

No. 742,559.

PATENTED OCT. 27, 1903.

G. C. BAILEY.  
HEATER FOR LOCOMOTIVE ENGINE CABS.

APPLICATION FILED JUNE 16, 1902.

NO MODEL.

FIG. 1.

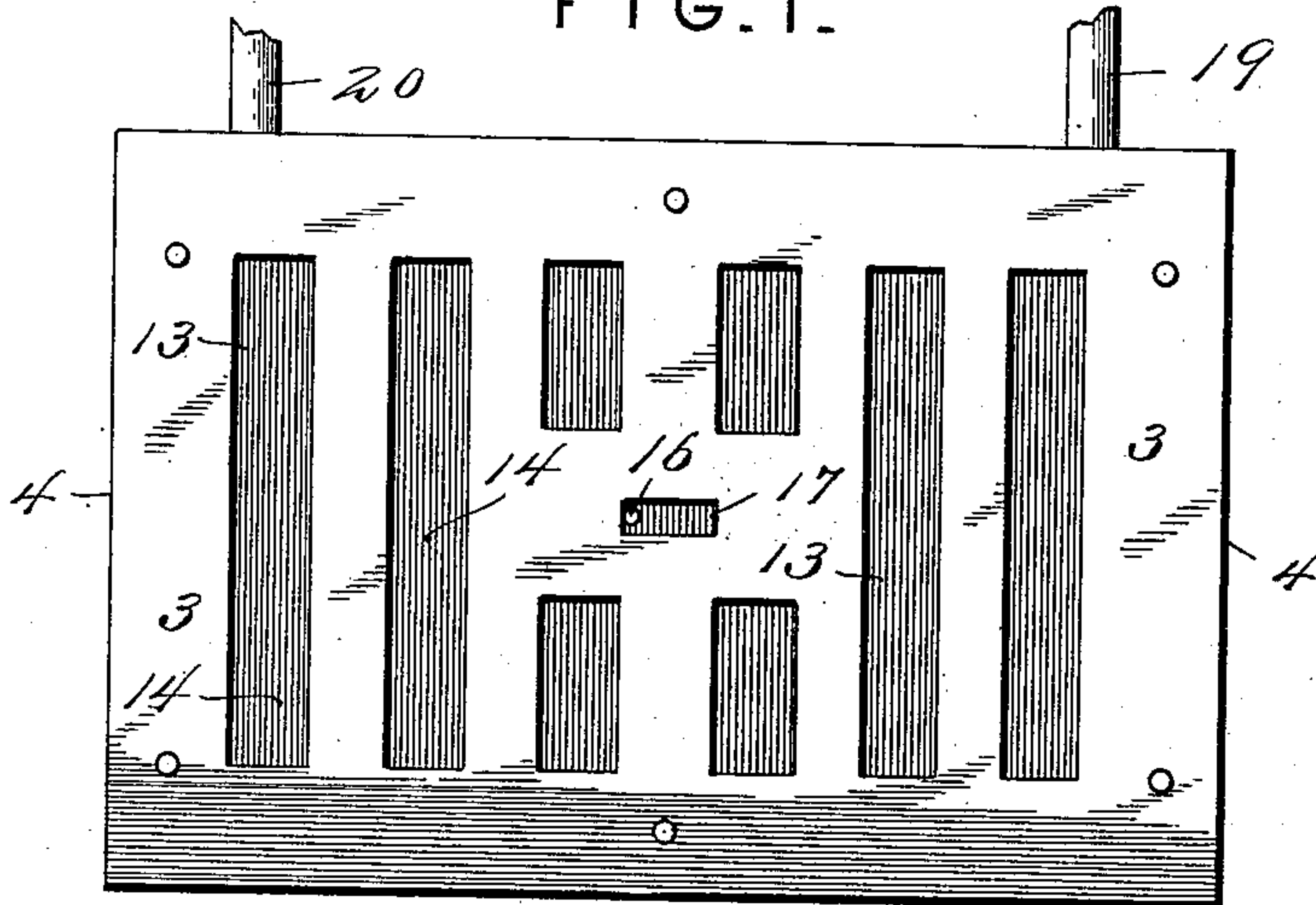


FIG. 2.

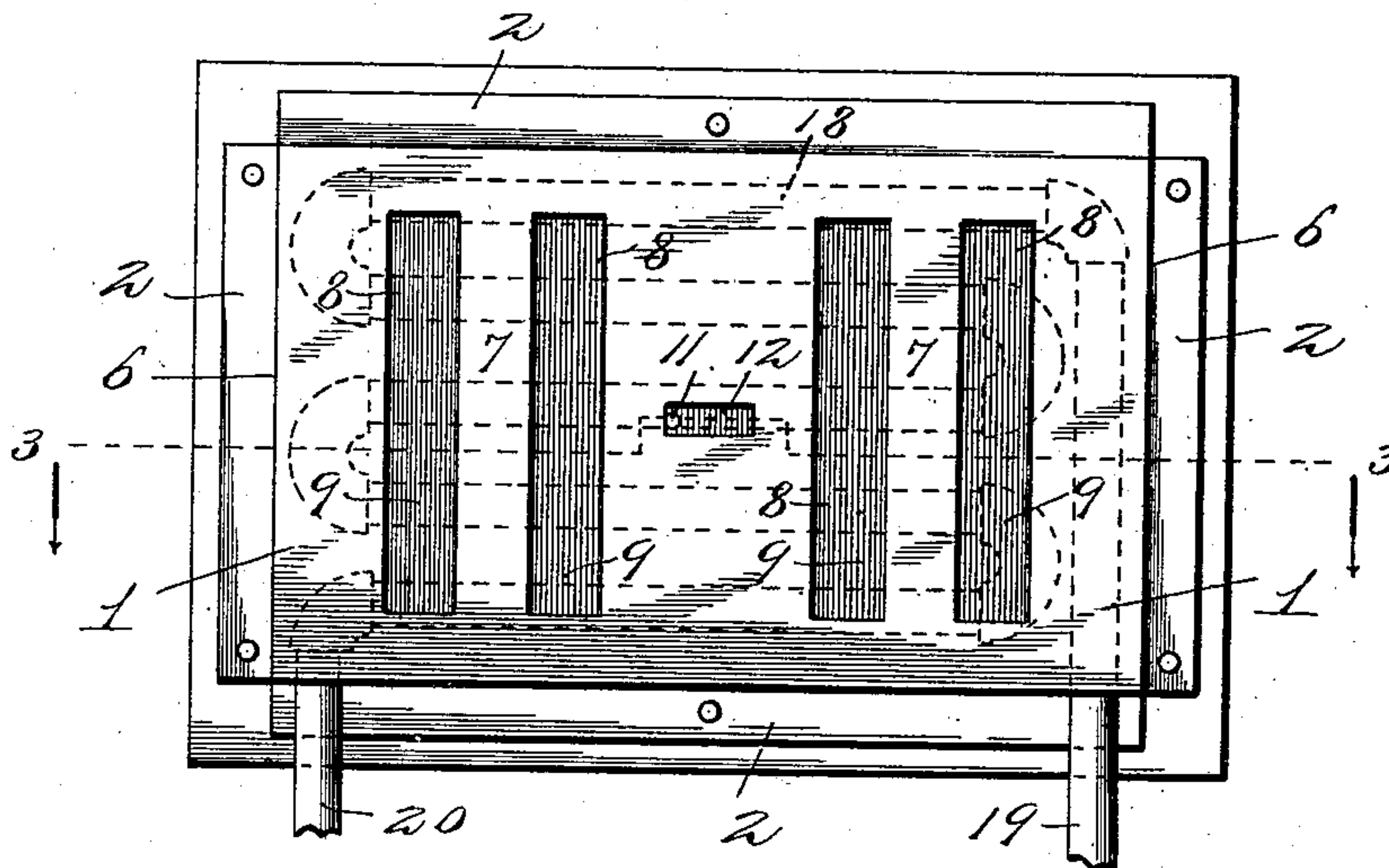
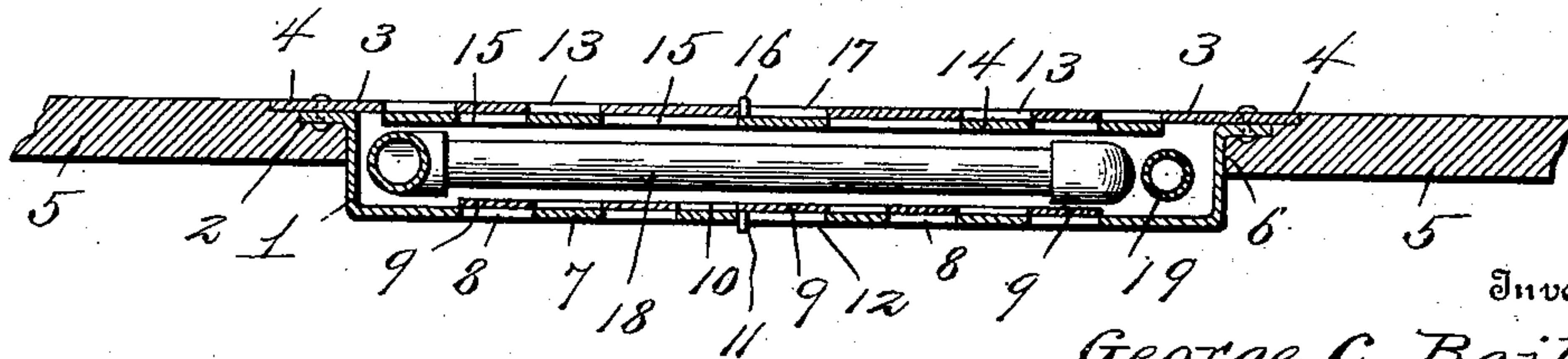


FIG. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

GEORGE C. BAILEY, OF BLUEFIELD, WEST VIRGINIA.

## HEATER FOR LOCOMOTIVE-ENGINE CABS.

SPECIFICATION forming part of Letters Patent No. 742,559, dated October 27, 1903.

Application filed June 16, 1902. Serial No. 111,963. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE C. BAILEY, a citizen of the United States, residing at Bluefield, in the county of Mercer and State of West Virginia, have invented new and useful Improvements in Heaters for Locomotive-Engine Cabs, of which the following is a specification.

This invention relates to a heater for a locomotive-engine cab; and the object of the same is to provide a simple and effective heating attachment which is disposed in the floor of the cab and embodying a steam-coil inclosed in a metallic casing or box having upper and lower openings and adapted for use in warming the feet of firemen and engineers in cold weather and also for ventilating purposes in warm weather.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a top plan view of a heater embodying the features of the invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a longitudinal vertical section on the line 3-3, Fig. 2, and a portion of the floor of an engine-cab.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The improved device comprises a thin metal box 1, having an upper surrounding flange 2, to which is secured a top plate 3, the said plate terminally extending beyond the edges of the flange 2 and with the latter is seated in a suitable recess 4, formed in the floor 5 of an engine-cab around an opening 6, through which the box 1 depends, the said plate 3 being flush with the upper surface of the floor 5. The bottom 7 of the box 1 is formed with a series of transversely-extending openings 8 of elongated form, and thereover is a damper-plate 9, having openings 10 to coincide with the openings 8, the said damper-plate, at about the center thereof, having also a depending pin or stud 11, which projects through a slot 12 for convenience in shifting the plate 9 to open and close the same in relation to the openings 8 in the bottom 7 of the box. The box 1 may be formed of suitable sheet metal, in view of the fact that the weight-pressure

is not directly imposed thereon; but the plate 3 is of a stronger nature and is adapted to sustain the weight of an engineer or fireman without liability of breakage. The said plate 3 is also formed with a series of transversely-extending slots 13, and slidingly held in close relation to the under side thereof is a damper-plate 14, with openings 15 therein to coincide with the openings 13. The damper-plate 14 is also provided at its center with an upwardly-projecting stud or pin 16, located in a slot 17 for convenience in adjusting the said damper-plate and controlling the open and closed condition of the slots 13.

Suitably held within the box 1, between the bottom of the latter and the plate 3, is a horizontally-disposed coil 18 of a pipe having a suitable dimension, the number of the coils of the pipe depending upon the general proportions or dimensions of the heater. From the coils supply and exhaust pipes 19 and 20 project outwardly through the under side of the box 1 and are respectively connected to a suitable steam-supply source and an exhaust, and it will be understood that these supply and exhaust pipes will be provided with suitable valves to control the admission of steam to the coil and the release of the same from the latter.

In the use of the device for heating purposes the steam is admitted to the coil and circulates through the latter, and the upper damper-plate 14 is shifted so as to cause the openings or slots 15 therein to coincide with the slots 13 as much as desired, it being understood that the slots 13 can be opened wholly or partially, in accordance with the amount of heat desired and the condition of the atmosphere.

When the device is used for heating purposes and the damper-plate 14 is opened, the lower damper-plate 9 remains closed to thereby cause the heat from the coil to pass upwardly through the plate 3 into the engine-cab. In warm weather when heat is not required in the engine-cab steam is shut off from the coil 18, and both damper-plates 9 and 14 are opened to permit air to circulate upwardly through the box and pass into the engine-cab, thus providing an efficient ventilator with obvious advantages.

The improved heater is simple and effect-



ive in its construction and efficient in operation for either heating or ventilating purposes and can be applied to the floor of an engine-cab at a comparatively small cost.

5 It is obvious that changes in the proportions, form, dimensions, and minor details may be resorted to without departing from the spirit of the invention.

Having thus fully described the invention,  
10 what is claimed as new is—

The combination with the floor of an engine-cab having an opening therethrough, of a box inserted through and secured in the said opening and depending below the said cab-  
15 floor, the bottom of the box having a series of openings therethrough, a sliding damper-plate held on the upper surface of the bottom of the box and operative from the under side

of the latter, a top plate secured over the box flush with the upper surface of the cab-floor 20 and also having a series of openings therein, a damper-plate slidingly held against the underside of the top plate and operative from the upper portion of the latter, whereby the opening in the top plate and bottom of the box 25 may be simultaneously uncovered to permit ventilation of the interior of the cab or the openings in the bottom of the box remain closed and those in the plate uncovered, and a heating device inclosed within the box. 30

In testimony whereof I affix my signature in presence of two witnesses.

GEORGE C. BAILEY.

Witnesses:

C. A. BRADSHAW,  
S. D. MILLER.