

G. K. DEARBORN.

Car Heater.

No. 34,280.

Patented Jan. 28, 1862.

Fig. 1

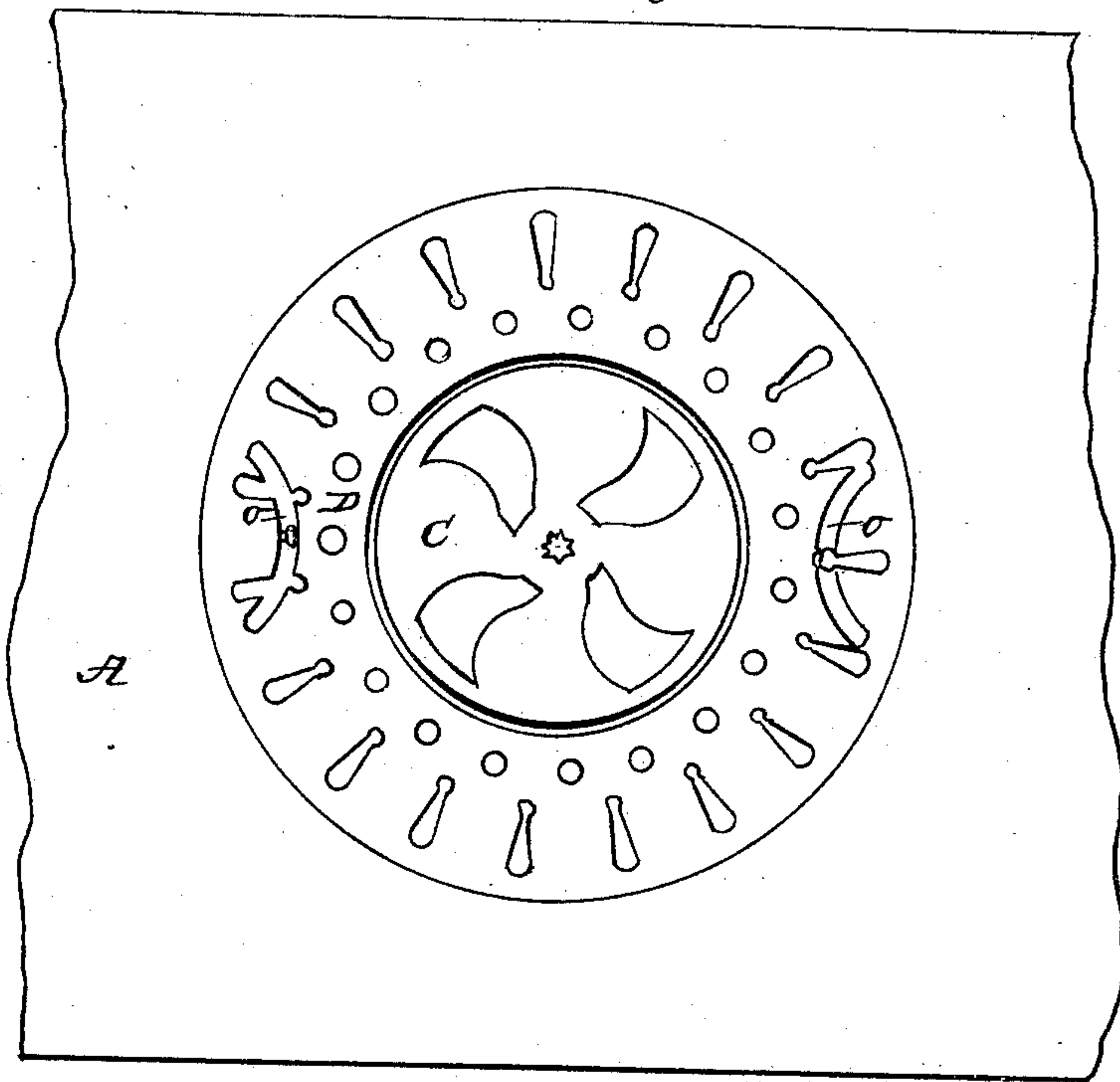
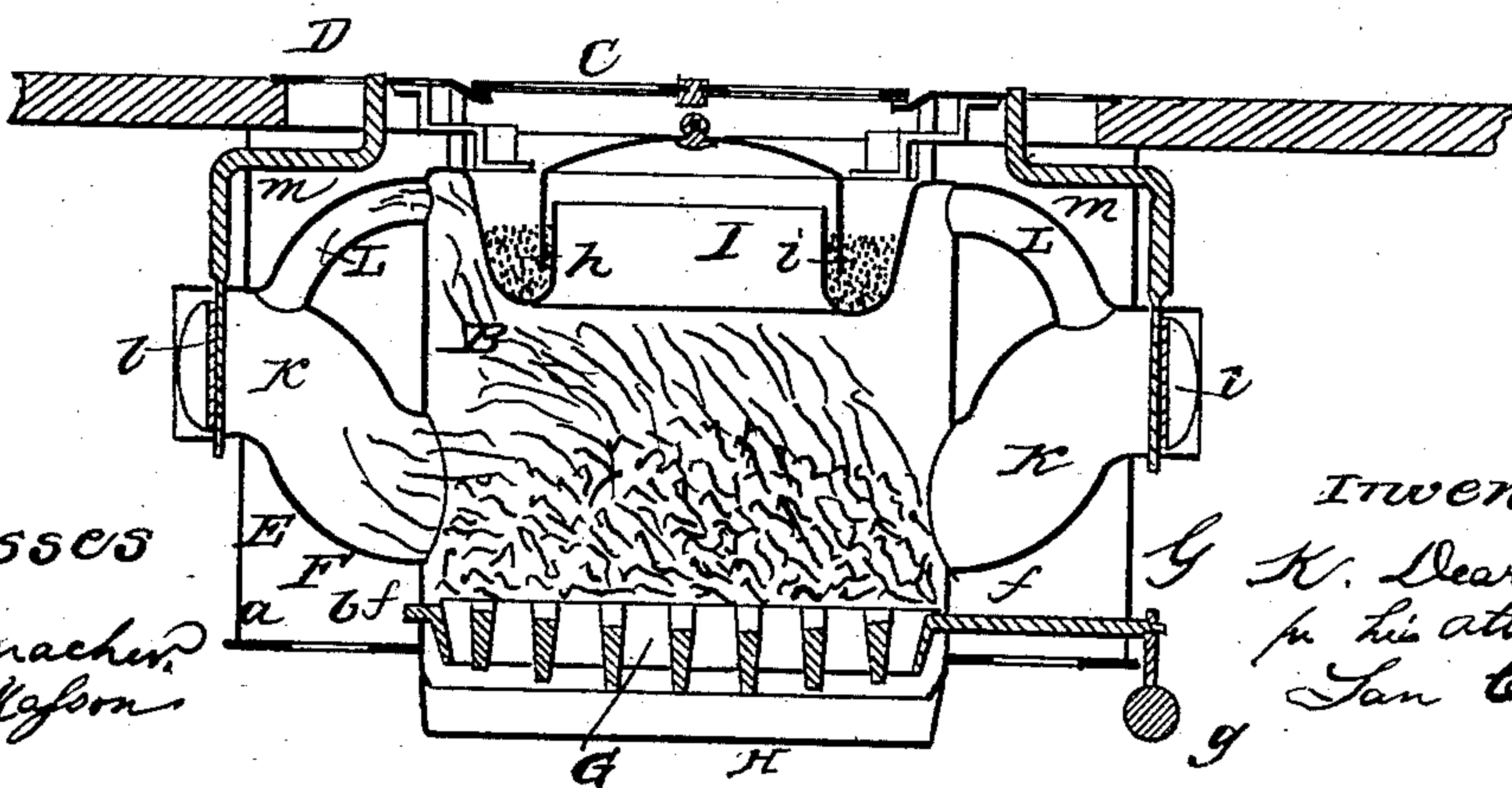


Fig. 2



Witnesses
H. C. Fickelmaier
Edmund Hefron

Inventor
G. K. Dearborn
per his attorney,
Sam Lee

UNITED STATES PATENT OFFICE.

G. K. DEARBORN, OF ABINGTON, ASSIGNOR TO SAMUEL T. TAPLEY, OF
CHELSEA, MASSACHUSETTS.

IMPROVEMENT IN HEATERS FOR PASSENGER-CARS.

Specification forming part of Letters Patent No. **34,280**, dated January 28, 1862.

To all whom it may concern:

Be it known that I, G. K. DEARBORN, of Abington, in the county of Plymouth and State of Massachusetts, have invented certain Improvements in Stoves or Furnaces for Heating Passenger Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a plan; Fig. 2, a vertical section.

My present invention consists in an improved furnace or stove for heating passenger railway-cars, which I will proceed to describe in such manner that others may understand and use my invention.

In the said drawings, A represents the floor of the car, from the under side of which is suspended a furnace or stove B, an opening in the floor being commanded by a register C and perforated plate or grating D. An outer casing E, which surrounds the furnace B, forms with a bottom plate *a* an air-chamber F between it and the furnace. A series of openings *b* in the bottom plate admit air to this chamber, which, after being heated by contact with the walls of the furnace, passes up through the grating D to the interior of the car.

The furnace has a circular grate G, pivoted on rods *f*, passing through the walls of the furnace and extending at one end through the outer casing E, where it is operated by a handle *g*. An ash-pan H is hung below the grate, being hinged on one side to the bottom of the furnace.

The top of the furnace is formed, as shown in the drawings, with a gutter *h* around the

opening I, to receive sand *i*, into which the lid *k* is set. Draft pipes or flues K open through the outer casing E—one toward each end of the car—which are commanded by dampers *l*, operated by rods *m*, which project up through slots *o* in the grating D. I have found in practice a tendency of the gas and smoke from the burning fuel to collect in the top of the furnace, so that when the lid *k* is removed for the purpose of replenishing the fuel the gas escapes into the car. To remedy this inconvenience, I have attached to each draft-pipe K an auxiliary pipe or flue L, which makes a communication from the draft-pipe to the upper part of the furnace, by which the gas is carried off.

The above-described furnace is particularly applicable to street-railway cars, where the small amount of available space on the floor does not admit of the employment of an ordinary stove. For the purpose of kindling with more rapidity, or of heating up rapidly when the cars are stationary, the ash-pan may be slightly dropped, or it may be perforated with small holes to admit a portion of air from beneath.

What I claim as my invention, and desire to secure by Letters Patent, is—

The furnace for railway and street cars, constructed substantially as described, with the flues K and auxiliary flues, said furnace being arranged under the floor of the car and operating in the manner substantially as set forth.

G. K. DEARBORN.

Witnesses:

THOS. R. ROACH,
P. E. TESCHEMACHER.