

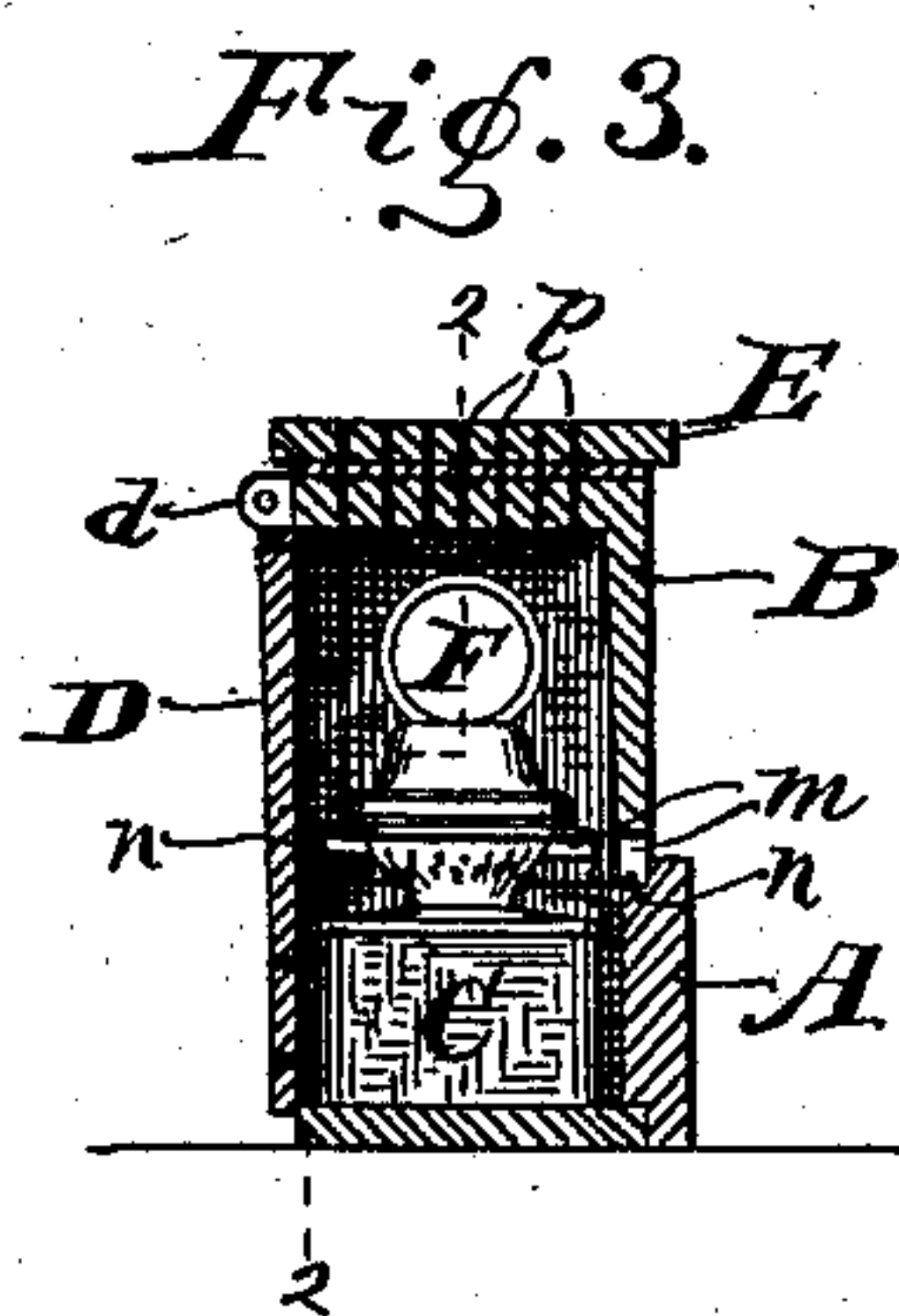
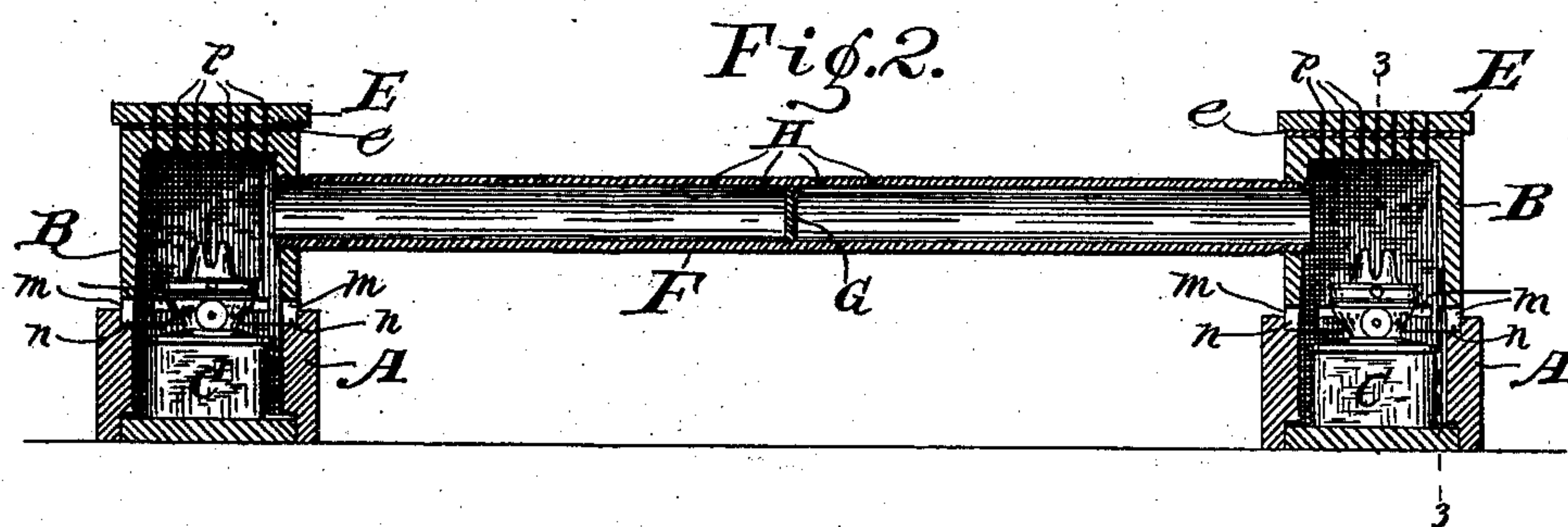
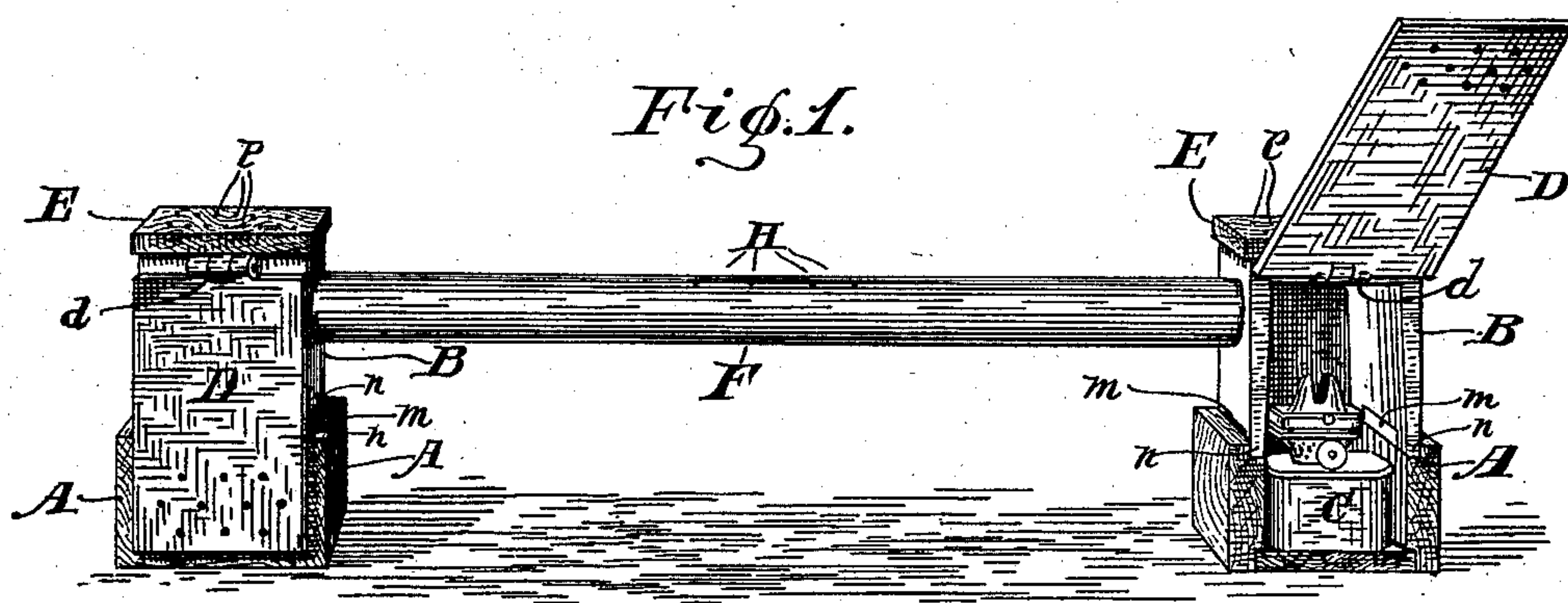
(No Model.)

R. HARTMAN & J. P. FROW.

FOOT WARMER.

No. 372,145.

Patented Oct. 25, 1887.



Witnesses.

Charles Leonard.  
A. A. McInturn.

Inventors:  
Robert Hartman,  
J. P. Frow,  
By Joseph A. McInturn  
Attorney.

# UNITED STATES PATENT OFFICE.

ROBERT HARTMAN AND JAMES PATTON FROW, OF CONNERSVILLE,  
INDIANA.

## FOOT-WARMER.

SPECIFICATION forming part of Letters Patent No. 372,145, dated October 25, 1887.

Application filed January 24, 1887. Serial No. 225,396. (No model.)

*To all whom it may concern:*

Be it known that we, ROBERT HARTMAN and JAMES PATTON FROW, citizens of the United States, residing at Connerville, in the county of Fayette and State of Indiana, have invented certain new and useful Improvements in Foot-Warmers for all Kinds of Vehicles; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention is designed for use in vehicles of all kinds, and the object is to furnish heat to the feet of the occupants in cold and wintry weather.

In the accompanying drawings, Figure 1 is a perspective view of our device removed from the vehicle. Fig. 2 is a transverse vertical section through the line 2 2, as shown in Fig. 3; and Fig. 3 is a vertical cross-section through the line 3 3, as seen in Fig. 2.

Similar letters refer to similar parts throughout the several views.

A A is the base, and consists of two boxes, (preferably of wood,) each having a bottom and three sides. The top of each box is open, and communicates directly with the superimposed box B, and the fronts are open to allow a lamp, C, to be placed in each box. The superimposed boxes B (preferably made of cast-iron) have a top and three sides. The front open sides of the boxes B are provided with doors D, which are hinged at their tops to the lugs d, and drop down so as to cover the open sides of both of the boxes A and B, thus forming, with the two boxes A and B, chambers that are completely inclosed, and in which the lamps C are placed. At each of the four lower corners of the superimposed boxes B are downwardly-projecting lugs, n, designed to hold the boxes B and A sufficiently apart to form a ventilating-aperture, m, on each of the three sides of each of the boxes.

The lids D have a number of perforations in their lower halves as ventilators to give proper draft to the lamps.

E are wooden caps on each of the boxes B, and to avoid combustion from the heat of the lamps a sheet, e, of non-conductive material, as asbestos, is placed between the top of the box B and the cap.

The two boxes B are connected by a metal tube, F, which screws into threaded holes in the sides of the boxes. To avoid communication between the two chambers, which is not desirable, a partition, G, is placed in the tube midway between the two ends, and outlets or perforations H are made through the tube on each side of the partition. This causes the draft from the lamps to pass through the tube, carrying the heat with it and heating the tube. This tube serves as a foot-rest, and, being heated by the lamps, will keep the feet comfortable and warm. To add to the draft of the lamps, a number of perforations, p, are made through the top of the boxes B and the cap E.

In practice our device is placed in the bottom of vehicles in front of the occupants and within easy distance, so as to serve as a convenient rest for the feet.

Having thus fully described our invention, what we claim as new, and wish to secure by Letters Patent, is—

The base A, the superimposed boxes B, with the lugs n, the lid D, the cap E, and asbestos sheet, in combination with the tube F, having the partition G and perforations H, and the lamps C, as described.

In testimony whereof we affix our signatures in presence of two witnesses.

ROBERT HARTMAN.  
JAMES PATTON FROW.

Witnesses:

AUGUSTUS M. SINKS,  
HERSCHEL M. HALSTEAD.