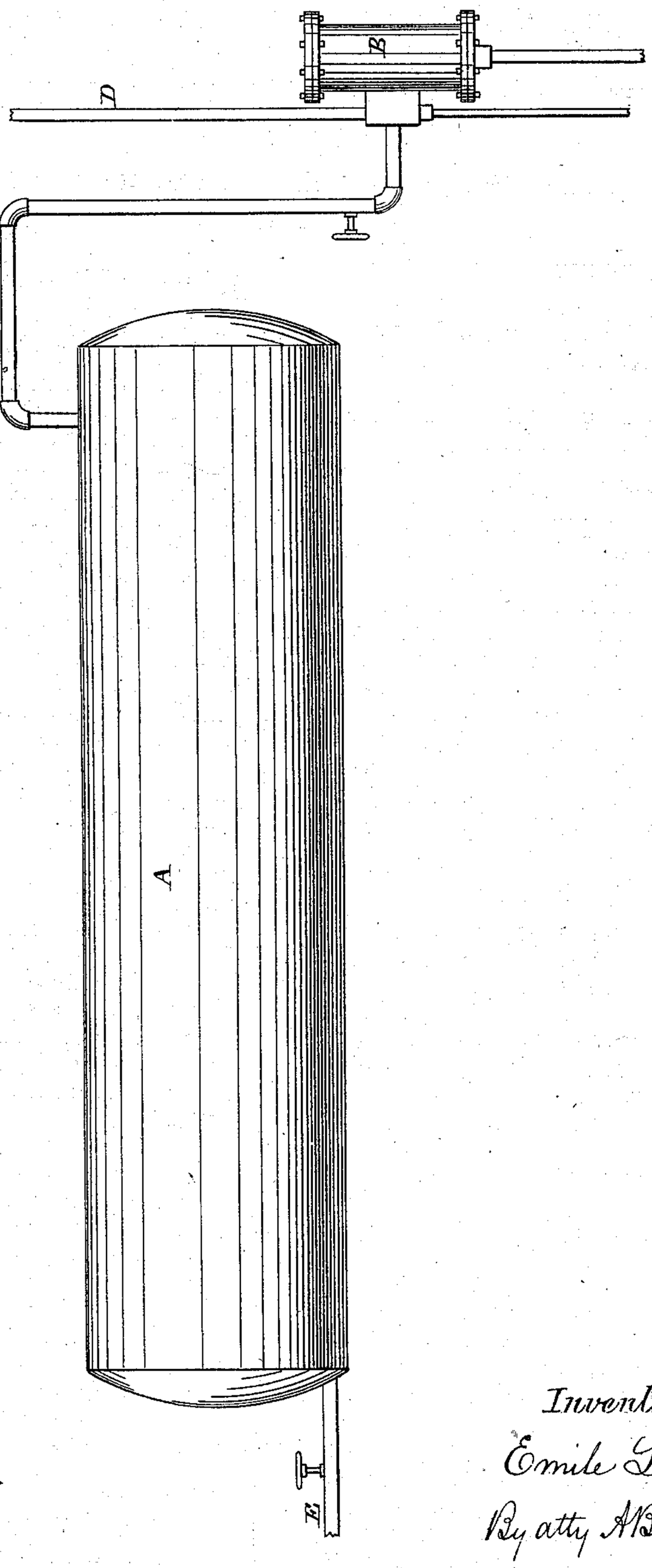
EMILE LAMM.

Improvement in Supplying Steam to Traveling Engines.

No. 125,577. Patented April 9, 1872.



Witnesses.
Alonzo Hughes
Edmund Masson

Inventor.
Emile Lamm.
By atty A B Stoughton.

125,577

UNITED STATES PATENT OFFICE.

EMILE LAMM, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN SUPPLYING STEAM TO TRAVELING-ENGINES.

Specification forming part of Letters Patent No. 125,577, dated April 9, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, EMILE LAMM, of the city of New Orleans, parish of Orleans, State of Louisiana, have invented a new and useful Thermo-Specific Engine, of which the following is a full and exact description.

Objects of my Invention.

The purpose of my invention is to store heat in a mass of water, or superheat the water until its temperature corresponds in a steam-boiler to two hundred pounds' pressure to the square inch, more or less. I then drive this superheated water into a strong iron reservoir placed on a street-car, or other vehicle to which a steam-engine connected with the above-named reservoir is adapted. The following phenomenon then takes place: The surplus heat which has been produced in the stationary boiler is carried along with the water when transferred into the reservoir on the car. This superadded or stored heat, without any additional fire on the car, causes fifteen per cent. of the water in the reservoir to fly off into steam, with an average pressure of one hundred pounds to the square inch, thereby enabling the car to run a distance of at least seven or eight miles. The above results are owing to the large capacity of water for heat.

By reference to the drawing hereto annexed and letters thereon my invention will be easily understood.

A is the reservoir on the car, containing the superheated water driven out of the stationary boiler. The sole and great difference between the reservoir A and the ordinary cylindrical steam-boiler is in its neither having nor requiring a furnace or fire for working the engine. It is well covered with non-conducting material so as to prevent, as much as possible, all radiation of heat into the atmosphere. B is an ordinary steam-engine, it is connected in the usual manner with the uppermost end of reservoir A, by means of the pipe C. D is the exhaust-pipe. The pipe E serves to drive the required charge of superheated water from the stationary steam-boiler at the beginning, and to discharge it from the reservoir at the end of each trip.

I will now explain the practical working of my invention: To prepare the car for the day's work, I put the reservoir A together with the engine in steam-connection with the stationary boiler, by means of pipe E, for the purpose of heating them to the required temperature. As soon as this is accomplished, the steam from the stationary boiler is cut off, and the reservoir is put in communication with the superheated water in said boiler, when the water rushes into and fills the reservoir A to the level desired, care being taken not to fill completely the reservoir in order to leave sufficient steam room. The car is then prepared for the trip, and as it returns to the station at the end of the trip the water yet remaining in the reservoir is discharged into a close vessel, and pumped back into the stationary boiler. I have thus invented a machine, which, intrinsically is not only as economical as the cheapest motor at present known; but, which, for the purposes intended, is practically much cheaper and safer than the ordinary steam-engine. As explained above, any number of cars can be run by an indefinite number of steam-engines, by means of one single fire at a central depot. Moreover, there being no danger of explosion from the reservoir, a skillful man is not needed to drive the engine. There is no danger of explosion, because a steam-boiler with no fire under it, and consequently a decreasing pressure cannot explode.

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

The employment as a motive power in propelling cars of highly heated water, from which steam is carried off and worked, said highly heated water being contained in a reservoir disconnected from the boiler where it is heated, and carried on or by the cars it is to propel, substantially as described.

EMILE LAMM.

Witnesses:

THEO. M. HYDE,

MICHAEL V. DYAR.