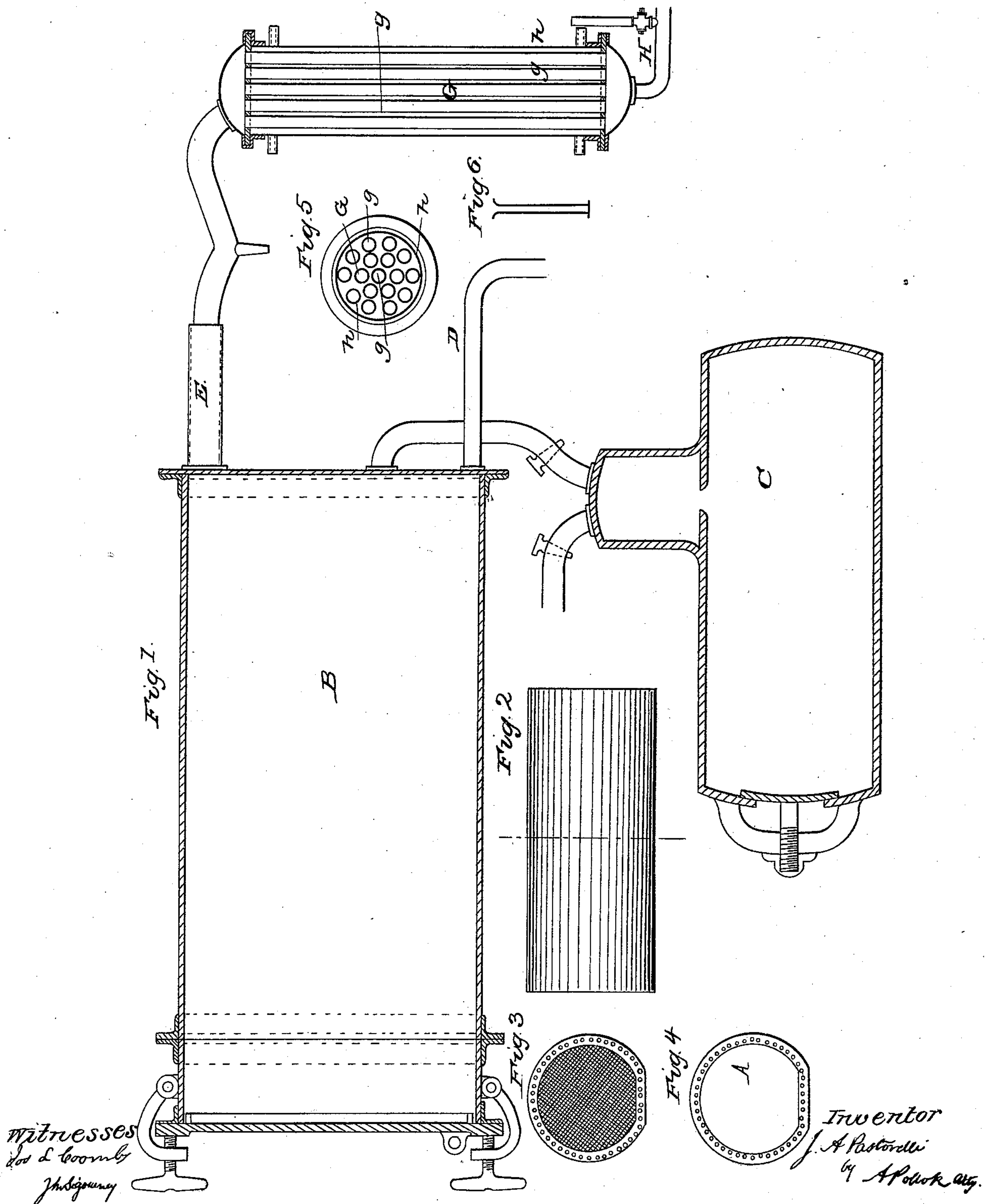


J. A. PASTORELLI.

Method of Extracting Turpentine from Wood.

No. 54,081.

Patented April 17, 1866.



# UNITED STATES PATENT OFFICE.

J. ANTOINE PASTORELLI, OF MARSEILLES, FRANCE.

## IMPROVED METHOD OF EXTRACTING TURPENTINE FROM WOOD.

Specification forming part of Letters Patent No. 54,081, dated April 17, 1866.

*To all whom it may concern:*

Be it known that I, JEAN ANTOINE PASTORELLI, a citizen of the Empire of France, and a resident of Marseilles, in the said Empire of France, have invented a new and useful Method of Extracting Turpentine and Pitch from Resinous Woods; and I do hereby declare that the following is a full and exact description thereof, so as to enable others skilled in the art to make and use my invention.

I declare also that I have obtained Letters Patent on the invention herein described in France on the 19th of October, 1864.

The nature of my invention consists in the extraction of resinous substances from the wood in one or in two successive operations by means of introducing steam into a cylinder to preserve the turpentine from being burned, or by means of introducing water into the cylinder instead of steam.

In the accompanying drawings, Figure 1 is a sectional elevation of an apparatus constructed and operated in accordance with this my invention; and Figs. 2, 3, 4, 5, and 6 are detail views of the said apparatus and its appurtenances, as will be hereinafter more fully explained.

In the said drawings, A is a cylinder, which is filled with the resinous wood and is introduced into another cylinder, B, which is placed over a furnace, and also communicates with a steam-boiler, C. The fire is then started in the furnace and under the boiler at the same time.

There are two tubes—one, D, at the bottom of the large cylinder, and one, E, at its top. The bottom tube communicates with an ordinary recipient. The top tube communicates with a tubular refrigerator, G, (consisting of a number of vertical tubes, *g*, open at top and bottom and inclosed in a vertical cylinder, *n*,) the bottom of which terminates in a pipe, H, leading to another recipient.

The cylinder containing the wood is closed at one end, and at the other end there is a grating, I, which permits the extracts to pass into the large cylinder as soon as the heat begins to effect the extraction of the resinous substances. The essence of turpentine passes through the top tube leading from the large cylinder into the refrigerator, and through the latter into the recipient communicating with the refrigerator.

After a certain time the communication between the large cylinder and the refrigerator may be cut off, and a stop-cock arranged in the bottom tube be opened while the communication between the large cylinder and the steam-boiler is shut up. By this means the pitch will be collected in the recipient into which the bottom tube leads. Instead of admitting steam, as above described, a certain quantity of water may be placed into the large cylinder, where it will be converted into steam.

The gases which are developed during the process of extraction are conducted (by means of a tube arranged for the purpose) into the furnace to serve there as additional fuel, or they may be conducted into a gas-recipient for purposes of illumination.

Having described my invention, what I claim therein as new, and for which I desire to obtain Letters Patent, is—

The distillation of resinous woods for the extraction therefrom of the essence of turpentine, &c., by the means and in the manner herein set forth—that is to say, by placing the wood in the boiler over an ordinary fire, together with water, to form steam to prevent the burning of turpentine formed, as above described, and for the purposes set forth.

JEAN ANTOINE PASTORELLI.

Witnesses:

E. SHERMAN GOULD,  
PENI.