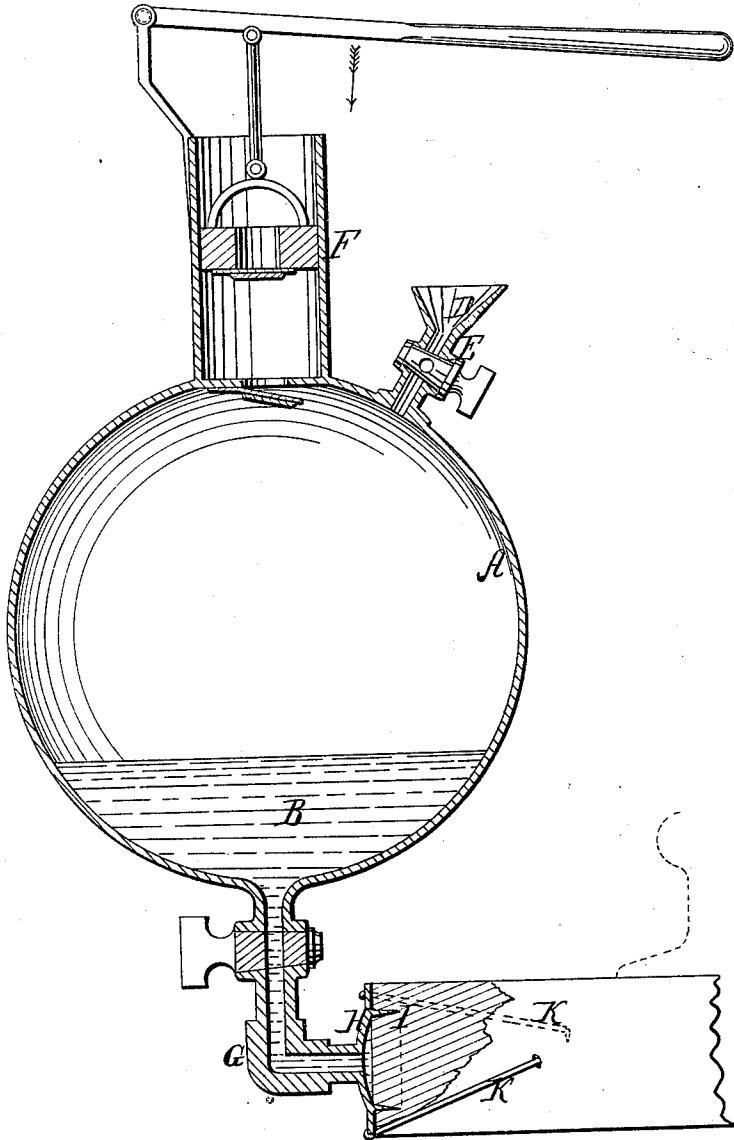


*W. H. Smyth,
Preserving Wood.*

N^o 111,784.

Patented Feb. 14, 1871.



Witnesses;

*Sustave Dietrich
Charles H. Nash*

Inventor;

*William H. Smyth
per Wm. S. O'Connell
Atty*

UNITED STATES PATENT OFFICE.

WILLIAM H. SMYTH, OF STEUBENVILLE, OHIO.

IMPROVEMENT IN APPARATUS FOR INJECTING PRESERVATIVE LIQUIDS INTO WOOD.

Specification forming part of Letters Patent No. **111,784**, dated February 14, 1871.

To all whom it may concern:

Be it known that I, WILLIAM H. SMYTH, of Steubenville, in the county of Jefferson and State of Ohio, have invented a new and useful Improvement in Apparatus for Charging Wood with Preserving Liquids; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing, forming part of this specification.

This invention relates to improvements in apparatus for forcing preserving liquids into wood; and it consists in a combination of an air-pump, liquid-receptacle, and compression-chamber, and an attaching device for connection to the wood or to a tank, adapted for the employment of compressed air or other equivalent gases for forcing the liquids in, all as hereinafter described.

The drawing is a sectional elevation of apparatus such as I propose to use.

A is the vessel for holding the liquid B to be forced into the wood, also the compressed air or gas to be used for forcing it. This vessel is provided with a supply-pipe, D, having a stop-cock, E, for closing it, also with an air-pump, F, for condensing the air, and also a tube, G, for conducting the liquid to the wood to be charged; or it may lead into a tank or closed chamber containing the wood. In case the liquid is to be applied to individual pieces of wood the said tube terminates in a cup, H,

with a rim, I, reduced to a sharp edge, to be driven into the wood at the end to make such a connection therewith as will prevent any escape of the liquid. This cup may have dogs K, or other equivalent means, for driving into the wood, to hold it against the tendency of the liquid to force it off. This cup may also be used for attaching the apparatus to a tank, if preferred. This mode of applying the liquid to the end of the timber is better than to apply it to the side, for it enters and follows the veins, which run lengthwise.

By means of a light portable apparatus of this kind any piece of timber may be readily charged where it lies without the labor of moving it into a charging-tank, and the ties of a railroad may be charged as they lie in the road, and the work may be done without obstruction while trains are running.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination of a liquid-holder and air or gas condensing chamber, an air-pump, and an attaching cup, adapted for attachment to a tank or the end of a piece of timber, for charging the timber by the action of compressed air or gas on the said liquid, all substantially as described.

WILLIAM H. SMYTH.

Witnesses:

JAMES A. McCURDY,
GEO. B. FILSON.