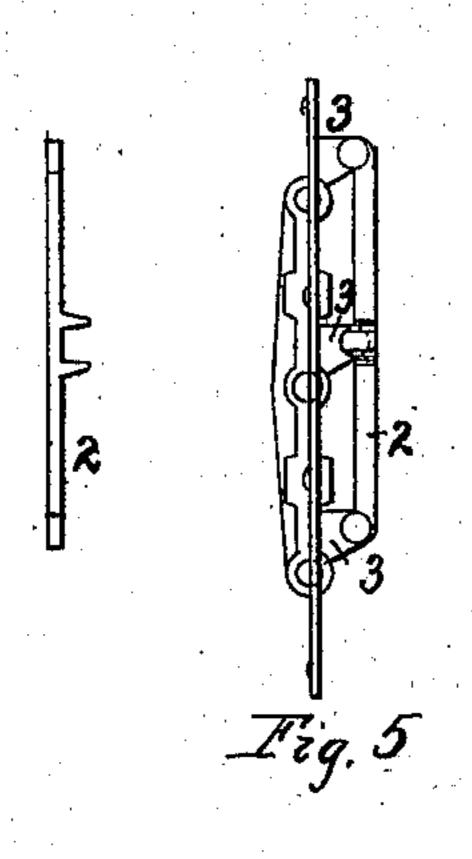
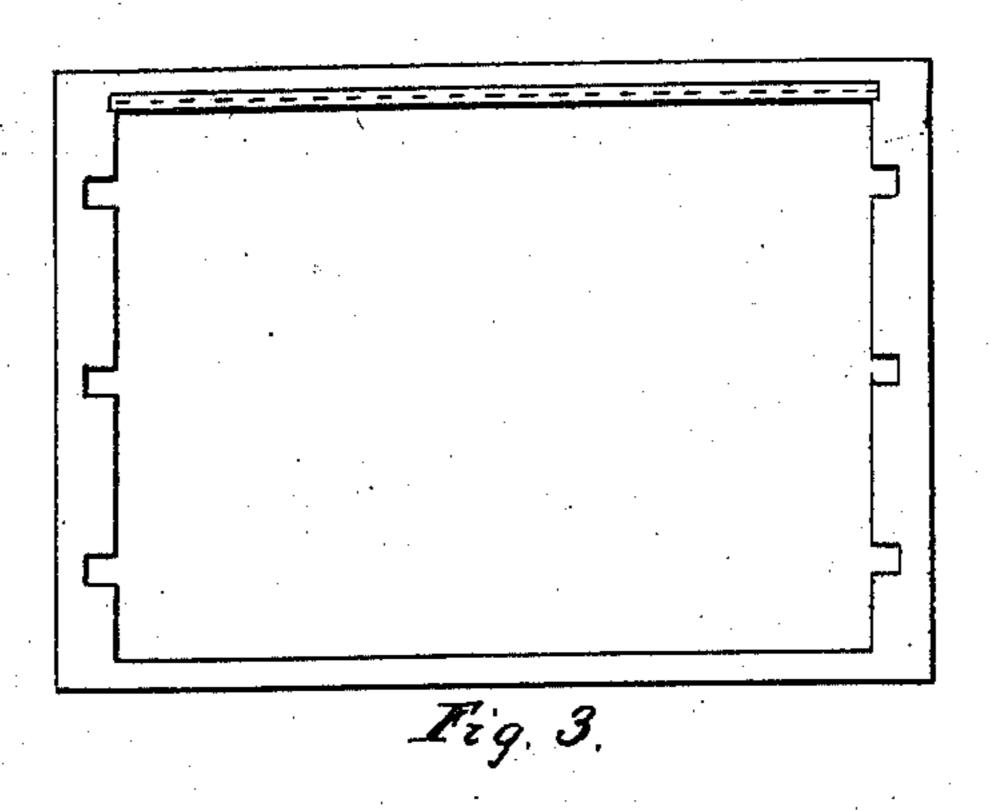
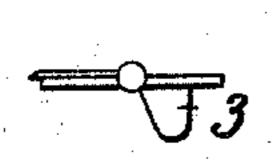
W. G. CREAMER. RAILROAD CAR VENTILATOR.

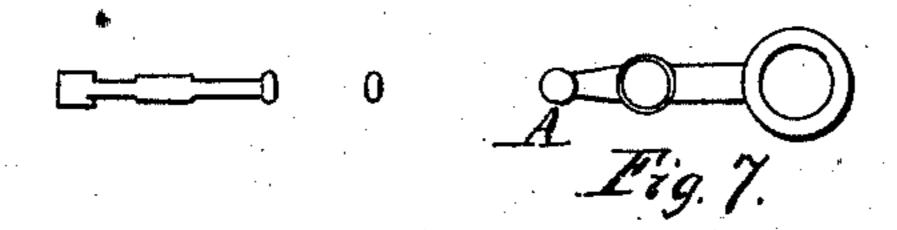
No. 89,974.

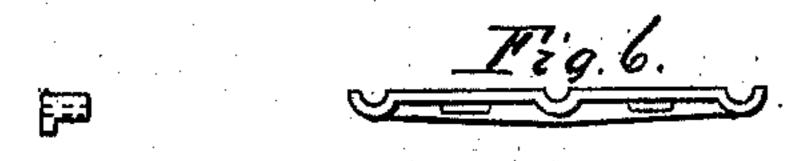
Patented May 11, 1869.

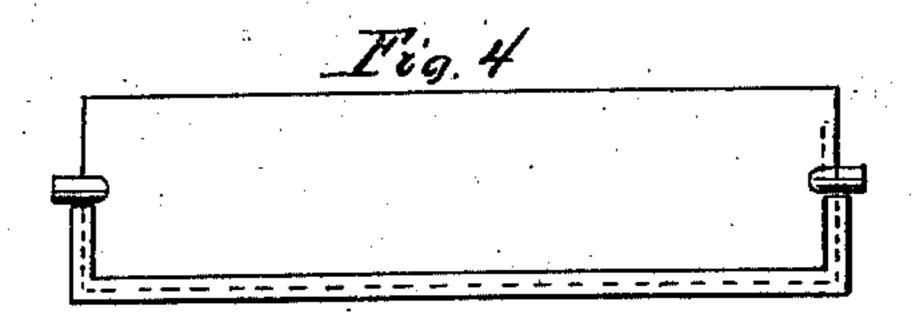


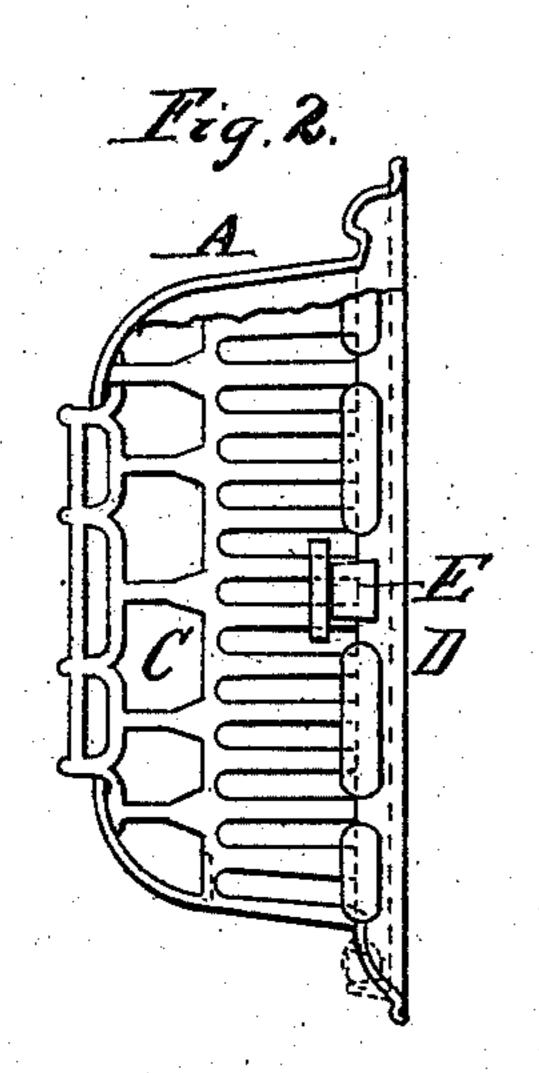


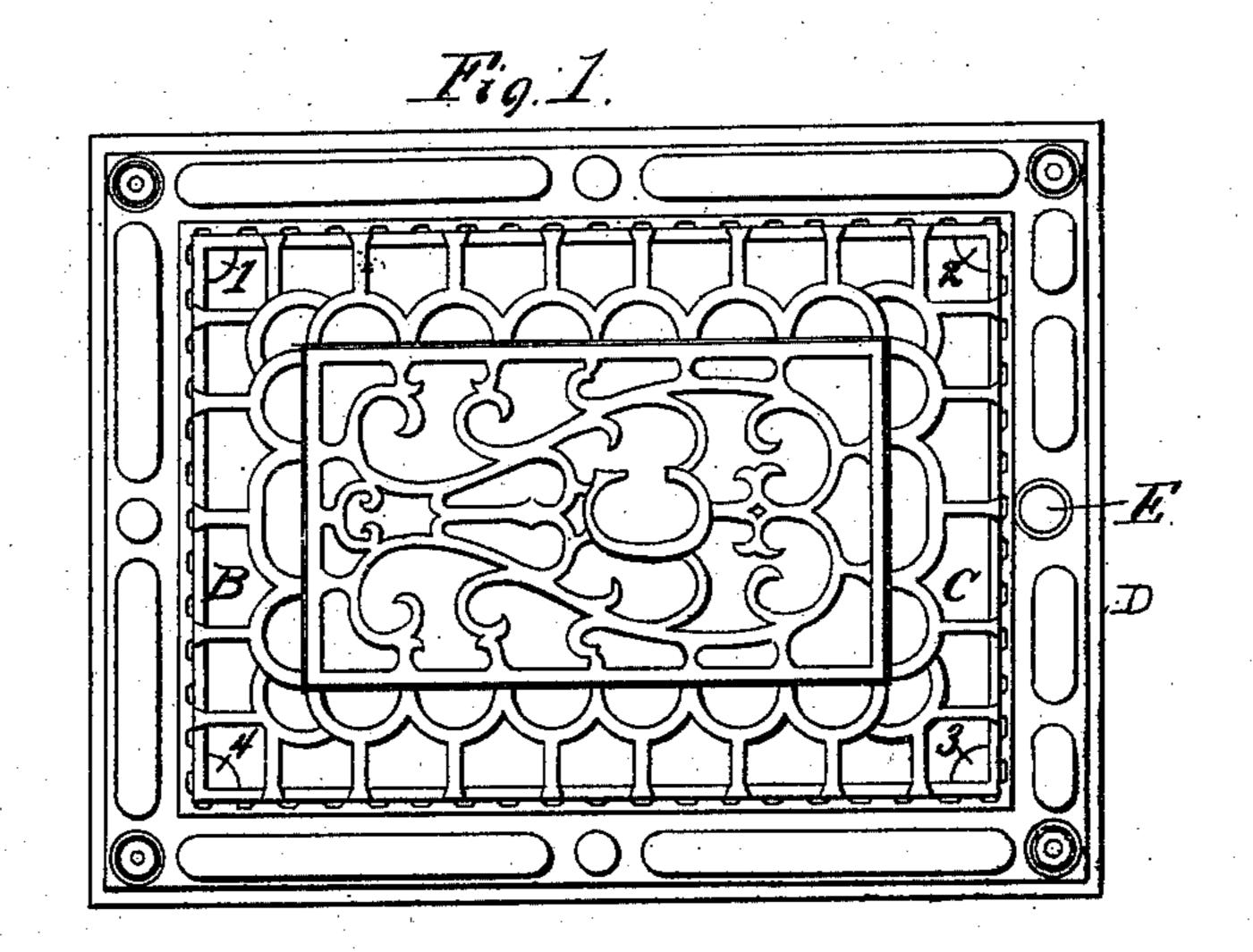












Witnesses.

H. M. Mileosson

Inventor Muffleance

Anited States Patent Office.

WILLIAM G. CREAMER, OF BROOKLYN, NEW YORK.

Letters Patent No. 89,974, dated May 11, 1869.

RAILROAD-CAR VENTILATOR.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, WILLIAM G. CREAMER, of the city of Brooklyn, county of Kings, State of New York, have invented a new and improved mode of constructing ventilating and hot-air registers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in constructing a register, or what is more commonly called ventilator, for the side of a railroad-car or the wall of a building, in such a way that the frame-work and valves and working-parts are all placed within the front plate of ventilator, making it convex.

It is often necessary that a number of registers are to be connected with the same pipe, as in the upright walls of a building where the walls and partitions are thin, and on the sides of railroad-cars, especially in the extension-part of the roof, which is often not more than one and a half inch thick. In many of these cases, the projection of the working-parts inside the wall or pipe seriously obstructs the flow of air to the other registers.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I make a projecting or convex casting, as shown in

the accompanying drawings, plates 1 and 2, plate 2 being a side view, which, at A, shows a partial section.

From B to C is the open-work for the passage of the air; from C to D it is closed.

I then make a frame, plate 3, and in this frame I fit blinds or valves, as shown at plate 4.

These blinds are fitted into the frame, plate 3, and connected together by a slat, plate 5, Figure 2, to the ears of each valve, Figure 3.

A cap, plate 6, is then fitted over the pivots of the blinds.

The whole frame-work of blinds is then fitted into casting, plate 1, by means of screws in each corner, Figures 1, 2, 3, and 4.

When the frame-work of valves or blinds is fitted in, a handle, plate 7, is fitted into the nipple E, plates 1 and 2.

The end of the handle, plate 7, letter A, takes into the connecting-slat, plate 5, fig. 2, and thus, by shifting back and forth, opens or closes the valves.

What I claim as my invention, is-

The construction of a ventilating-register, substantially as described, and for the purposes mentioned.

WM. G. CREAMER.

Witnesses:

H. M. CREAMER, F. A. WILCOXSON.