

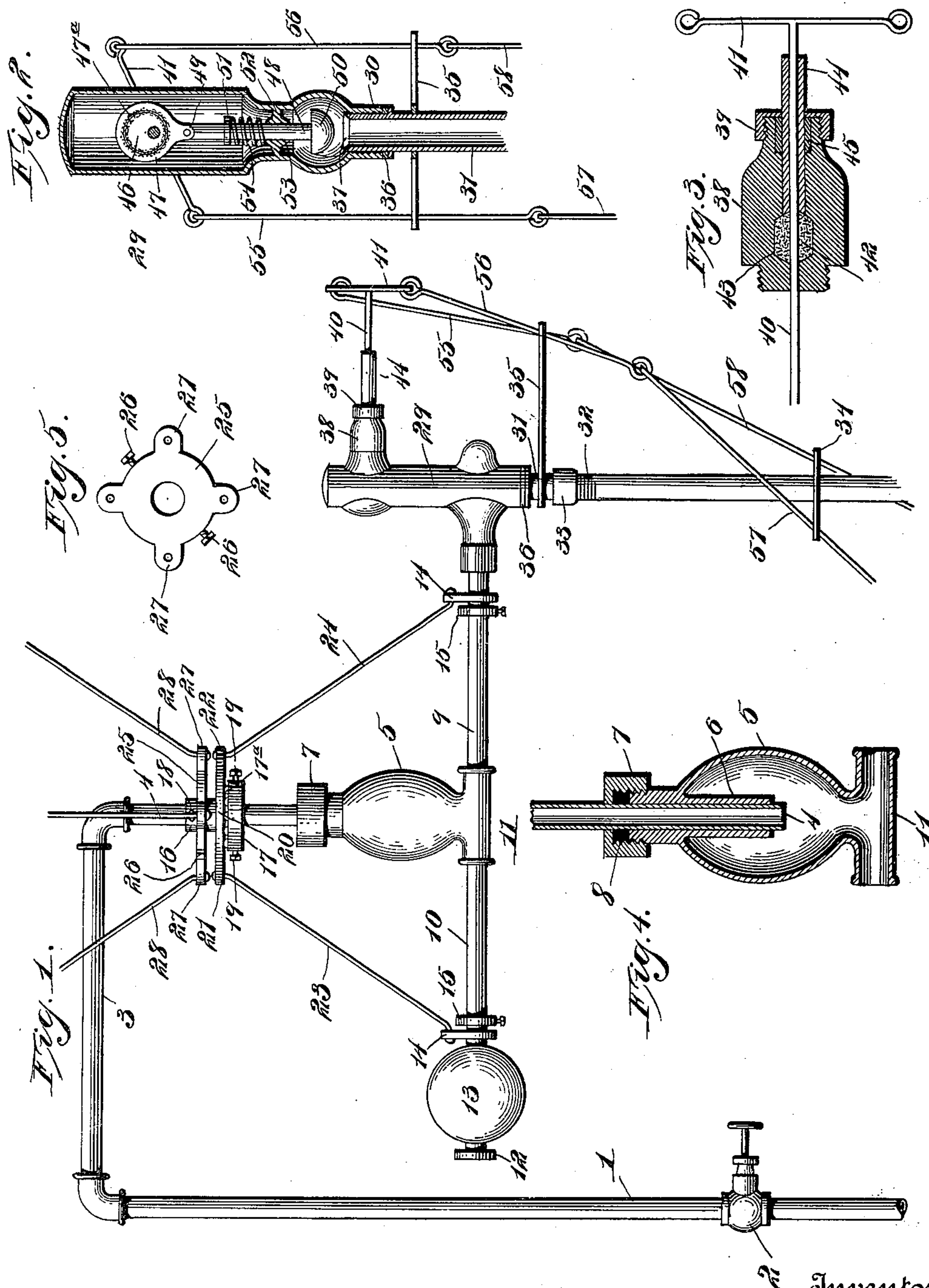
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Patented Dec. 11, 1900.

L. T. FOREMAN.  
SWINGING HOSE BRACKET.

(Application filed Apr. 2, 1900.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

LEWIS T. FOREMAN, OF OMAHA, NEBRASKA.

## SWINGING HOSE-BRACKET.

SPECIFICATION forming part of Letters Patent No. 663,566, dated December 11, 1900.

Application filed April 2, 1900. Serial No. 11,235. (No model.)

*To all whom it may concern:*

Be it known that I, LEWIS T. FOREMAN, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Swinging Hose-Brackets, of which the following is a specification.

My invention relates to swinging hose-brackets.

One object is to provide a superior hose-bracket for use in livery-stables and around boilers, forges, furnaces, and other places where it is desirable that a supply of water be at all times under immediate command and where it is necessary that the hose be used in different places at different times.

A further object is to provide an improved hose-bracket which can be swung around to different positions and will be equipped with novel valve mechanism which can be easily and quickly manipulated from the floor at any time and the supply of water regulated as desirable without any danger of overflowing, or, on the other hand, of the supply being cut off by excessive pressure should the valve become nearly closed.

Having these objects in view, my invention consists of a swinging hose-bracket comprising certain improved features and novel combinations appearing more in detail herein-after in the following description and appended claims.

In the accompanying drawings, Figure 1 is a side elevation showing my improved hose-bracket; Figs. 2 and 3, sectional views of my improved valve and its casing; and Fig. 4, a detail sectional view of the air-chamber, a certain pipe and housing depending therein, and packing therefor. Fig. 5 is a detailed plan view of the turn-plate.

My improved hose-bracket can be located in any part of the room; but it is generally preferable to place it near the wall or one corner thereof.

The numeral 1 designates a vertical supply-pipe which is provided with a suitable cut-off valve 2, so that the supply may be shut off whenever necessary. This supply is continued across the ceiling, as at 3. To the end of this latter pipe there is coupled a depend-

ing pipe 4, which is preferably constructed of brass.

The numeral 5 designates an air-chamber in which is located a depending pipe-housing 6. The lower end of pipe 4, which I shall term a "pivot-pipe," projects down into the housing 6.

The numeral 7 designates a nut which is screwed to the upper end of the air-chamber, and 8 is packing which passes through the nut and prevents the water from leaking at this point. The lower end of the air-chamber is in communication with another pipe 9, which in the present instance I shall designate a "swinging" pipe or arm. A second pipe or rod 10 is connected to a coupling 11, formed integral with the lower portion of the air-chamber, and at the end of this pipe, which I shall designate a "counterbalancing-pipe," is located a fixed collar 12.

The numeral 13 designates a weight which is slidable on counterbalancing-pipe 10. On this arm or pipe there are located a slidable eye 14 and a clamping-collar 15. The eye 14 is connected by a brace to a novel kind of turn-plate rotatable on the depending pipe 4, and this connection will be described presently. A similar eye 14 and collar 15 are located on arm or pipe 9 and likewise connected to this turn-plate. On pipe 4 there is located a sleeve or body 16, having a head 17. Diametrically-disposed clamping-screws 18 pass through the body and bind against the pipe, while other screws 19, located diametrically opposite and at right angles to the screws 18, pass through the head and bind against the pipe.

At 20 is shown a turn-plate which has two arms 21 and 22. This turn-plate is adapted for rotation with the body 16 and lies adjacent the upper face of the head 17, anti-friction-rollers 17<sup>a</sup> being positioned in a suitable raceway in the head 17 to aid the rotation of the turn-plate. The arms of the turn-plate are connected to the respective eyes 14 by brace-rods 23 and 24. On the body of the sleeve and located between the turn-plate and the clamping-screws 18 is a collar 25, which is provided with set-screws 26, so that it may be clamped to the body of the sleeve. The collar is provided with a series of ears



27. Brace-rods 28 connect these ears with the ceiling, so that pipe 4 is held in rigid vertical position.

I will now describe my improved valve mechanism.

At 29 is shown the valve-casing, which is suitably coupled to swinging pipe 9. This casing is provided with a screw-threaded coupling 30, which connects with a short pipe 31, and 32 designates a flexible hose having a coupling-socket 33 on its upper end, which screws into the lower end of pipe 31.

The numeral 34 designates a bracket which encircles the hose and is provided with suitable eyes through which certain pull-rods, to be described later on, pass.

The numeral 35 designates a second bracket, having an inner end which encircles the pipe 31, located between coupling-socket 33 and a packing-ring 36, and through this bracket the pull-rods pass. It will be observed that the upper end of the short pipe 31 is formed into the valve-seat 37. I prefer this construction, because when the short pipe is removed the valve-seat is removed also and the inside of the casing made readily accessible.

At 38 is shown a box for the valve-shaft, which screws into the front side of the valve-casing. This box is provided with a cap 39.

The numeral 40 designates a valve-shaft which is provided on its outer end with a double arm 41 and has its inner end journaled in the valve-casing. At 42 is shown the packing for this shaft, and this packing is provided with an enlarged portion 43, which is received in a pocket in the valve-shaft box and has an elongated cylindrical sleeve 44, which extends out through cap 39 for a considerable distance. There is also an additional packing-ring 45, which abuts against the inside of cap 39. In the valve-casing and connected to the valve-shaft is an eccentric 46, which is encircled by an eccentric-strap 47, and between said eccentric and strap are a plurality of balls 47<sup>a</sup> to provide anti-friction-bearings for the parts just referred to. A valve-rod 48 is pivotally connected to an ear of the eccentric-strap, as at 49, and the lower end of this valve rod or stem carries a semispherical valve 50, which is adapted to be seated on seat 37. On the valve-rod there is located a collar 51.

The numeral 52 designates a bar which extends across the valve-casing and is provided with a substantially spherical head 53, through which the valve-head loosely works.

The numeral 54 designates a coil-spring which encircles a valve-rod and is located between collar 51 and head 53.

At 55 and 56 are shown two pull-rods which are connected to the ends of the double arm 41, and these pull-rods pass loosely through the head of bracket 35. Additional links of the pull-rods are shown at 57 and 58, and these terminate at their lower ends in rings

or hinges and they pass freely through the eyes of bracket 34.

The operation is as follows: After the bracket has been swung around to the proper position the pull-rods can be worked, whereby the eccentric will be turned and the valve-rod and its valve lifted against the action of the spring to unseat the valve and allow the water to pass through. By operating the pull-rods the amount of opening can be changed as desirable and the proper quantity of water allowed to flow out through the hose. If the valve is almost seated, so that but a small quantity of water is flowing through the hose, should a large pressure come against the valve it will be prevented from closing by the coil-spring, which constantly exerts a tendency to prevent the valve from seating itself. Owing to the peculiar construction of the device the counterbalancing and swinging device can be moved around in a horizontal plane to any desired point without any consequent leakage of the water. The device is especially adapted for blowing out boiler-flues and for other purposes.

If it is desirable to have a bracket located very close to a wall, this can easily be compensated for by swinging the counterbalancing arm or pipe and adjusting the brace-rod 23, as well as employing a greater weight.

It is obvious that slight and immaterial changes of construction might be resorted to by one skilled in the art to which my invention appertains without departing from any of its advantages, and hence it is to be understood, therefore, that I do not limit myself to the precise construction herein shown and described, but consider that I am entitled to all such variations as come within the spirit and scope of the invention.

I claim—

1. In a swinging hose-bracket, the combination with a pivot-pipe in fluid communication with the source of supply, of the swinging pipe provided with an air-chamber into which the pivot-pipe projects, a valve controlling the passage of fluid through the swinging pipe, a counterbalancing pipe or arm connected to the swinging pipe, a weight on said counterbalancing-arm, eyes slidable on the swinging pipe and the counterbalancing pipe or arm, clamping-collars located on said pipe and arm, a pivot-plate rotatable on the pivot-pipe, and braces connecting said pivot-plate with the slidable eyes.

2. In a swinging hose-bracket, the combination with a depending pivot-pipe connected to the ceiling, of a sleeve located on said pipe and clamped thereto, being provided with a head, a collar fastened to the sleeve, braces connecting said collar to the ceiling, a pivot-plate rotatable on the sleeve and abutting against the head thereof, a swinging pipe pivotally connected to the pivot-pipe and in fluid communication therewith, a valve governing



the passage of the fluid through said swinging pipe, a weighted counterbalancing arm or pipe connected to the swinging pipe and extending in opposite directions therefrom, and  
5 braces connecting the swinging pipe and the counterbalancing arm or pipe with the pivot-plate.

10 3. In a swinging hose-bracket, the combination with a pivot-pipe in fluid communication with the source of supply, of a swinging pipe pivoted to the aforesaid pipe and in communication therewith, a valve-casing connect-

ed to the swinging pipe, a hose connected to the casing, a valve-shaft, an eccentric connected to the valve-shaft, an eccentric-strap, 15 a double arm connected to the valve-shaft, and pull-rods connected to the ends of said double arm.

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

LEWIS T. FOREMAN.

Witnesses:

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E. M. CLARK.