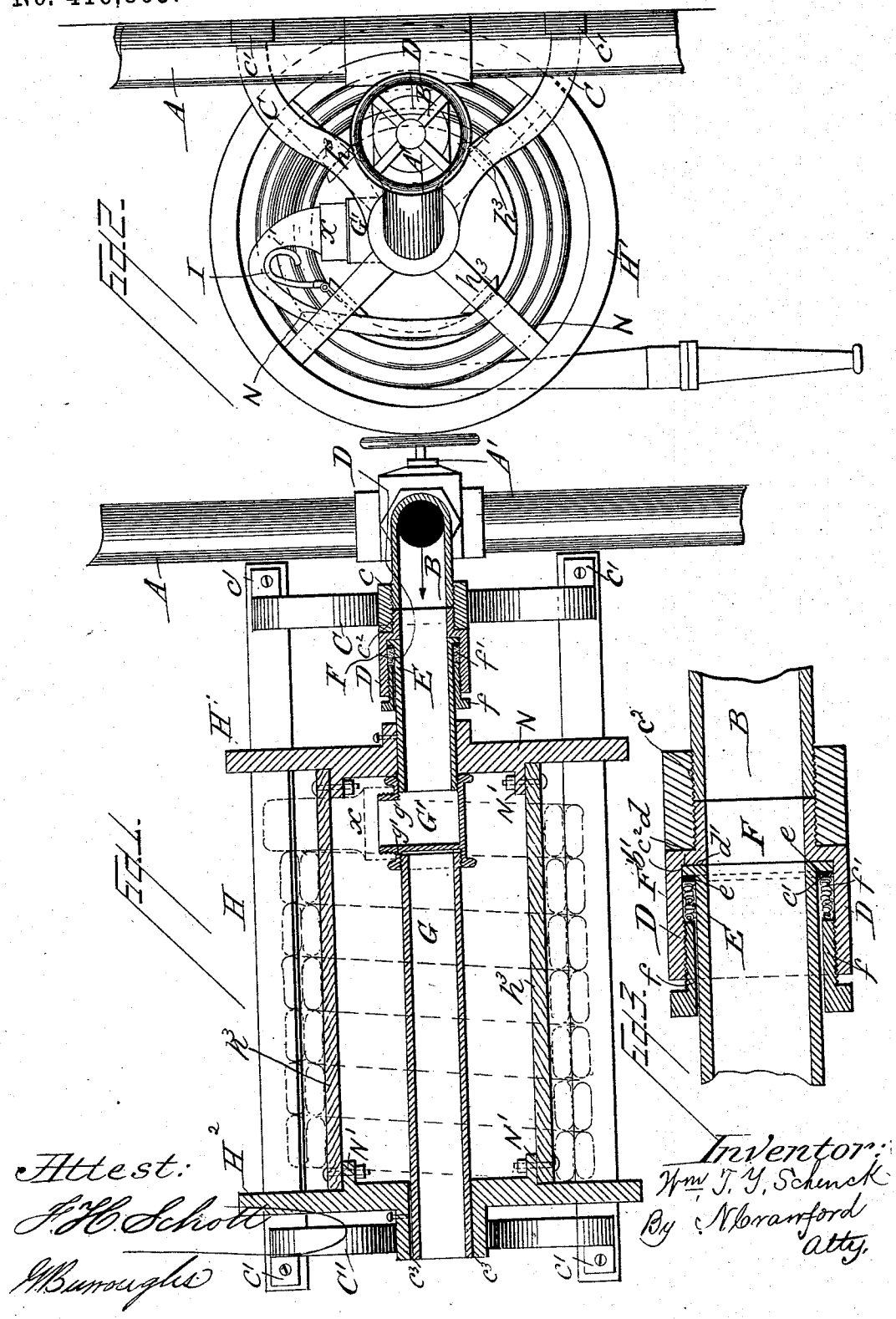
(No Model.) 2 Sheets—Sheet 1.

W. T. Y. SCHENCK.

HOSE REEL.

No. 416,863. Patented Dec. 10, 1889.



Attest:
F. H. Schott
W. Burroughs

Inventor:
Wm. T. Y. Schenck
By N. Bramford
Atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

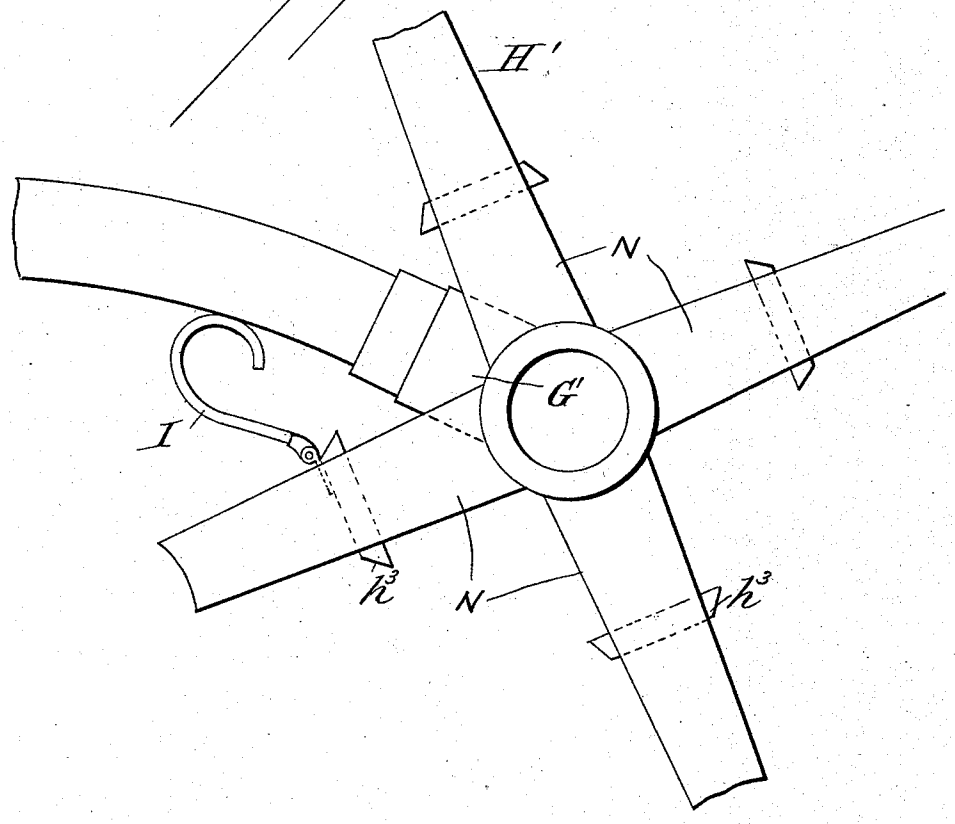
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Fig. 4.



Attest:
H. C. Schott
A. Burroughs.

Inventor:
Wm. T. Y. Schenck
By N. Cranford,
atty.

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM T. Y. SCHENCK, OF SAN FRANCISCO, CALIFORNIA.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 416,863, dated December 10, 1889.

Application filed June 1, 1889. Serial No. 312,865. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. Y. SCHENCK, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Hose-Reels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The invention relates to the class of hose-reels that are adapted to be secured in fixed positions within buildings, the essential object being to provide a reel of the kind that will be efficient and simple of construction and upon which the hose can be wound without kinks or angular bends therein, so that it will not be liable to break or crack transversely; and it consists in the construction and combination of parts hereinafter described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

Figure 1 of the accompanying drawings represents a central vertical longitudinal section of the reel embodying the invention, showing the supports thereof and the hose wound on, the latter being shown in dotted lines. Fig. 2 represents an end view of the same, and Fig. 3 represents a detail sectional view of the stuffing-box or gland that connects the reel with the stationary water-pipe. Fig. 4 represents the hose-support when the hose is drawn out and filled with water.

Referring to the drawings by letter, A designates a stationary water-pipe, which in practice is secured to the wall or other suitable part of the building, and is provided with an offset B, having a stop-cock or valve A′, that regulates the amount of water flowing through said offset from the pipe. Said valve A′ may be operated either by a lever or hand-wheel, as shown in the drawings. The outer end of the offset B is externally screw-threaded and engages in the screw-threaded opening of the boss or hub *c* of the support-bar C, that forms one end of a supporting-frame, preferably rectangular, that secures the device to the wall. The said supporting-frame is composed of straight parallel side bars, as shown, and the transverse end bars C C′, which are provided with perforated feet *c′*, through the openings in which they are bolted to the side bars near the ends thereof. The end bars C C′ curve sigmoidally outward from their ends to their centers, at which points are formed the aligned eyes or bearings c^2 c^3, respectively, for purposes hereinafter explained.

The supporting-frame is secured to the wall by screws or other suitable means requiring no particular description.

D is a stuffing-box or gland adjoining the offset B and composed of the following parts:

F designates the shell of the stuffing-box, having the externally-screw-threaded portion *d*, which screws into the inner portion of the bearing c^2 against the end of the offset B, which it equals in diameter both externally and internally. F′ is the diametrically-enlarged portion of said shell, having between itself and the screw-threaded portion *d* the circumferential shoulder *b′*, which, when the shell is in position, rests or is seated upon the inner end of the bearing c^2. The enlarged portion F′ is screw-threaded internally inward from its opening to engage with the externally screw-threaded shank of the gland-sleeve *f*, the end of which bears upon the packing *f′*, of flax or other suitable flexible material.

E is a tube with its outer portion passing within the gland-sleeve *f* and having a circumferential flange *e* on its end, which flange rests and is arranged to turn on the interior face of the shoulder *d′*. A packing-ring or washer *e′* rests upon the flange *e* and prevents undue friction between the said flange and the packing *f′*.

From the above it is obvious that the tube E can rotate freely within the stuffing-box described without danger of leaking. Aligned with the tube E is a tubular stem G, that is journaled at its outer end in the bearing c^3 of the bar C′.

G′ is a thimble having a closed base and opposite internally-screw-threaded projections *g g′*, which respectively engage the externally-screw-threaded ends of the tubes E and G. The thimble G′ communicates with

the tube E, but does not communicate with the tube G, so that no water can flow from the pipe A through the tube E into the pipe G. The thimble G′ has an extension on the end opposite its base, and can have fitted thereon, either by a screw-thimble or by any ordinary well-known means, the end of the hose *x*, having a suitable discharge-pipe or nozzle at its free end.

H is the reel, composed of the end wheels H′ and H² and the longitudinal slats h^3 connecting the same. The wheel H′ has its hub mounted on the tube E, adjacent to the thimble G′, and the wheel H² has its hub mounted on the tubular stem G, a short distance from the inner side of the bar C′. The arms or spokes N of the wheels H′ H² are preferably four in number and are provided with inwardly-standing lugs N′, that are perforated for the passage of screws that bind the ends of the slats h^3 thereto.

To one of the slats h^3 adjacent to the thimble G′, to which the hose *x* is attached, is secured by a hinge-joint the curved plate I. This plate extends outward radially, its curved portion *i′* acting as a support for the hose and preventing the formation of kinks in the same both when the hose is empty and wound upon the reel. As the curved plate I is secured to the slat nearest the point of attachment of the hose, it is evident that when said hose is wound on the reel it will first pass over the curved portion of the plate and thence to the next slat, thus preventing the short turn or kink which would otherwise be formed near the point of its connection, and which is found in practice to be very injurious, as the hose soon breaks whenever kinks are repeatedly formed in it. As the winding proceeds, at the first revolution of the reel the hose is carried over the plate I and continued spirally to the opposite end of the reel, and is thence returned by winding in the same manner, layer upon layer, until the whole is upon the reel.

It is evident from the above description that the reel can turn freely on the tubes E and G to permit the hose to be pulled outward or unwound therefrom.

The slats h^3 are secured to the lugs N′ of the spokes N, which stand at points on the spokes very little outward axially from the coupling end of the thimble, so that the hose, if extended from the thimble directly to the adjacent slat, would make almost a rectangular bend. The hose is therefore extended over the curved plate I and carried to the second slat from the thimble. The slats are placed thus far inward for the purpose of permitting the hose to be wound layer upon layer on the reel, which will consequently carry a great length of hose. The plate I, being hinged on the slat, can be turned inward out of the way when not in use.

Having thus described my invention, what I claim is—

1. The combination, with a reel, of a curved sheet-metal plate attached by a hinge to one of the slats of the reel at such a point that the hose coupled to the nozzle or thimble will pass outward directly therefrom over said metal plate and to the second slat therefrom at the first turn, which plate is made convex outwardly to receive it, and will thus avoid being bent at its point of junction with the thimble, substantially as specified.

2. The combination, with the tubes E and G and the thimble connecting the adjacent ends of said tubes and having a laterally-projecting end to couple to the end of the hose, of the reel mounted on said tubes with one end adjoining said thimble and having its opposite end spokes connected by longitudinal slats not far outward, axially to the reel, from the coupling end of the thimble, and the sheet-metal piece I, hinged to the slat nearest to the thimble at such a point that the hose coupled to the thimble will pass over it during the first turn of the reel, and will thereby be prevented from cracking or breaking at its point of junction with the thimble, substantially as specified.

3. The combination, with the tubes E G and thimble G′, of the reel mounted on said tubes and composed of the end wheels H′ H², having spokes N, provided with lugs N′, and the slats h^3, secured to said lugs, and the spring-metal plate or piece I, hinged to the slat nearest to said thimble, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM T. Y. SCHENCK.

Witnesses:
LEWIS C. HUNTER,
J. A. CAMERON.