B. H. MONTGOMERY AND J. B. B. DINGWALL.

HOSE REEL.

APPLICATION FILED JUNE 16, 1917. RENEWED FEB. 13, 1920.

Patented Oct. 5, 1920.

1,354,504.

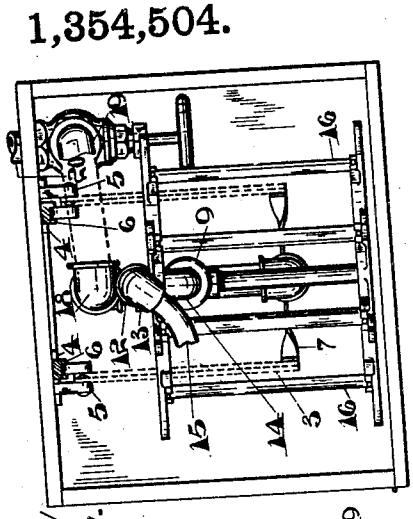


Fig. 3.

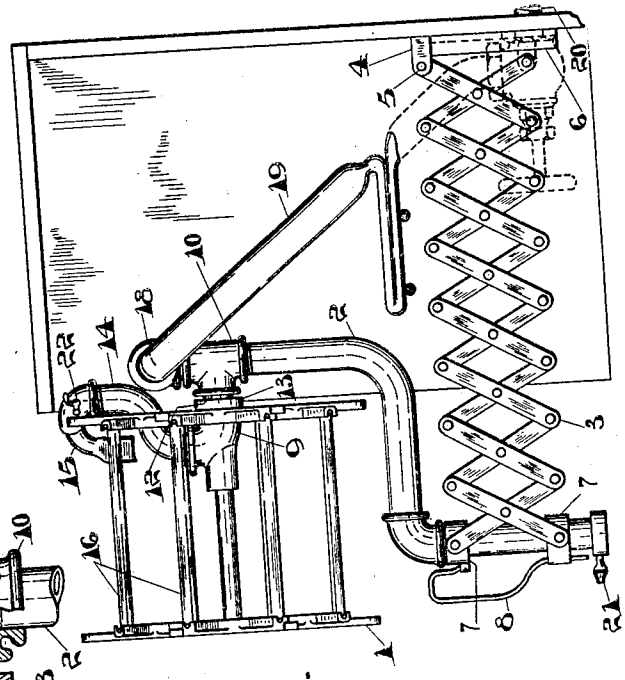


Fig. 2.

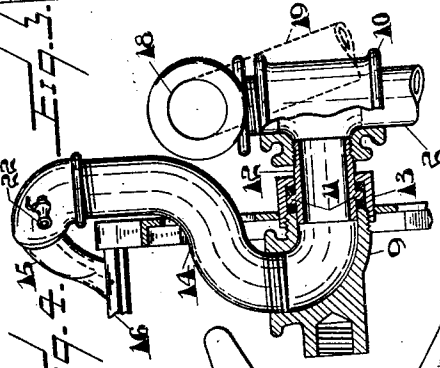


Fig. 4.

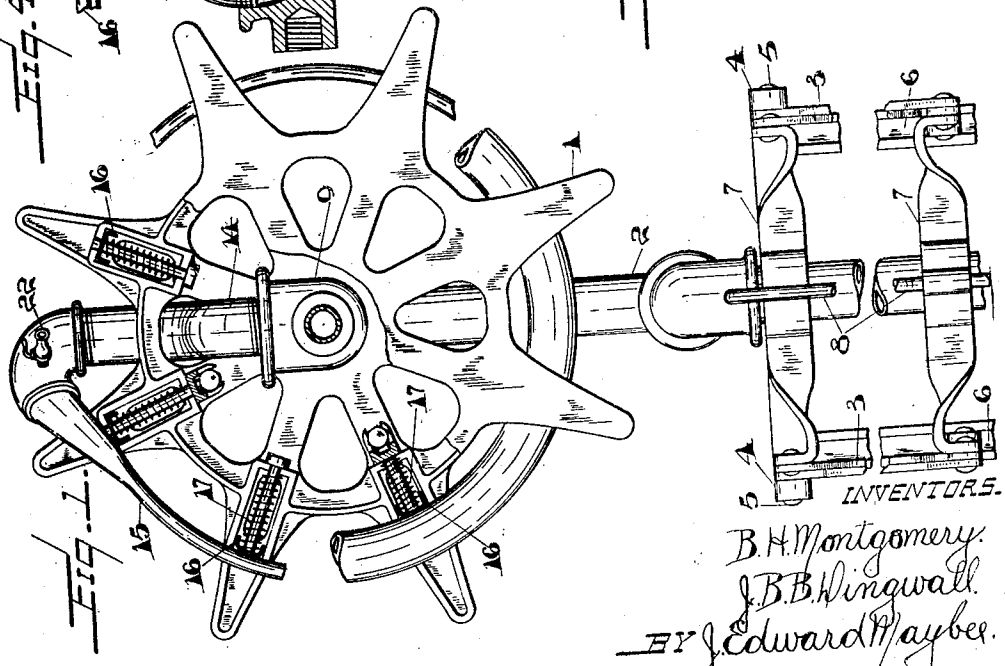


Fig. 1.

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# UNITED STATES PATENT OFFICE.

BEAUCHAMP HY. MONTGOMERY AND JOHN BERTRAM B. DINGWALL, OF TORONTO, ONTARIO, CANADA; SAID DINGWALL ASSIGNOR OF HIS ONE-HALF TO JANE EMILY DINGWALL, OF TORONTO, CANADA.

## HOSE-REEL.

1,354,504. Specification of Letters Patent. Patented Oct. 5, 1920.

Application filed June 16, 1917, Serial No. 175,201. Renewed February 13, 1920. Serial No. 358,408.

*To all whom it may concern:*

Be it known that we, BEAUCHAMP H. MONTGOMERY and JOHN BERTRAM B. DINGWALL, of the city of Toronto, in the county of York, Province of Ontario, Canada, have invented certain new and useful Improvements in Hose-Reels, of which the following is a specification.

This invention relates to hose reels located in permanent positions in buildings and constructed so that the water may be turned on and a stream of water obtained before the hose is unwound from the reel. A demand exists for a reel which will not obstruct a corridor in which it may be placed nor interfere with artistic architectural effects. We have therefore designed a reel and supports therefor which may be entirely contained in a cabinet or shallow recess in a wall, which reel and its supports are constructed in detail substantially as hereinafter more specifically described and illustrated in the accompanying drawings in which—

Figure 1 is a front elevation showing our improved reel set within a recess or cabinet;

Fig. 2 a side elevation of the same showing the reel drawn out of the recess; and

Fig. 3 a plan view showing the reel in the recess; and

Fig. 4 a sectional detail of the trunnion and hose connection for the reel.

In the drawings like numerals of reference indicate corresponding parts in the different figures.

The main feature of our invention is the arrangement of the reel so that it may be entirely received within a recess in the wall of a building or inclosed in a cabinet until such time as it is needed for use, when it may be drawn out and the hose run off the reel as may be desired.

The reel 1 is constructed as hereinafter described and is mounted on the bent arm 2, which is preferably formed of piping. This arm is carried by lazy-tong lever systems 3 connected with suitable supports 4 at the back of the cabinet. Two lever systems are preferably employed, the upper end of one of the rearward members of each being pivotally connected on the support as indicated at 5, while the end of the other rearward member is engaged in a channel shaped track 6. The forward ends of each member of each lever system are pivotally connected with cross bars 7.

The bent arm 2 is journaled on these cross bars 7, the lower bar being vertically slidable on the bent arm as the lever systems expand and contract. A handle 8 is secured to the upper cross bar and extends through a loop formed on the lower cross bar, which handle provides convenient means for expanding and contracting the lever systems.

The reel is provided with the hollow trunnion 9 formed as an elbow and revolubly connected with the T 10 on the bent arm 2. The rotatable connection is preferably arranged as follows. A flange 11 is formed on the end of the nipple 12 screwed into the T 10. On each side of this flange is fitted a washer or other suitable packing. The nipple fits within the end of the trunnion 9, the end of which is threaded for engagement by the flanged nut 13, the flange of which lies behind the flange 11 on the nipple. When this nut is screwed up sufficiently a water tight joint is formed while the trunnion is left sufficiently free to rotate on the nipple.

The trunnion is formed as an elbow and is connected with a curved hose connection pipe 14, which is bent to pass outwardly and radially through the end of the reel, thence inwardly and approximately tangentially adjacent the periphery of the reel. The hose 15 is connected with the end of this connection pipe. Owing to this arrangement the end of the reel can be set very close to the upper end of the bent arm 2 and at the same time the connection for the hose is brought very close to the end of the reel inside the same so that the hose may wrap around the reel close to the inner side of the end. There is thus no waste space on the reel, which may be made of a minimum length for a given length of hose.

The reel is formed of end members on which are supported cross bars 16 movable in radial slots and normally outwardly pressed by coil springs 17. Owing to this construction water may be turned on through the hose before the latter is unwound, as the swelling of the hose due to its filling with water is permitted by the in-

ward movement of the cross bars 16 under the pressure of the hose.

The water is preferably led to the upper end of the bent arm, which is provided with an elbow 18 to which is connected the flexible pipe 19 connected at its lower end with the stationary water supply pipe 20. A drainage cock 21 is preferably provided at the lower end of the hollow bent arm 2 which is preferably closed at the lower end. A drainage cock 22 is also preferably provided in the connection pipe 14. All parts of the system may thus be thoroughly drained when the water is turned off.

When the reel is within the cabinet the bent arm will be swung in over the lazy-tongs lever systems as indicated. When the reel is drawn out, it may be turned at right angles to the position which it occupied within the cabinet, or to any intermediate position as may be desirable in running off the hose.

With the arrangement described, the reel can be contained within a cabinet approximately 20″ wide by about 30″ long and 10″ deep, and will carry at least 75 feet of hose, which is ample for all ordinary purposes.

Various modifications may, of course, be made in the details of construction without departing from the spirit of our invention.

What we claim as our invention is:—

1. The combination of a hose reel; a vertically extending hollow supporting arm bent intermediate its ends to offset the upper end relative to the lower; a hollow trunnion journaled horizontally on the upper end of said arm and on which the reel is horizontally mounted above the bend in the arm; a vertical support secured to a stationary part; a lazy-tongs lever system suitably connected at its opposite ends to the reel supporting arm and the said vertical support; a stationary water supply pipe; and a flexible pipe forming a communication between the hollow supporting arm and the water supply pipe; and a hose adapted to be wound on the reel and connected with the hollow trunnion.

2. The combination of a hose reel; a vertically extending supporting arm bent intermediate its ends to offset the upper end relative to the lower; a hollow trunnion journaled on the upper end of said arm and on which the reel is horizontally mounted above the bend in the arm; a vertical support secured to a stationary part; a lazy-tongs lever system suitably connected at one end to said support, the supporting arm being suitably supported at the other end of said lever system and mounted to turn thereon; a stationary water supply pipe; a flexible pipe forming a communication between the hollow trunnion and the water supply pipe; and a hose adapted to be wound on the reel and connected with the hollow trunnion.

3. The combination of a hose reel; a vertically extending hollow supporting arm; a hollow trunnion journaled horizontally on said arm and on which the reel is horizontally mounted; a vertical support secured to a stationary part; a lazy-tongs lever system suitably connected at one end to the vertical support, the supporting arm being mounted to turn on the other end of said lever system; a stationary water supply pipe; a flexible pipe forming a communication between the hollow arm and the water supply pipe; and a hose adapted to be wound on the reel connected to the hollow trunnion.

4. The combination of a hollow substantially horizontal trunnion; a reel mounted thereon, the said trunnion passing through the end of the reel and turning laterally; a curved hose connection pipe connected with the inner end of the hollow trunnion bent to pass outwardly and radially through the end of the reel, thence inwardly and approximately tangentially adjacent the periphery of the reel; and a hose connected at one end to said pipe.

5. The combination of a hose reel; a vertically extending supporting arm on which the reel is horizontally mounted; vertical supports secured to a stationary part; two lazy-tong lever systems each suitably connected to one of the supports; two horizontal bars to which the other ends of said lever systems are suitably connected, the supporting arm being journaled on said cross bars and being supported by one of them; a stationary water supply pipe; a flexible pipe forming a communication between the hollow trunnion and the water supply pipe; and a hose adapted to be wound on the reel and connected with the hollow trunnion.

6. The combination of a receptacle; a fixed support within the receptacle; extensible carrying means connected with said support; a hose reel mounted on said carrying means to rotate on a horizontal axis and to swing in a horizontal plane.

7. The combination of a receptacle; a fixed support within the receptacle; extensible carrying means connected with said support; a hose reel mounted on said carrying means to rotate on a horizontal axis and to swing in a horizontal plane; a fixed water supply pipe; a hose wound on the reel; a hose connection carried by the reel; and a flexible conduit between said supply pipe and the hose connection.

Signed at Toronto, Canada, this 15th day May, 1917.

BEAUCHAMP HY. MONTGOMERY.
JOHN BERTRAM B. DINGWALL.