J. P. SCHMITZ.

Preserving-Apparatus.

No. 160,472. Patented March 2, 1875.

Fig. 1.

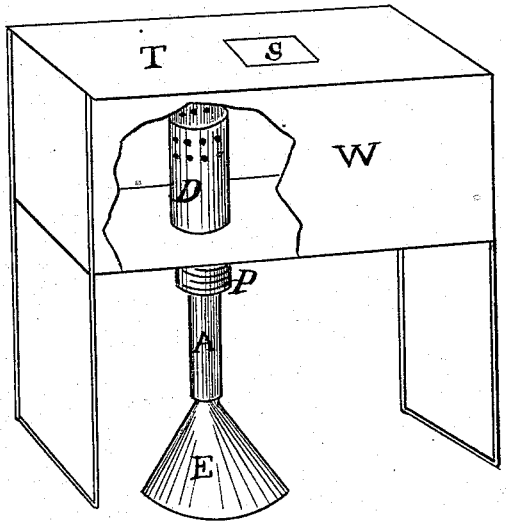


Fig. 2.

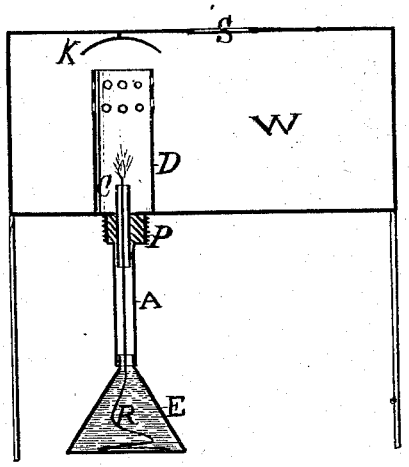


Fig. 3.

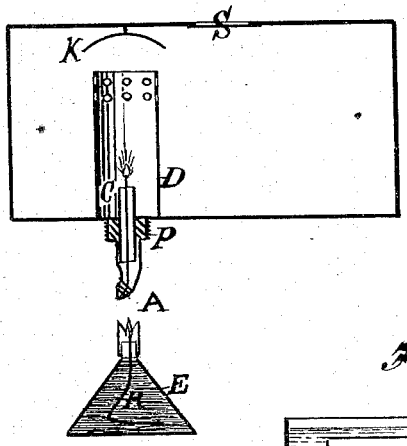


Fig. 4.

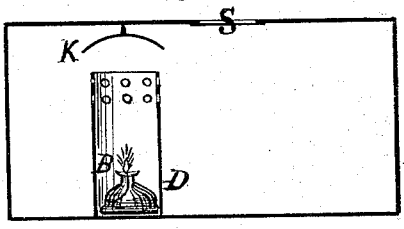
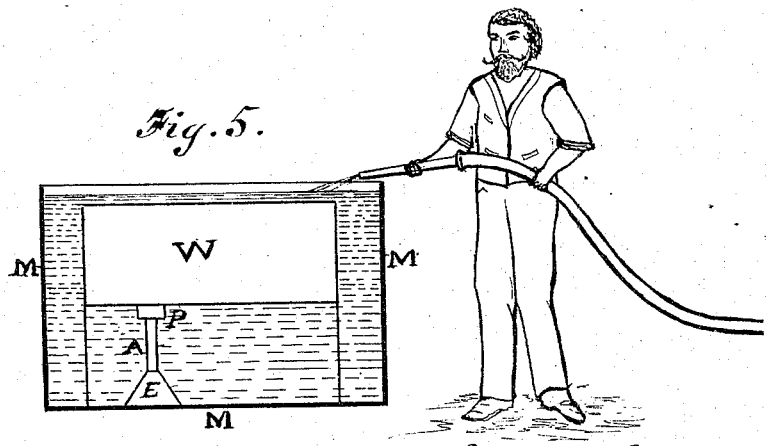


Fig. 5.



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UNITED STATES PATENT OFFICE.

JOHN PETER SCHMITZ, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN PRESERVING APPARATUS.

Specification forming part of Letters Patent No. **160,472**, dated March 2, 1875; application filed December 2, 1874.

To all whom it may concern:

Be it known that I, JOHN PETER SCHMITZ, of the city and county of San Francisco, and State of California, have invented a new and Improved Tank or Case for Preserving Liquids and Solids; and I do hereby declare the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a perspective view of the tank or case, showing the interior with its fire-protector. Fig. 2 is a longitudinal section. Fig. 3 is a longitudinal section, showing the tube or pipe of the burner disconnected from the oil-can. Fig. 4 is a longitudinal section, showing how I employ a common lamp in the preserving-tank. Fig. 5 shows the process of cooling the tank or case while the fire inside is burning.

The object of my invention is an improvement in the class of preserving apparatus for liquids and solids which are based on the principle of the destruction or abstraction of oxygen from, or formation of an atmospheric vacuum in, the tank or case containing the substances to be preserved.

The improvement relates to features of construction and arrangement hereinafter described and claimed.

The tank or case W, which is represented as oblong and rectangular, may be of any other desired or suitable shape. It has an air-tight cover, T, which is intended to be removable. A glass plate, S, in the cover enables the condition of the fire in the tank to be conveniently inspected. The tank is provided with a lamp, B, or burner C surrounded, by a fire-protector, D, above which is suspended a concave plate, K. The pipe of the burner C extends through the wall of the tank, and communicates with an elastic tube, A, in connection with the fluid or oil can E. Outside of the tank, and around the tube or pipe, is placed a screw, P, onto which, after the operation of preserving is completed, is fastened a screw-cap. A wick, R, is placed in the lamp or burner, which communicates from the burner to the fluid or oil.

When solid substances are placed in the tank or case W to be preserved, then I employ a perforated fire-protector, D. When liquids are preserved the fire-protector is not perforated.

If the tank or case W is intended to be removed when occasion requires, I employ the burner surrounded by a fire-protector, and in connection with the elastic tube and oil-can, as shown in Figs. 1, 2, 3; but if the tank or case W is intended to be stationary, then I employ a common lamp, surrounded also by a fire-protector, and as shown in Fig. 4.

My process of preserving is as follows: When the wick and fluid have been placed in the lamp or burner and can, and the substance to be preserved being also placed in the tank or case W, then the lamp or burner is ignited, and the cover T is tightly closed. The tank or case W being placed in an open box, M, of which the side walls and bottom are water-tight, cold water is thrown on the tank or case W, as shown in Fig. 5, to prevent the tank or case from getting hot while the fire inside is burning. The flame in the tank or case is allowed to burn as long as there is sufficient oxygen within the tank to support combustion. When the flame dies out, which may be perceived through glass plate S, then I draw the water off from box M and lift the tank or case W out of the box. I tie with a string the elastic tube A, after which I cut the same apart, as shown in Fig. 3, and place a screw-cap over the tied-up elastic tube and fasten to screw P, thereby inclosing the tied-up tube and perfectly secure the burner from air entering into the tank W. The disconnected part of elastic tube and oil-can E may be used elsewhere.

What I claim is—

1. The flexible pipe A, applied to the tank W, in combination with the screw-stem P and the oil-can, substantially as and for the purpose described.

2. The preserving apparatus consisting of the tank W, fire-protector D, screw-stem P, the flexible pipe A, containing a wick, and a suitable oil-can, all combined and arranged substantially as shown and described.

JOHN PETER SCHMITZ. [L. S.]

Witnesses:

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