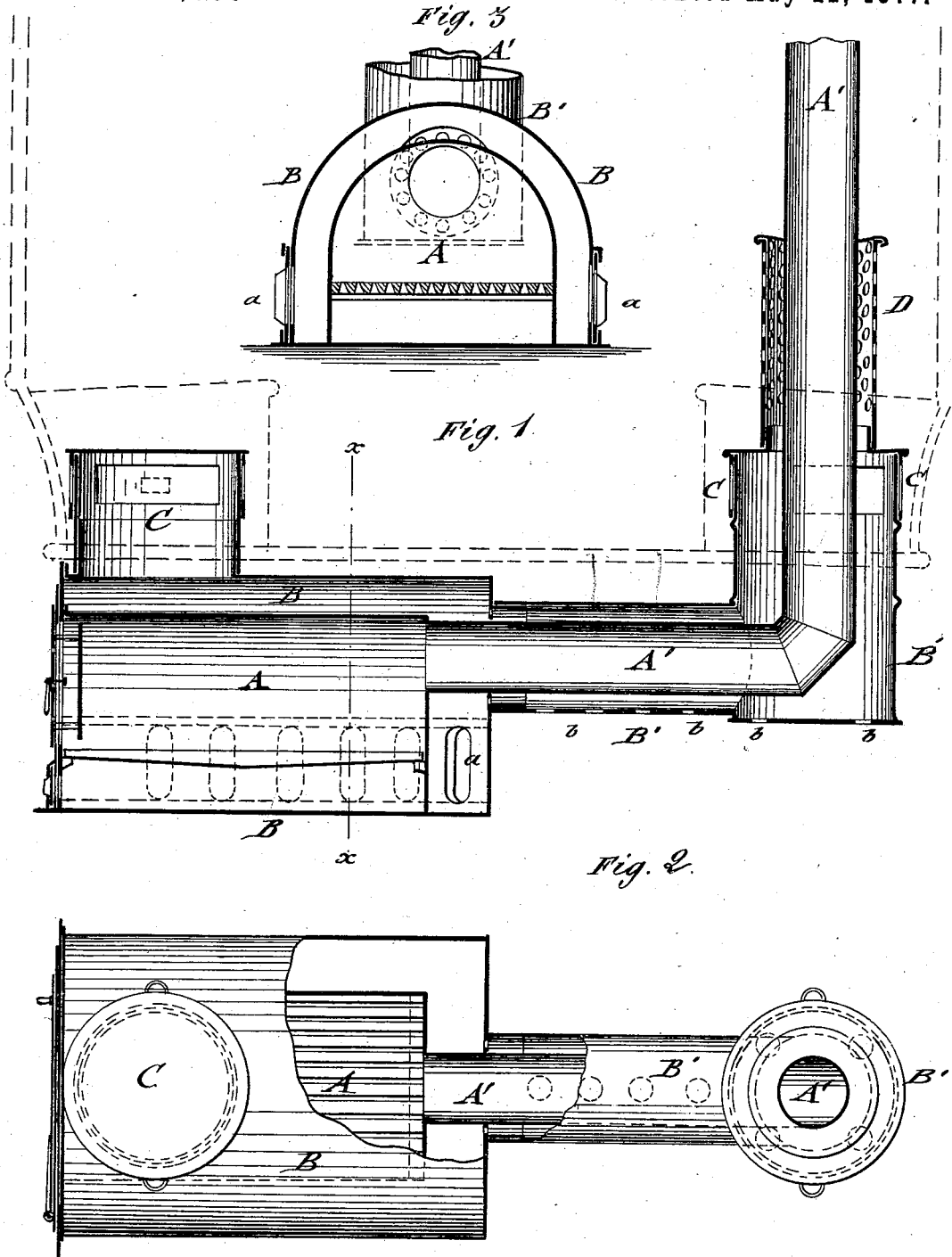


E. O. HUNTINGTON.  
CAR-HEATER.

No. 191,056.

Patented May 22, 1877.



WITNESSES:

*C. Neveux*  
*J. H. Scarborough*

INVENTOR:

*E. O. Huntington*  
BY *Munn & Co.*

ATTORNEYS.

# UNITED STATES PATENT OFFICE.

EDGAR O. HUNTINGTON, OF SAGINAW CITY, MICHIGAN, ASSIGNOR TO  
HIMSELF AND SANFORD S. PERKINS, OF SAME PLACE.

## IMPROVEMENT IN CAR-HEATERS.

Specification forming part of Letters Patent No. **191,056**, dated May 22, 1877; application filed  
March 24, 1877.

*To all whom it may concern:*

Be it known that I, EDGAR O. HUNTINGTON, of Saginaw City, in the county of Saginaw and State of Michigan, have invented a new and Improved Car Heater, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a vertical longitudinal section of my improved car-heater; Fig. 2, a top view with parts cut out; and Fig. 3, a vertical transverse section of the same in line *xx*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention relates to that class of car-heaters which are suspended below the bed-frame of the car and charged from the outside of the same; and the invention consists of a stove or furnace surrounded by a casing or jacket, to which air is supplied through side registers, to be heated up and transmitted, through drums with registers, to the interior of the car.

In the drawing, A represents a common furnace, which is suspended at the bottom of the car and charged with fuel from the outside, the door being locked in such a manner as to close without danger of opening in case of accidents.

The furnace A is provided with a draft-register below the door, in the usual manner, and with an ash-pit below the grate.

The gases of combustion are conducted through a pipe, A', backward and upward through the car and out at the top of the same. The furnace A is surrounded by a casing or jacket, B, of suitable metal, that forms an air-space around the furnace and receives the air through side registers *a*.

The jacket B extends by an encircling pipe, B', around the smoke-conducting pipe A', so as to utilize the heat of the smoke in its outward passage, the pipe B' having suitable air-inlet holes *b*, that keep up the regular supply of air.

The air is heated up in the casing B and pipe B', and conducted to the interior of the car by drums C, which pass through bottom apertures of the car, and have registers at the upper ends to regulate the discharge of air. One drum, C, is arranged above the furnace below the seat, the other at the opposite side of the car at the end of pipe B'.

The drum C, that is arranged around the stove-pipe A', is provided with a perforated distributing-cylinder, D, that is seated on the drum, and serves also as a guard to the stove-pipe. The cars may, by this arrangement, be heated in convenient manner from the outside, without requiring the carrying of fuel and charging of the stove from the inside.

The heat may be regulated as required by turning the registers of the drums, a continuous supply of fresh heated air being provided thereby.

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

The case B, with apertures *a*, and the pipe B', with apertures *b*, each provided with a drum, C, in combination with a car-furnace, A, having pipe A', as and for the purpose specified.

EDGAR O. HUNTINGTON.

Witnesses:

PETER LANE,  
ALBERT TRASK.