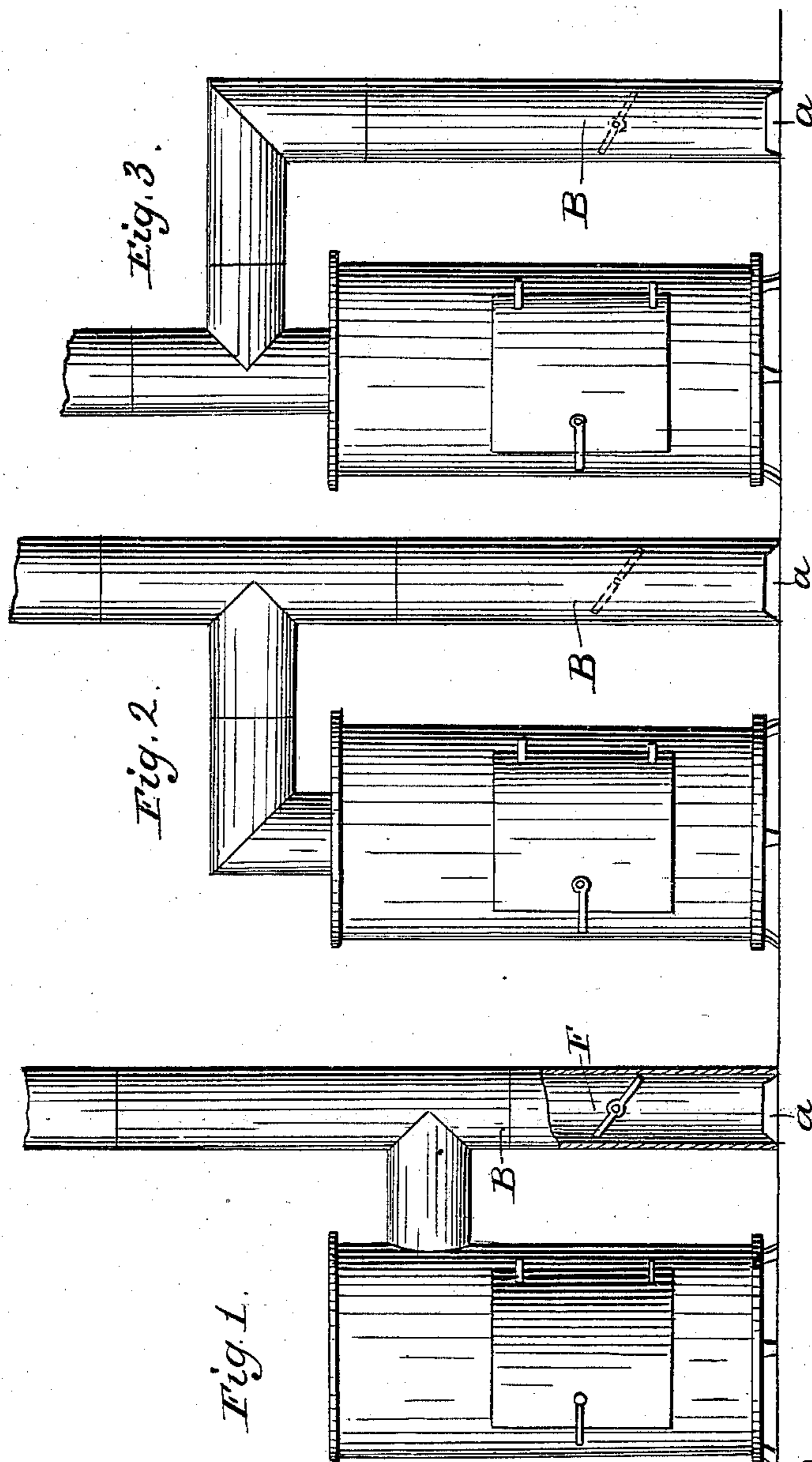


A. A. WILDER.  
Ventilating Stove Pipe.

No. 58,159.

Patented Sept. 18, 1866.



Inventor:

A. A. Wilder

Munn & Co

Attorneys

Witnesses:

J. W. B. Drington  
Wm. Trevin

# UNITED STATES PATENT OFFICE.

A. A. WILDER, OF DETROIT, MICHIGAN.

## VENTILATING-PIPE FOR STOVES AND HEATERS.

Specification forming part of Letters Patent No. 58,159, dated September 18, 1866.

*To all whom it may concern:*

Be it known that I, A. A. WILDER, of Detroit, Wayne county, State of Michigan, have invented a new and Improved Ventilator; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

The present invention relates to a new and improved ventilator, especially adapted to railway-cars, although it can be employed with advantage in other places; and it consists in attaching to the ordinary exit-pipe of a stove or other heating apparatus a supplementary pipe extending to, or nearly to, the floor of the car or room in which the stove may be placed, suitable openings being made in the said pipe at or near the floor, to allow a current of air from the room or car to pass up through the same, and thus carry off into the exit or smoke pipe of the stove all the cold air as well as the carbonic-acid gas at or near the floor, whereby not only is an equalization of the heat in the car or room secured, but a thorough ventilation produced.

In accompanying plate of drawings my improvement is illustrated, Figure 1 being a front view of a stove or heating apparatus with my improvements applied in one form; Figs. 2 and 3, both similar views to Fig. 1, but showing, respectively, different forms of application.

Similar letters of reference indicate like parts.

In Fig. 1 of the drawings the exit or smoke pipe of the stove is shown as leading from one side of the same, and then having the form of an elbow-joint extending upward to any suitable outlet therefor, the supplementary pipe B, in this case, extending from the elbow-joint of the stove-pipe, with which, at that point, it communicates, down to the floor of the car or room, as the case may be, upon which, at its lower end, it rests with portions *aa* cut out to allow the lower strata of air in the car or room to enter the same.

By this means it is obvious that the upward current of hot air in the stove to its exit or chimney must necessarily cause a current of air to be established from the bottom of the car or room upward through my supplementary pipe into the stove-pipe, thereby carrying off all the cold air contained in the car, as well as the carbonic-acid gas, producing not only an equalization of the heat, but a thorough ventilation of the car or room.

F, a damper, arranged in supplementary pipe B, which, when the fire in the stove or heating apparatus to which the pipe A is secured is being kindled, is to be closed, thus shutting off the communication between the stove-pipe through the supplementary pipe A and the floor of the room, this damper being arranged as with ordinary stoves and other dampers.

In Fig. 2, in lieu of the exit-pipe leading from the stove or heating apparatus at its side, it extends from the top, and then, with two elbow-joints, up and to the outlet therefor, my supplementary pipe in this case, as well as that shown in Fig. 1, extending from the said stove-pipe down to the floor of the car or other place communicating with both, as explained.

In Fig. 3, which is the mode preferred for railway-cars, the smoke-pipe of the stove leads directly from the center of its top to the outlet therefor, my supplementary pipe in this case communicating with the same by an elbow-joint, E, at its upper end, the operation in this, as well as in Fig. 2, being the same as that described for the arrangement shown in Fig. 1, and therefore needing no further explanation herein.

I claim as new and desire to secure by Letters Patent—

The arrangement of the supplementary pipe B with its portion *aa*, as described, with the elbow-joint of a stove-pipe, combined and operating in the manner and for the purpose specified.

A. A. WILDER.

Witnesses:

JOSEPH KUHN,  
M. G. PAYMENT.