces connecting the upper and lower portions of the standards, a vertical shaft journaled in the cross-pieces, a drum mounted on the shaft and having a spiral groove, and means actuated by the groove of the drum for feeding a hose to the same.

11. A hose-reel comprising a frame composed of opposite sides and a connecting upwardly-extending front portion forming a handle, said sides being also provided with spaced upwardly-extending portions forming fixed guides, cross-pieces having their terminals secured in the space between the said upwardly-extending portions, and a drum mounted between the cross-pieces and adapted to receive a hose.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of witnesses.

LUCAS A. GRIMSRUD.

Witnesses:

B. M. BRANFORD,
GEORGE BRYAN,
A. H. GREGG.