

J. WEART.  
Carbureting Apparatus.

No. 220,685.

Patented Oct. 14, 1879.

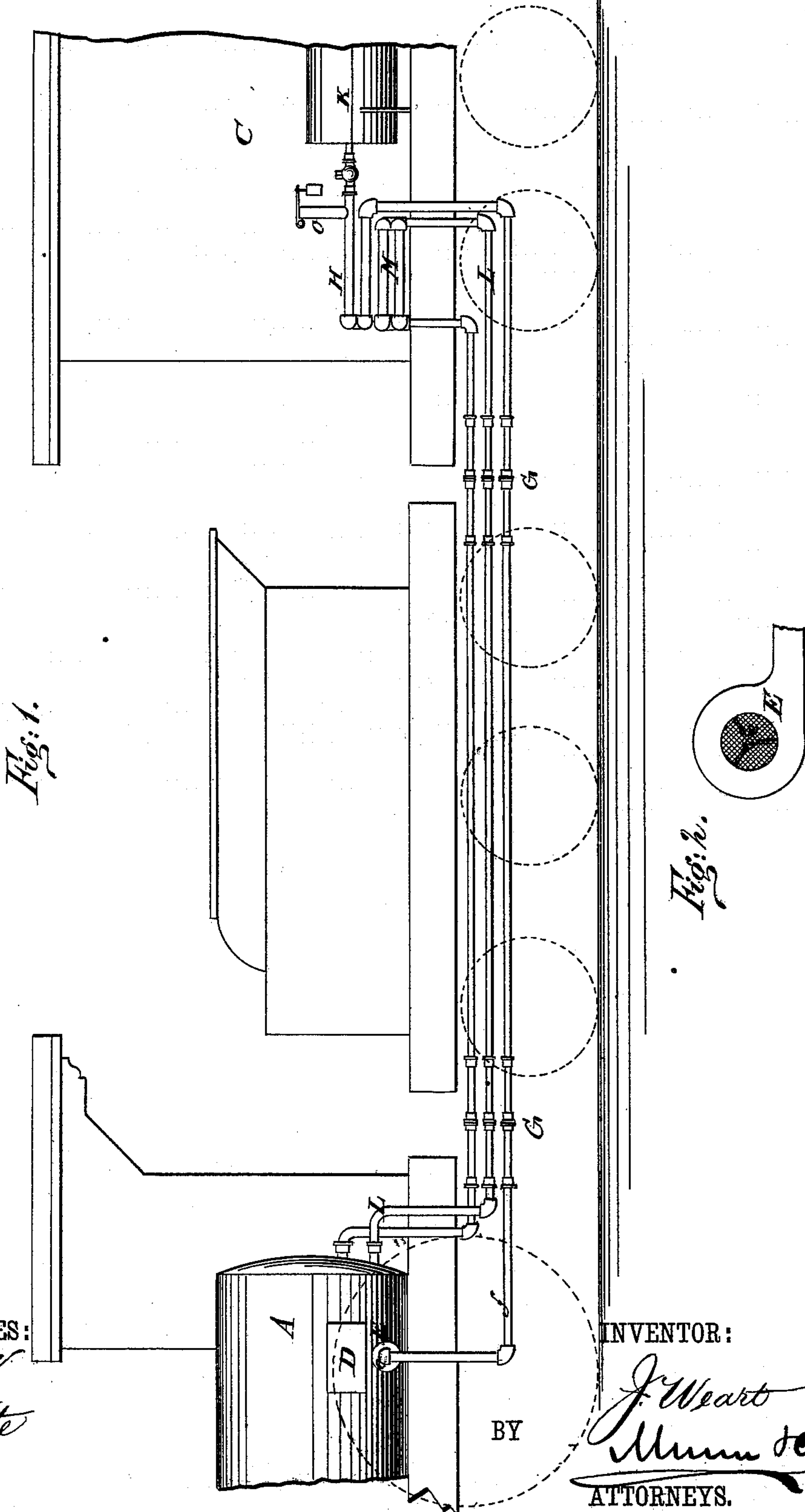


Fig. 1.

Fig. 2.

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# UNITED STATES PATENT OFFICE.

JACOB WEART, OF JERSEY CITY, NEW JERSEY.

## IMPROVEMENT IN CARBURETING APPARATUS.

Specification forming part of Letters Patent No. **220,685**, dated October 14, 1879; application filed May 14, 1879.

*To all whom it may concern:*

Be it known that I, JACOB WEART, of Jersey City, in the county of Hudson and State New Jersey, have invented a new and Improved Carbureting Apparatus, of which the following is a specification.

My invention relates to an air forcing and carbureting apparatus for illuminating railway-cars, the same being constructed and arranged and operating as hereinafter described, and as shown in accompanying drawings, in which I have shown by a sectional side view the apparatus as applied in connection with a locomotive and car.

A is the boiler of the locomotive. D is a donkey or other small engine fitted on the locomotive and taking steam from boiler A. E is a fan-blower, of usual character, also fitted on the locomotive and driven by the engine D. The inlet-openings *e* of the blower are covered by fine-wire screens, as shown in Fig. 2, to exclude dust that might be drawn in and forced into the pipes and carbureter.

From the blower E a pipe, *f*, preferably of metal, passes beneath the locomotive and tender to a coil, H, that is located on the car C, and from the coil to the carbureter *k*, also on the car C. The connection of the pipes between the locomotive and cars is made by flexible hose and coupling devices G, and between the coil H and carbureter there is a rising pipe, O, that is fitted with a safety-valve for permitting escape of air when the pressure becomes too great.

The carbureter K is to be of any usual or desired character, and will be fitted with pipes for conveying the enriched air to the burners in the usual manner. Contiguous to the air-coil H there is fitted a steam-coil, M, that is connected by pipe L with boiler A, so as to take steam therefrom, and coil M serves to heat the air passing through the coil H, so

that the air will be more or less heated before it enters the carbureter. This heater is especially useful in cold weather, to insure the vaporization of the hydrocarbon.

By this construction the required pressure can be readily maintained in the carbureter without the use of weights or other pressure devices applied in the cars in connection with each carbureter.

A blower connected by pipes with the carbureter, and adapted for operation by hand, will be placed on the car, so that the carbureter may be kept in operation when the locomotive is detached.

I am aware that air has been forced through a carbureting-vessel by means of a fan or blower, and that a steam-pipe has been conducted through a section of the air-conducting pipe of a carbureter for the purpose of heating the air on its way to the carbureter; but my invention does not pertain to such combination or operation of parts.

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

The combination, with the locomotive-boiler A and its attached donkey-engine and the car C and carbureter K, placed on the car and suitably connected with the burners thereof, of the blower E, the air-conducting pipe *f*, leading from the latter to the carbureter, and the steam-pipe L, leading from the boiler, and having a coil, N, located on the car, beneath or contiguous to a coil, H, of the air-pipe, and the flexible hose-section and detachable couplings *g* of said pipes *f* L, all as shown and described, and operating as and for the purpose specified.

JACOB WEART.

Witnesses:

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