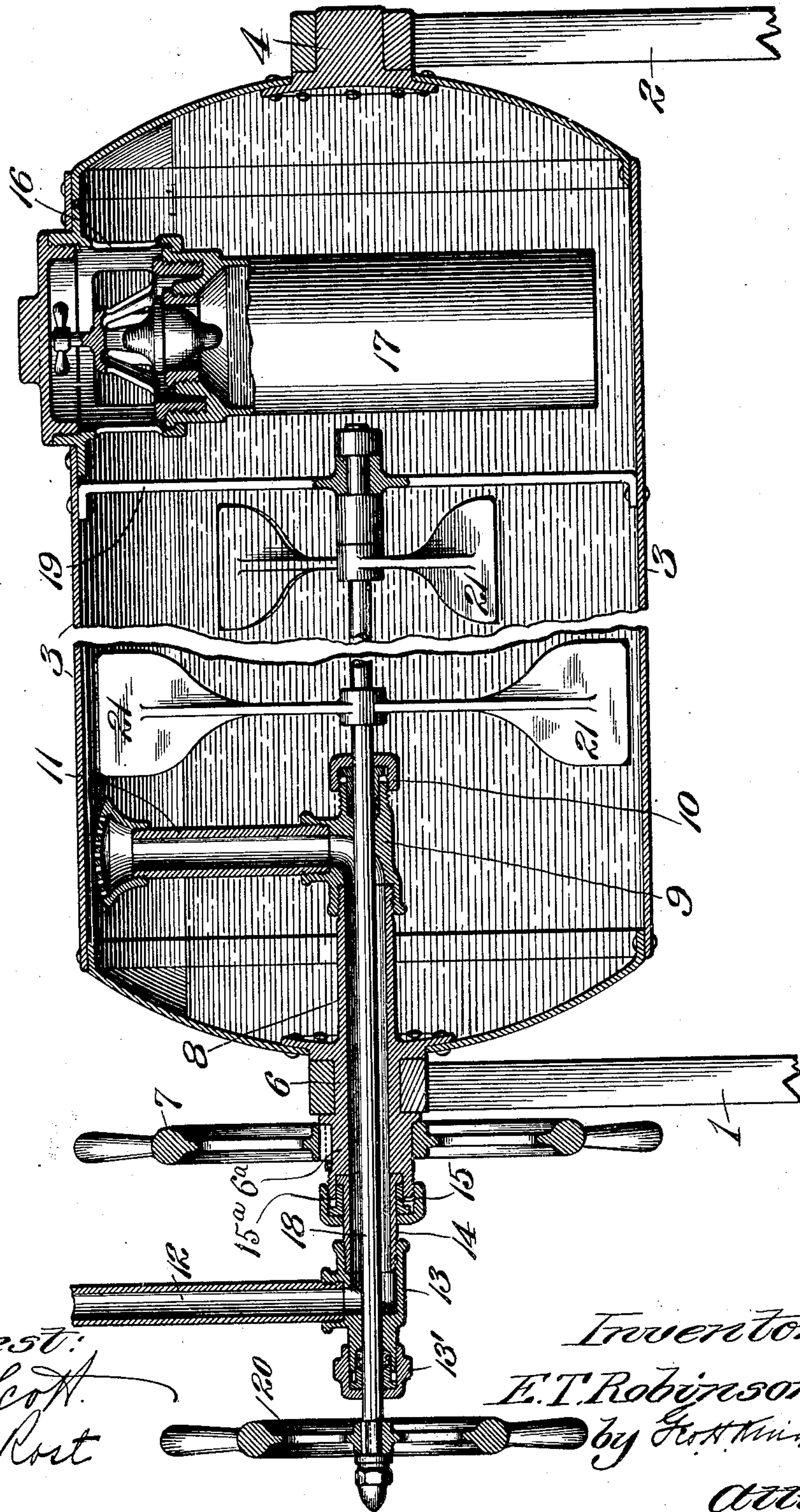


No. 897,017.

PATENTED AUG. 25, 1908.

E. T. ROBINSON.  
FIRE EXTINGUISHER.  
APPLICATION FILED MAR. 16, 1908.



Attest:  
*Wm. H. Scott*  
*Lily Root*

Inventor:  
*E. T. Robinson,*  
*by Geo. H. Knight*  
*Atty.*



# UNITED STATES PATENT OFFICE.

EARLE T. ROBINSON, OF ST. LOUIS, MISSOURI.

## FIRE-EXTINGUISHER.

No. 897,017.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed March 16, 1908. Serial No. 421,517.

*To all whom it may concern:*

Be it known that I, EARLE T. ROBINSON, a citizen of the United States of America, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Fire-Extinguishers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to that character of chemical fire extinguishers in which the essential features are a rotatable, or partly rotatable, cylinder for the reception of water, means for supporting an acid containing receptacle from which acid is discharged into the water in the cylinder, when said cylinder is partly rotated to provide for the production of a gas, means for the escape of the fire extinguishing fluid from the cylinder, and means whereby the fluid may be agitated before it escapes from the cylinder.

My invention has for its object the production of a fire extinguisher containing the essential features stated which, while containing all of the merits of more complicated extinguishers, is of marked simplicity.

The drawing is a longitudinal section taken through my fire extinguisher.

In the accompanying drawings: 1 and 2 designate supports that preferably constitute portions of a truck by which my extinguisher is carried.

3 designates a horizontal cylinder that is provided at one end with an imperforate trunnion 4 mounted in the support 2 and at the other end with a hollow trunnion 6 mounted in the support 1. The trunnions 4 and 6 provide for the rotation of the cylinder 3, in order that it may be tilted.

7 is hand wheel fixed to the hollow extension 6<sup>a</sup> of the hollow trunnion 6 and by which the cylinder is turned to tilt it.

At the outer head of the cylinder 3, and extending from the inner end of the hollow trunnion 6, is a hollow neck 8 to the extremity of which is attached an inner elbow coupling or union 9 provided with an inner stuffing box 10 in a line with the hollow neck and having utility to be mentioned.

11 is a radial discharge pipe fitted to the coupling 9 and extending transversely of the cylinder 3. This discharge pipe is adapted to receive the fluid in the cylinder when the cylinder is tilted to carry the pipe from an upright position to an inverted position, in

order that the fluid may be discharged from the cylinder into the hollow neck 8 and the hollow trunnion 6.

12 is a radial escape pipe for the fluid which is placed in communication with the hollow trunnion 6. This pipe 12 is attached to an outer elbow coupling 13, in which is seated a connecting pipe 14 that is loosely fitted to the outer end of the hollow extension 6<sup>a</sup> of the hollow trunnion 6 and is held to the trunnion extension 6<sup>a</sup> by a gland 15 which in turn is secured by a collar 15<sup>a</sup> connected with the hollow trunnion extension 6<sup>a</sup>. The loose connection of the escape pipe 12 to the hollow trunnion extension 6<sup>a</sup> of the hollow trunnion 6, which has just been described, provides for the rotation of said trunnion and its extension and the cylinder of my extinguisher without affecting the said escape pipe or the movement of the escape pipe, without any effect upon the cylinder.

16 designates a radially arranged bottle holder attached to the wall of the cylinder 3, and 17 is an acid receiving bottle supported by said holder, and from which the contents is adapted to be discharged into the cylinder and into water therein, when the cylinder is tilted to invert the bottle and also the discharge pipe 11 is tilted to submerge it into the water in order that the water may be impregnated with the acid, and gas produced in the cylinder to force the fluid through the discharge pipe 11, through the connections leading to the escape pipe 12, and through said escape pipe.

To provide for the agitation of the water and acid in the cylinder, I utilize an agitator which comprises a shaft 18 that is journaled at its outer end in and extends longitudinally through an outer stuffing box 13' carried by said outer elbow coupling, and through the latter, through the hollow trunnion 6, through the inner elbow coupling 9, and its inner stuffing box 10 and into the cylinder 3. The inner end of this shaft is journaled in a cross bar 19 that is transversely arranged in the cylinder. The shaft 18 is adapted to be rotated by a hand wheel 20, and it is equipped within the cylinder with mixer blades or arms 21.

I claim:—

1. A chemical fire extinguisher comprising a horizontal cylinder having a trunnion, at one end, and a hollow trunnion formed with a hollow neck and a hollow extension at the



other end, a radial discharge pipe connected with the hollow neck, a radial escape pipe with which the hollow trunnion extension is loosely coupled, and an agitator having an operating shaft extending through the juncture of the radial discharge pipe with the hollow neck, through the latter, through the hollow trunnion, through the trunnion extension and through the juncture of the trunnion extension with the radial escape pipe.

2. A chemical fire extinguisher comprising a horizontal cylinder having a trunnion, at one end, and a hollow trunnion formed with a hollow neck and a hollow extension, at the other end, a radial discharge pipe, an elbow coupling connecting the radial discharge pipe with the hollow neck, a radial escape pipe an elbow coupling connected with the radial escape pipe and with which the trunnion extension is loosely coupled, and an agitator having an operating shaft extending through the discharge pipe elbow coupling, through the hollow neck, through the hollow trunnion, through the trunnion extension and through the escape pipe elbow coupling.

3. A chemical fire extinguisher comprising a horizontal cylinder, having a trunnion, at one end, and a hollow trunnion formed with a hollow neck and a hollow extension, at the other end, a radial discharge pipe connected with the hollow neck, a connecting pipe with which the hollow trunnion extension is

loosely coupled, a radial escape pipe with which the connecting pipe is coupled, and an agitator, having an operating shaft extending through the juncture of the radial discharge pipe with the hollow neck, through the latter, through the hollow trunnion, through the trunnion extension, through the connecting pipe and through the juncture of the trunnion extension with the radial escape pipe.

4. A chemical fire extinguisher comprising a horizontal cylinder having a trunnion, at one end, and a hollow trunnion formed with a hollow neck and a hollow extension, at the other end, a radial discharge pipe, an elbow coupling connecting the radial discharge pipe with the hollow neck, a connecting pipe with which the hollow trunnion extension is loosely coupled, a radial escape pipe, an elbow coupling connected with the radial escape pipe and with which the connecting pipe is coupled, and an agitator having an operating shaft extending through the discharge pipe elbow coupling, through the hollow neck, through the hollow trunnion, through the trunnion extension, through the connecting pipe and through the escape pipe elbow coupling.

EARLE T. ROBINSON.

In the presence of—

LILY ROST,  
H. G. COOK.