(No Model.)

C. S. DEAN.

FIRE EXTINGUISHER.

No. 380,194. Patented Mar. 27, 1888.

Fig. 1.

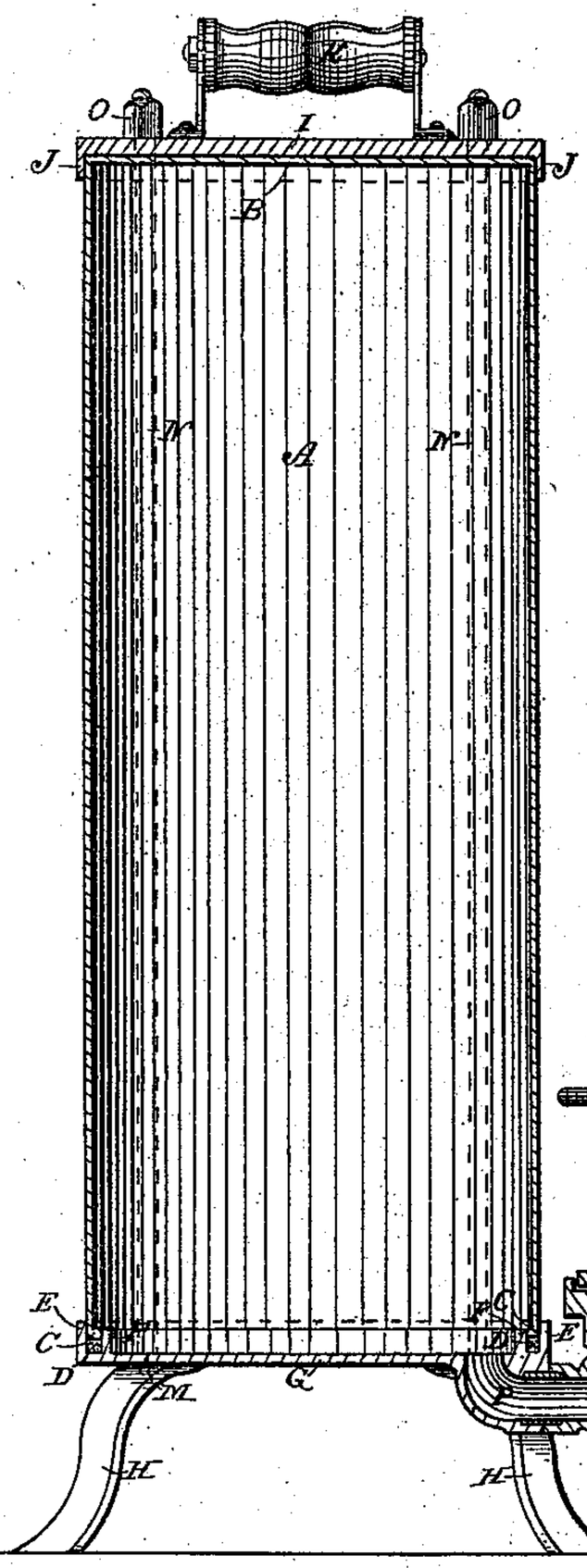
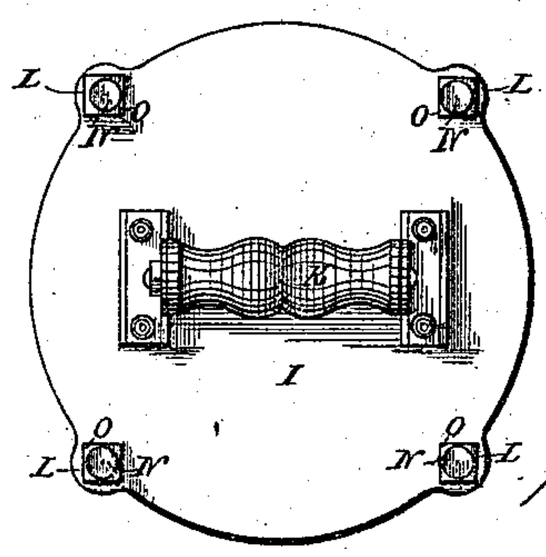


Fig. 2.



WITNESSES
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UNITED STATES PATENT OFFICE.

CYRUS S. DEAN, OF FORT ERIE, ONTARIO, CANADA, ASSIGNOR TO GEORGE W. DEAN, OF SAME PLACE, AND CYRUS H. WOODRUFF, OF BUFFALO, NEW YORK.

FIRE-EXTINGUISHER.

SPECIFICATION forming part of Letters Patent No. 380,194, dated March 27, 1888.

Application filed April 10, 1886. Renewed September 17, 1887. Serial No. 249,980. (No model.)

To all whom it may concern:

Be it known that I, CYRUS S. DEAN, a subject of the Queen of Great Britain, and a resident of Fort Erie, in the Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Fire-Extinguishers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a vertical sectional view of my improved fire-extinguisher, and Fig. 2 is a top view of the same.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to that class of fire-extinguishers in which compressed air is forced into a tank or receptacle filled partly with water and retained within the same, the receptacle being provided with suitable means for the attachment of a hose or nozzle; and it consists in the improved construction and combination of parts of such an extinguisher, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates a sheet-metal cylinder, having a head, B, integral with it, preferably formed by spinning, and having its lower edge, C, formed into a bead or roll. This beaded or rolled edge rests upon a yielding packing-ring, D, confined between a higher outer flange, E, and a lower inner flange, F, at the periphery of the base G, which is supported upon legs H.

A cover, I, having a downwardly-projecting flange, J, at its periphery, fits like a cap upon the closed top of the cylindrical reservoir, and is provided with a handle, K, for manipulating it, and the peripheries of this cover or cap and of the base are provided with perforated lips or ears L and M, through which rods N pass, which rods are provided with nuts O upon their ends, by means of which nuts the cap may be forced down upon the top of the reservoir, forcing the beaded edge against the base and its packing, forming an air and water tight joint. The base is formed with a curved tube-joint, P, near its periphery and integral with the base, and a globe-valve, Q, having suitable pipe-connection, R, with an air-compressor, is connected to this curved tube-joint or channel.

After the reservoir has been securely fastened together, it is partly filled with water or an extinguishing-fluid, and air is forced into it from an air-pump or compressor through the tube-joint P, which air collects above the liquid. After the desired amount of air has been stored in the reservoir, the valve Q is closed and the connection R removed and a suitable hose put in its place. When the extinguisher is to be used, the valve Q is opened, when the force of the compressed air above the liquid forces it out through the hose with sufficient force to throw it where wanted.

As the upper end of the reservoir is absolutely air-tight, being formed integral with the sides, it is impossible for the air to escape there, and as the liquid at the bottom forms a seal in addition to the flanged edge and elastic packing it is impossible for the air to escape at that end, so that after the reservoir has been once charged it will remain so for an almost indefinite period. The cap at the top, with its flange, prevents the bulging of the reservoir from the pressure of the compressed air upon the inside.

The flanges upon the base project upward from the face of the base, so that the groove formed between the flanges will in no manner weaken the base, as it would be liable to do if the groove were formed in the face of the base, and the outer flange is higher than the inner flange, so that it may serve as a guide in securing the end of the cylinder between the flanges and base and hold the end or edge after it has been forced down into the space or groove against the packing-ring.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

In a fire-extinguisher adapted to contain compressed air and a liquid, the combination of a base-plate having two flanges upon its upper face, the outer one of which is higher than the inner one, an elastic packing between said flanges, a cylindrical can having a closed

end and an inwardly-projecting flat bead upon the open end, whereby the pressure of the water is adapted to force the flange against the packing and the side of the can against the outer flange, a flanged cup upon the opposite end of the can, and means, substantially as described, for securing the parts together.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

CYRUS S. DEAN.

Witnesses:

LOUIS BAGGER,

WM. SECHER.