No. 672,543. Patented Apr. 23, 1901.

R. D. WIRT.

HOSE REEL.

(Application filed Sept. 24, 1900.)

(No Model.)

Fig. 1.

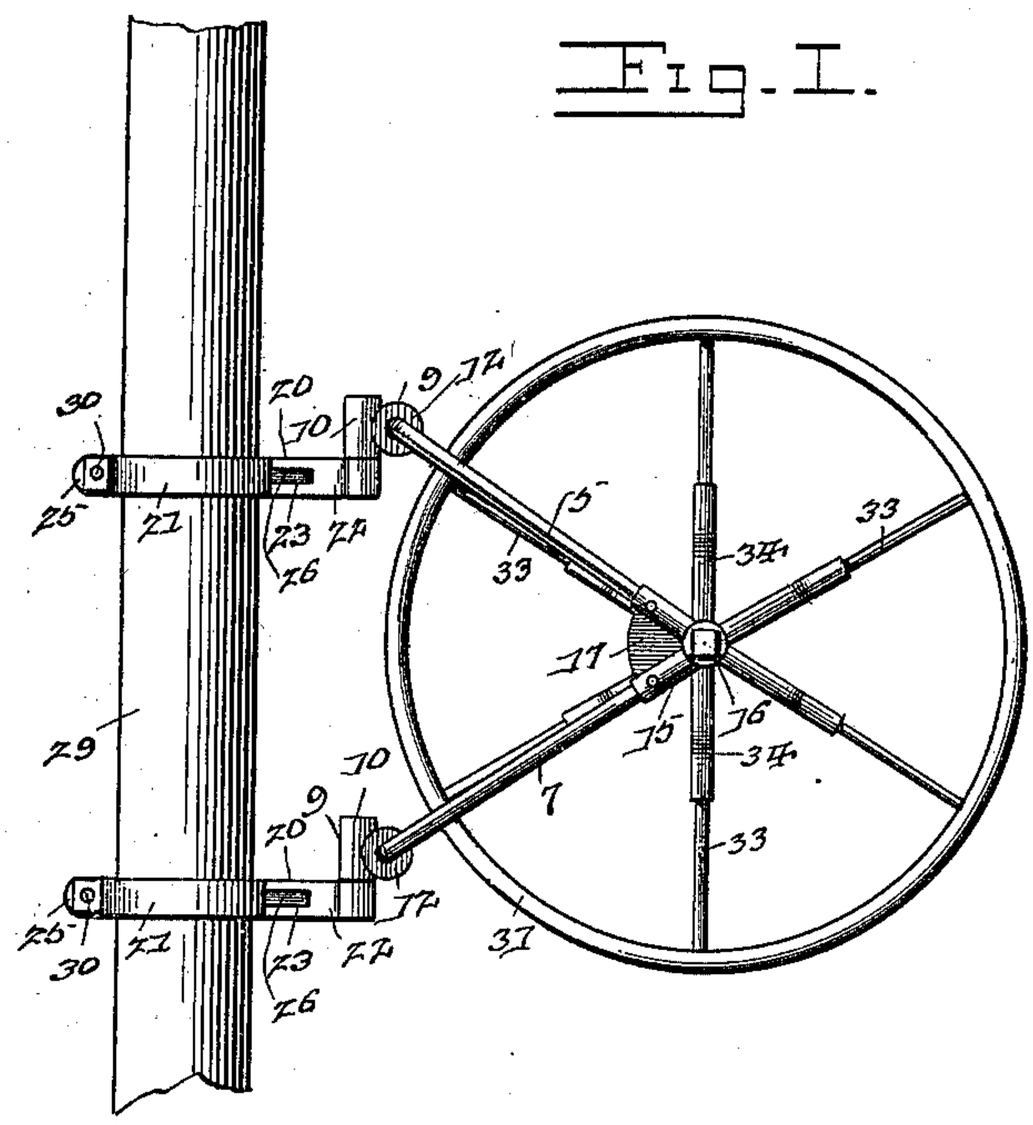


Fig. 3.

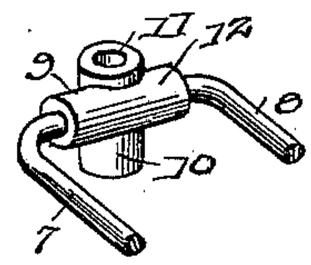


Fig. 2.

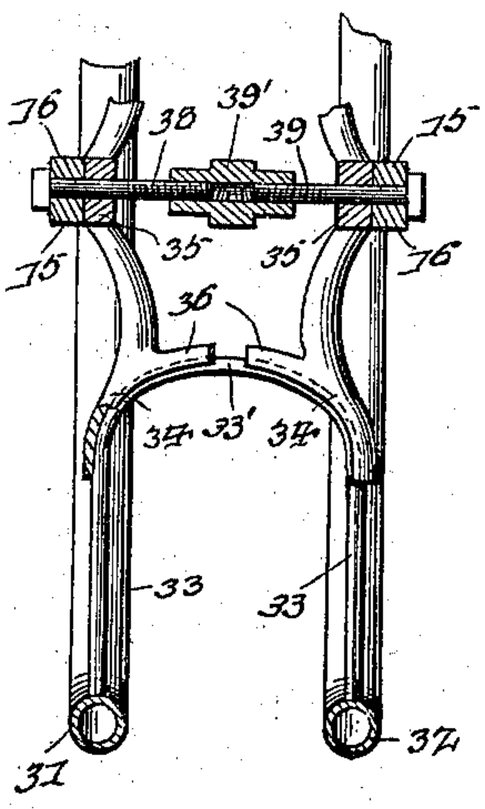


Fig. 4.

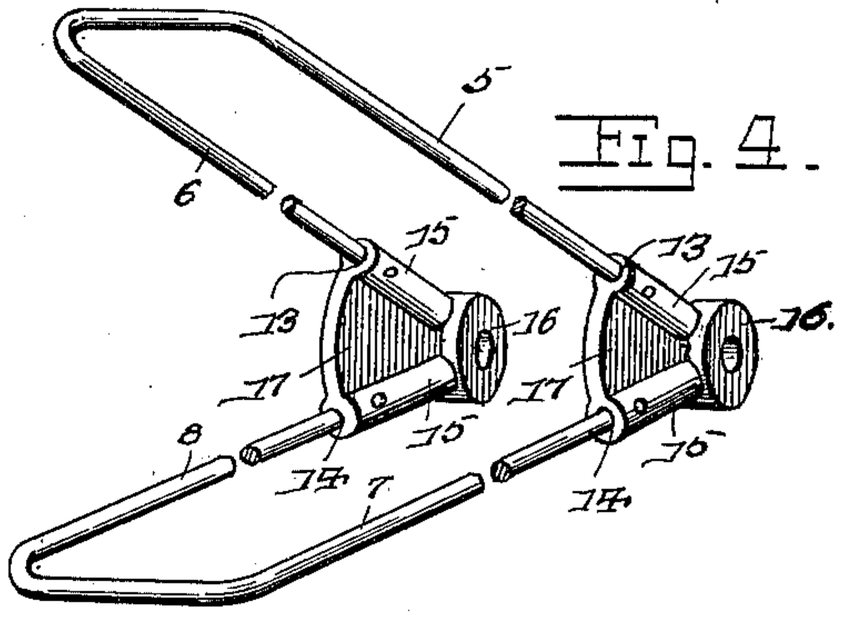
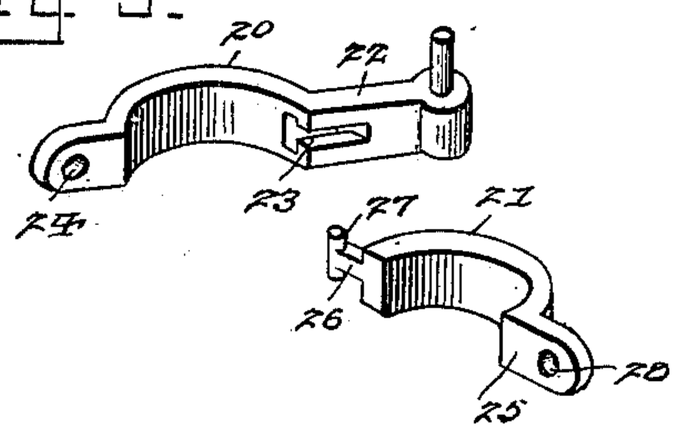


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

REUBEN D. WIRT, OF INDEPENDENCE, MISSOURI.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 672,543, dated April 23, 1901.

Application filed September 24, 1900. Serial No. 30,993. (No model.)

To all whom it may concern:

Be it known that I, REUBEN D. WIRT, a citizen of the United States, residing at Independence, in the county of Jackson and State of Missouri, have invented a new and useful Hose-Reel, of which the following is a specification.

This invention relates to hose-reels in general, and more particularly to that class designed for holding hose in a building at a point convenient to the water-main or stand-pipe, and is in the nature of an improvement upon the structure shown in the patents numbered 432,467, granted on the 15th day of July, 1890, and 486,010, granted November 8, 1892; also, on patent numbered 366,909, granted July 19, 1887.

The object of the invention is to provide a construction that can be manufactured cheaply, that will be light, strong, and durable, and which may be attached to and detached from a stand-pipe or wall and when attached may be swung pivotally to facilitate application and removal of the hose.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of the reel, showing it attached to a stand-pipe. Fig. 2 is a partial section taken diametrically of the winding-wheel and the supporting-frame and showing the adjustable brake mechanism for preventing excessive speed of rotation of the wheel. Fig. 3 is a detail perspective view showing the casting at one end of the supporting-frame. Fig. 4 is a detail perspective view showing the prongs or forked castings at the sides of the frame and in which the axle of the winding-wheel is engaged. Fig. 5 is a perspective view showing the parts of one of the supporting-brackets detached and disassembled.

Referring now to the drawings, the present reel comprises a frame including two pairs of arms 5 and 6 and 7 and 8, the arms of each pair lying parallel and having a connecting-web, and with each web is connected a pivot-block 9. The pivot-blocks consist each of a vertical portion 10, having a central perforation 11, and projecting from the outer face of said vertical portion and lying at right angles to the axis thereof is a second tubular portion 12, the bores of the two portions being entirely independent and separated by the material of which the block is formed. In the formation and engagement of a pair of arms with a pivot-block a bar of iron or other suitable metal is passed through the bore of the portion 12 and at the ends of said tubular portion are bent to lie parallel, this bending of the bar resulting in the formation of the web which connects the arms.

The pairs of arms are connected to lie at an angle to each other by engaging their ends in sockets 13 and 14 of forked castings 15, said socket portions being disposed to radiate from a hub portion 16 and having a strengthening-web 17 connecting them. The ends of the arms are held in the sockets by rivets engaged with alining perforations in the walls of the sockets and the arm ends. There is thus formed a rigid frame for supporting the wheel of the reel.

To support the frame from a stand-pipe, brackets are employed, each of these brackets comprising two arc-shaped sections 20 and 21, the section 20 having a lug at each end in the line of the chord of the arc. The lug 22 has a pintle thereon at its outer end to engage the bore of the vertical portion of a pivot-block of the frame, and at the inner end of said lug is formed a key-slot 23. The lug at the opposite end of the collar-section is perforated, as shown at 24. The second collar-section 21 has lugs 25 and 26 at its opposite ends, the lug 26 having a head 27, which is adapted for slidable and pivotal engagement with the key-slot of lug 22, while the lug 25 has a perforation 28. In practice the headed lug is engaged with the key-slot and the collar-sections are engaged around a stand-pipe 29, after which a clamping-bolt 30 is engaged with the perforations 24 and 28 to draw the collar-sections together and clamp them upon the stand-pipe. Two of these brackets are provided, as shown, and the pivot-blocks when engaged with the pintles thereof permit of lateral swinging of the supporting-frame of the reel-wheel.

The reel-wheel consists of two fellies 31 and 32, which are disposed in axial alinement and have equal radii, each of these fellies being formed from sheet metal bent to cross-sectionally-circular form, as shown in Fig. 2, and

to each of these fellies are connected spokes 33, or rather spoke-sections, each of which is of U shape, the ends thereof being secured to the fellies or rims, while their web portions 33′ are disposed inwardly. The fellies or rims may be stamped from metal, as above mentioned, or, if preferred, may be formed of pipe, as will be understood.

The webs 33′ of the spoke-sections are seated in the sockets 34 in the arc-shaped ends 36 of spiders. Each of these spiders is formed of a malleable casting or is struck from sheet metal, as preferred, and consists of a hub portion 35, having radiating arms 35′, which are oppositely disposed in pairs, and at the ends of these arms are disposed the portions 36, above referred to, the said portions of the mutually opposite arms being in alinement to receive the webs 33′, and in which the webs are firmly held by compressing the edges of the sockets 34.

The hubs 35 of the spiders are bored, as shown, and are disposed between and in axial alinement with the bores of the forks 15, and through these alined openings of the hubs and castings are passed inwardly two bolts 38 and 39, having their cross-sectionally-angular heads resting against the hubs 16 of the castings 15, and the inner ends of which are engaged with a common form of sleeve-coupling 39′, whereby by turning the bolts they may be screwed into the coupling to draw the castings 15 against the hubs of the spiders to establish frictional engagement to prevent free rotation of the winding wheel or drum. Thus as the hose is drawn off the wheel or drum will not rotate at too great a speed and tangling of the hose will be prevented. By the use of the bolts and adjustable sleeve the friction may be adjusted to the proper degree, the angular heads of the bolts permitting engagement of wrenches therewith.

It will be seen that the pivot-castings 12 may be engaged with the pintles of the usual forms of wall-brackets, and it will be understood that any specific style of bracket may be used to secure the best results under different conditions.

With this construction it will be seen that there is provided a simple apparatus which is cheap of manufacture, which may be readily hung upon brackets or disengaged therefrom, and which may be swung from side to side and will be most effective in all of its operations, and it will be understood that various modifications of the specific construction shown may be made and that any suitable materials and proportions may be used for the various parts without departing from the spirit of the invention.

What is claimed is—

1. A hose-reel comprising a frame including pivot-blocks having openings therein at right angles to the pivots, bars passed through said openings and bent to lie with the end portions of each bar parallel, forked castings connecting the corresponding ends of the bars said castings having alining perforations, and a winding-drum disposed between the arms and having an axle engaged with the perforations of the castings.

2. A hose-reel comprising a frame including yieldable side portions adapted for movement toward each other and having alining perforations, a winding-drum disposed between the side pieces and having perforations alined with those of the side pieces, a sectional axle passed through the alining perforations and engaged with the sides of the frame, and an adjusting-collar having threaded engagement with the inner ends of the sections of the axle for drawing them toward each other to frictionally engage the sides of the frame with the ends of the drum.

3. A hose-reel comprising a frame, a winding-drum disposed within the frame, a sectional shaft engaged with the frame and drum and upon which the drum is rotatable, said sections being held against movement through the frame, and means for drawing the sections of the shaft toward each other to vary the frictional contact between the frame and drum.

4. A hose-reel comprising a frame including pivot-blocks arms engaged with the pivot-blocks, the arms of each block being formed integral and lying parallel, forks having sockets with which the ends of the arms at each side of the frame are engaged, a winding-drum rotatably mounted in the frame, and brackets having pintles engaged with the pivot-blocks.

5. In a hose-reel, a winding-drum comprising parallel spaced rims having spoke-sections engaged therewith, a spider for each rim and including each a hub having radiating arms provided with sockets, the spoke-sections being engaged with the sockets in the ends of the arms.

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

REUBEN D. WIRT.

Witnesses:
W. J. O'BRIEN,
C. M. DICKINSON.