(No Model.) 2 Sheets—Sheet 1.

W. W. STEWART.

HOSE REEL.

No. 600,274. Patented Mar. 8, 1898.

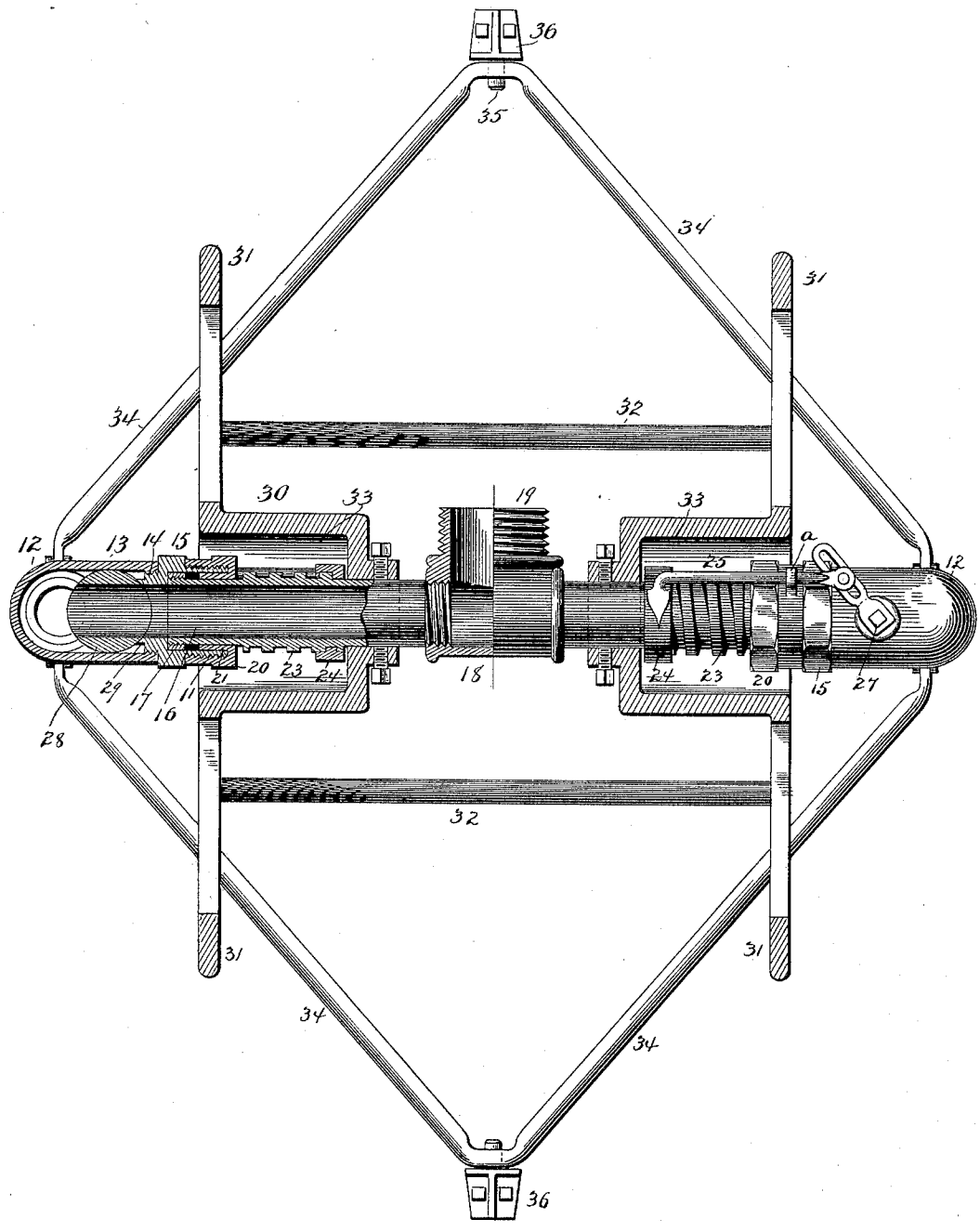


Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 2.

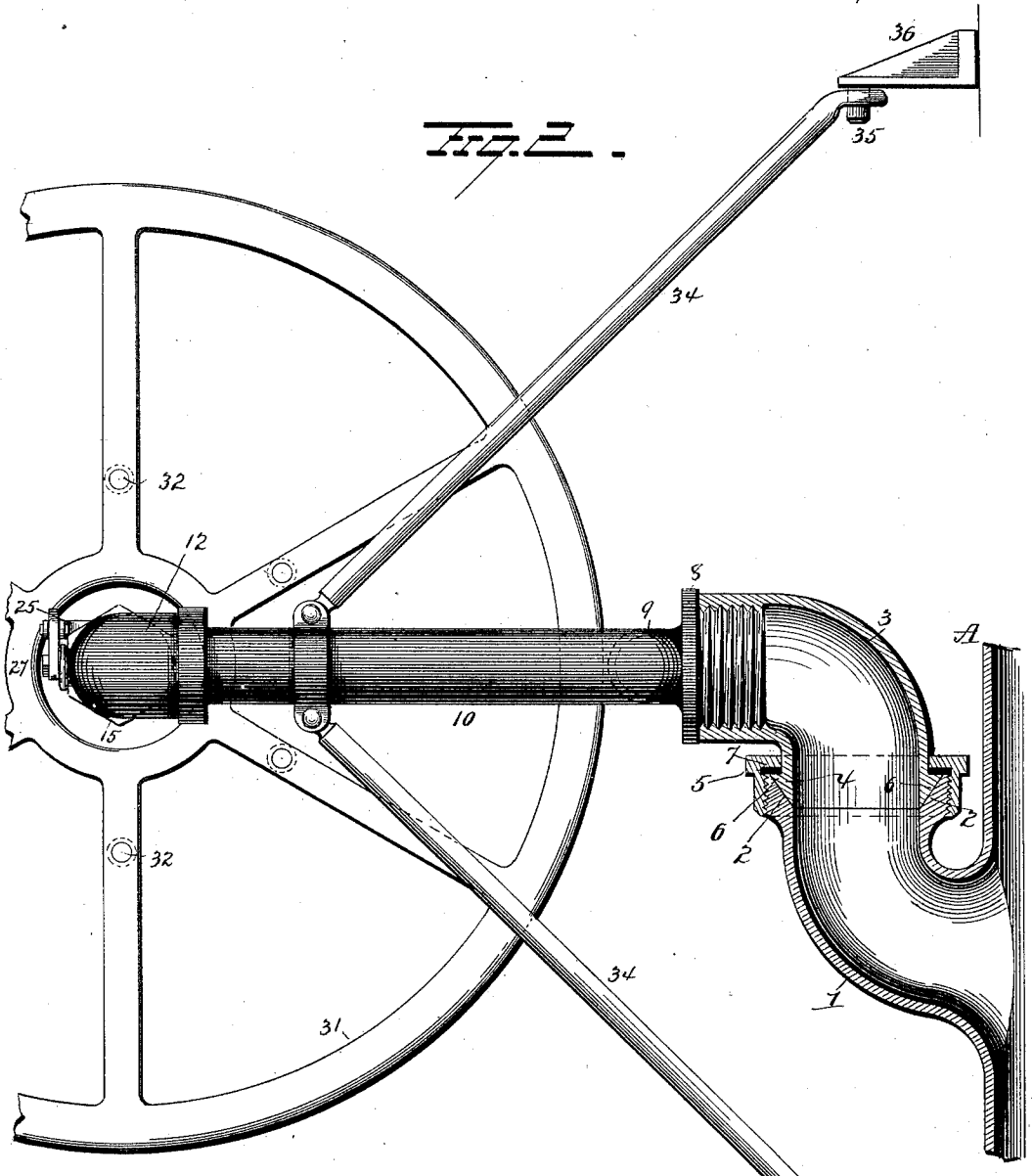
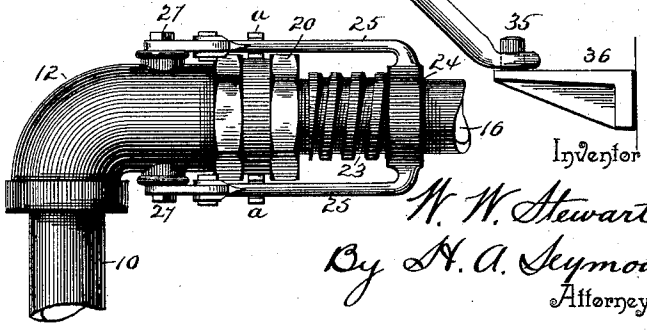


FIG. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM W. STEWART, OF COLUMBUS, GEORGIA.

HOSE-REEL.

SPECIFICATION forming part of Letters Patent No. 600,274, dated March 8, 1898.

Application filed May 22, 1897. Serial No. 637,772. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. STEWART, a resident of Columbus, in the county of Muscogee and State of Georgia, have invented certain new and useful Improvements in Hose-Reels; and I do hereby 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.

My invention relates to an improvement in hose-reels, and more particularly to such in which the hose is permanently connected with a water-supply, the object of the invention being to so construct and arrange a hose-reel that the supporting-frame shall constitute simple and efficient means for conducting water to the hose and to contain means for automatically controlling the flow of water through the hose when the reel is turned or rotated.

A further object is to provide a hose-reel with simple and efficient valve mechanism constructed to be automatically operated to open and close the supply of water to the hose when the reel is turned or rotated in one direction or the other.

A further object is to produce a hose-reel and water-supply devices to be permanently connected with the hose on said reel which shall be simple in construction, comparatively cheap to manufacture, and which shall be effectual in all respects in the performance of their functions.

A further object is to construct a hose-reel having a hose thereon permanently connected with a water-supply in such manner that the reel-supporting frame can be moved laterally, whereby to permit the hose to be drawn off of or unwound from said reel in any desired direction.

With these objects in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as hereinafter set forth, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front face view of my improved apparatus, partly in elevation and partly in section. Fig. 2 is an end view, partly in section; and Fig. 3 is a detail view illustrating the valve-operating mechanism.

A represents a portion of a vertical water-supply pipe, which may be located in the wall of the building to which my improvements are attached. The main water-supply pipe A is provided at a suitable point with an elbow 1, the interior of the horizontal outlet of which is beveled, as at 2. The lower end of another elbow 3 is provided with a beveled end 4, which has a bearing on the seat 2 and adapted to turn thereon. The free or outlet end of the elbow 1 is screw-threaded externally for the reception of a cap 5, and between this cap and the shoulders 6 on the elbow 3 and the outlet end of the elbow 1 a packing-ring 7 is located. The outer end of the elbow 3 is screw-threaded internally for the reception of a coupling 8, with which two pipes 9 communicate, each of which is about one-half the diameter of the elbow 3. The pipes 9 project laterally from their connection with the elbow 3 and then outwardly to form a U-shaped frame 10, to the free ends of the parallel arms of which elbow-couplings 12 are connected.

Within member 13 of each coupling 12 a sleeve 14 is screwed and provided with an annular flange 15, adapted to bear against the end of said member 13 of the coupling. A pipe 16 (equal in diameter to that of the pipes of the U-shaped frame) is mounted in each sleeve 14, and each pipe 16 is provided at its outer end with a collar 17, having its bearing within the sleeve 14. The pipes 16 are in line with each other and communicate at their inner ends with a T-coupling 18, the outlet 19 of which is of a diameter double that of each member of the U-shaped frame 10, said outlet of the coupling 18 being screw-threaded externally for the reception of a hose-coupling. Each sleeve 14 is made with a screw-threaded portion 11, on which a nut 20 is screwed, said nut being provided with an internal annular flange 21, which surrounds the pipe 16 and serves to compress a packing-ring 22, disposed between its end and the collar 17 on said pipe 14. Each pipe 16 is made externally with wide screw-threads 23, on which a nut 24 is located. Each nut 24 is provided with arms 25 at diametrically opposite points, and said arms, projecting outwardly between lugs *a* on the nut 20, are connected with a slotted arm 25, secured to the stem 27 of a valve

28, located within the members 13 of the respective couplings 12, said valves 28 being adapted to coöperate with the ends 29 of the sleeves 14.

A reel 30 is secured to the pipes 16, said reel comprising two heads or ends 31 31 and intermediate bars 32, (the latter preferably being of wood,) upon which the hose is wound, the inner end of the hose being connected with the T-coupling 18, as above explained. Each head or end of the reel is made with a recessed hub 33, which serves as a housing for the screw-threaded portions of the pipes 16. By this construction the screw-threads 23 on the pipes 16 will not only be protected, but the apparatus is made compact.

V-shaped braces 34 are secured at their ends to the parallel members or arms of the U-shaped frame, and at the apex each V-shaped brace is made with a hole for the reception of a pintle 35, projecting from a casting 36, secured to the wall of the building to which the apparatus is attached.

From this construction and arrangement of parts it will be seen that the reel and its frame can be turned in the arc of a circle, (the couplings 1 and 3 being revolubly connected together,) so that the hose can be pulled from the reel in any desired direction. When the hose is pulled from the reel, so as to rotate the latter, the pipes 16 will be rotated also, and the nuts 24 will be made to travel on the screw-threaded portions 23 of said pipes and thus operate the valve 28 to open them and permit water to flow through the U-shaped frame to the hose.

My improvements are simple in construction and effectual in all respects in the performance of their functions.

Slight changes might be made in the details of construction of my invention without departing from the spirit thereof or limiting its scope, and hence I do not wish to limit myself to the precise details herein set forth.

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

1. The combination with a pipe-frame adapted to communicate with a water-supply, of a pipe revolubly mounted in said frame, a reel secured to said revoluble pipe, a valve in the pipe-frame and connections between said valve and the revoluble pipe, said connections being constructed and adapted to operate the valve when said revoluble pipe and reel are turned, substantially as set forth.

2. The combination with a pipe-frame adapted to communicate with a water-supply, of a pipe revolubly mounted in said pipe-frame and communicating therewith, said revoluble pipe having screw-threads thereon, a reel secured to the revoluble pipe, a valve in the pipe-frame, an arm on the stem of said valve, an internally-screw-threaded collar or nut on said revoluble pipe, means for preventing said collar or nut from turning and an arm projecting from said collar or nut and connected with the arm on the valve-stem, substantially as set forth.

3. The combination with a water-supply pipe, of a pipe-frame revolubly connected therewith, a revoluble pipe mounted in said pipe-frame and adapted to have a hose connected therewith, a reel secured to said revoluble pipe for the accommodation of said hose, a valve in said pipe-frame, and devices between said valve and the revoluble pipe for operating said valve automatically, substantially as set forth.

4. The combination with a water-supply pipe, of a pipe-frame mounted revolubly on said supply-pipe and communicating therewith, a revoluble pipe mounted in said pipe-frame and communicating therewith, a reel mounted on said revoluble pipe and means for controlling the flow of water through said pipe-frame, and revoluble pipe to a hose connected with the latter, substantially as set forth.

5. The combination with a water-supply pipe, of a pipe-frame mounted revolubly thereon and communicating therewith, a revoluble pipe in said pipe-frame and communicating therewith, said revoluble pipe being constructed to have a hose attached thereto, a reel secured to said revoluble pipe, and pivoted braces attached to said pipe-frame, substantially as set forth.

6. The combination with a pipe-frame, a revoluble pipe mounted therein and communicating therewith and a reel secured to said revoluble pipe, of a head or collar on said revoluble pipe, a nut on the pipe-frame where the revoluble pipe enters the same, a sleeve on said nut adapted to surround said revoluble pipe and a packing between said sleeve and the head or collar on the revoluble pipe, substantially as set forth.

7. The combination with a pipe-frame, a revoluble pipe mounted therein and a reel secured to said revoluble pipe, of a sleeve secured to the pipe-frame and having a flange bearing against the same, a head or collar on the revoluble pipe and mounted in said sleeve, a nut on said sleeve, an annular flange on said nut adapted to surround the revoluble pipe and a packing-ring between said annular flange and the head or collar on the revoluble pipe, substantially as set forth.

8. The combination with a water-supply pipe and an elbow thereon, of another elbow revolubly mounted on said first-mentioned elbow, a pipe-frame connected with said revoluble elbow, a revoluble pipe mounted in and communicating with said pipe-frame, and a reel secured to said revoluble pipe, substantially as set forth.

9. The combination with a pipe-frame adapted to communicate with a water-supply and an elbow-coupling secured to each arm of said frame, of a revoluble pipe mounted in and communicating with said couplings, a coupling between the ends of said revoluble pipe, a reel secured to the revoluble pipe,

screw-threaded nuts or collars mounted on said revoluble pipe, arms projecting from said nuts or collars, means for preventing said nuts or collars and arms from turning with the revoluble pipe, a valve in each elbow-coupling and connections between said valves and the arms on the screw-threaded nuts or collars, substantially as set forth.

10. The combination with a pipe-frame adapted to communicate with a water-supply, of elbow-couplings, each having one member connected with the respective ends of said pipe-frame, a revoluble pipe mounted in the other members of said elbow-couplings and having screw-threaded portions, valves mounted in said couplings, screw-threaded collars or nuts mounted on the revoluble pipe, arms projecting from said nuts or collars, projections on the couplings for preventing said arms and collars or nuts from turning with the revoluble pipe, connections between said arms and valves, a reel secured to the revoluble pipe and means for connecting a hose with said revoluble pipe, substantially as set forth.

11. The combination with a pipe-frame and a revoluble pipe mounted therein and communicating therewith and adapted to have a hose connected thereto, of screw-threads on said revoluble pipe, a reel secured to said revoluble pipe, a nut or collar mounted on the screw-threaded portion of the revoluble pipe, a valve in the pipe-frame, a slotted arm projecting from the stem of said valve, an arm secured to said nut or collar and connected with said slotted arm and means for preventing said nut or collar and arms secured thereto, from turning, substantially as set forth.

12. The combination with a pipe-frame and a revoluble pipe mounted therein and communicating therewith, said revoluble pipe being adapted to have a hose connected therewith, of a sleeve secured to the pipe-frame and serving as a bearing for the revoluble pipe, a valve in said pipe-frame and coöperating with the end of said sleeve, screw-threads on the revoluble pipe, a nut or collar on the screw-threaded portion of the revoluble pipe, arms secured to said nut or collar at diametrically opposite points, means for preventing said nut or collar and arms from turning, and slotted arms secured to the stems projecting from said valve and connected with the arms on the nut or collar, substantially as set forth.

13. The combination with a pipe-frame and a revoluble pipe mounted therein and communicating therewith, said pipe being adapted to have a hose connected therewith, of screw-threads on said revoluble pipe, a valve in the pipe-frame, a nut or collar on the screw-threaded portion of the pipe-frame, connections between said nut or collar and valve, and a reel secured to said revoluble pipe, said reel having a hub or recess constructed to act as a housing for the screw-threaded portion on the revoluble pipe and devices connected directly therewith, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM W. STEWART.

Witnesses:
P. T. SHUTZE,
J. GRAFTON KIMBROUGH.