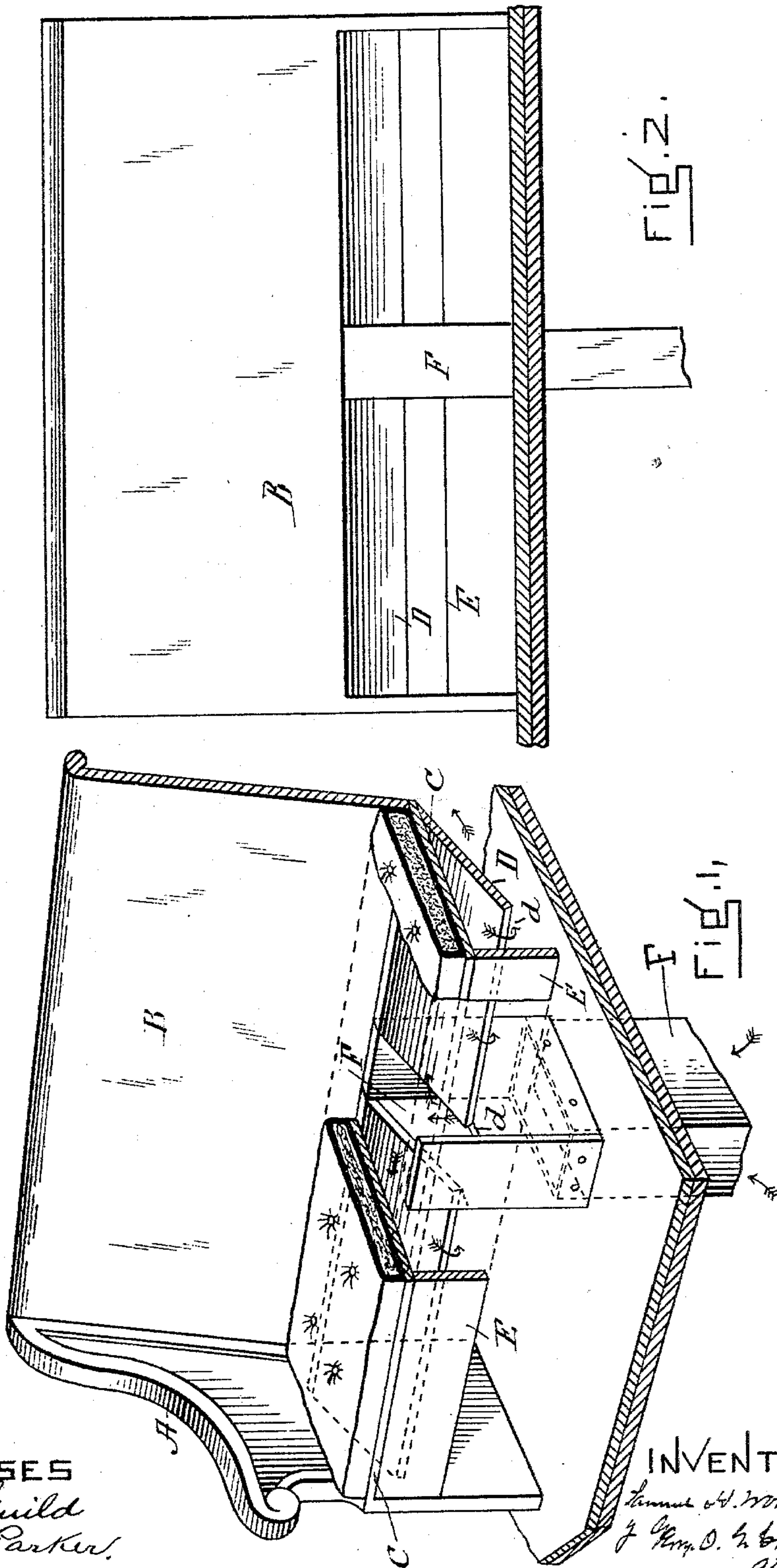


(No Model.)

S. H. WOODBRIDGE.
VENTILATING HALLS OR CHURCHES.

No. 597,826.

Patented Jan. 25, 1898.



WITNESSES

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att'y

UNITED STATES PATENT OFFICE.

SAMUEL H. WOODBRIDGE, OF BROOKLINE, MASSACHUSETTS.

VENTILATING HALLS OR CHURCHES.

SPECIFICATION forming part of Letters Patent No. 597,826, dated January 25, 1898.

Application filed March 24, 1896. Serial No. 584,710. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. WOODBRIDGE, of Brookline, in the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement in Means for Ventilating Halls or Churches, of which the following is a specification.

My improvement relates, mainly, to the construction of the pew or bench which is used for seating purposes; and it consists, primarily, in the placing beneath each one of a number (perhaps all) of the pews in a church of an air-duct which is connected with a suitable source of air-supply, this air-duct being preferably of a somewhat peculiar shape and having an opening such that the air will be sufficiently confined to cause the current to spread throughout the chamber and yet pass out at various points along its entire length and so escaping from a number of these ventilating-ducts located throughout the church will diffuse itself and keep the air in the church or hall fresh.

My invention will be understood by reference to the drawings, in which—

Figure 1 is a perspective view, partly in section, and Fig. 2 a rear view, of a portion of a pew embodying my invention.

The main portions of the pew are of ordinary construction—namely, the end piece A, the back B, and the seat C. The upper portion of the air-duct to which I have above referred is formed, preferably, by the under side of the seat C, which is made air-tight for the purpose. The lower side of this air-duct is formed by a wall D, which may be made of board or sheet metal and is preferably set at an angle, the front end of this lower wall D being somewhat lower than the rear portion, which is preferably attached to the under side of the seat. This lower wall D does not reach quite far enough forward to abut against the front board E of the pew, thus leaving a slight passage, perhaps an inch or less in width, out from which the air will pass. The front board E is preferably sufficiently long to drop somewhat below the front edge of the wall D, so that the air-currents will tend to flow out

from the opening *d*, formed between the front edge of the lower wall D of the duct and the front board E, and backward, so as to pass up by the back of the pew rather than the front, this being less objectionable to the occupants. The duct is connected with the air-supply by means, preferably, of a rectangular pipe F, the upper end of which is preferably shaped as shown in Fig. 1, this being a convenient way of connecting it with the duct.

While I prefer to construct the opening *d* as shown, it will be readily understood that the opening may be differently arranged or may be formed by perforations through the wall D or in a variety of ways, these openings, however, being so proportioned as to afford sufficient resistance to the incoming air through the pipe F to cause it to spread throughout the duct and properly diffuse itself, this being an important feature of my device.

The shape of the duct in cross-section is immaterial, the shape above described being preferable.

What I claim as my invention is—

1. An improved means for ventilating churches and halls consisting of a series of seats each provided with a horizontal air-duct running substantially its entire length, and provided with a constricted air-opening on its under side, the under outer wall of said air-duct sloping upwardly and rearwardly from the front of each of said seats, substantially as and for the purposes set forth.

2. In a ventilating-pew in combination with a connecting-pipe, a duct triangular in cross-section having a narrow opening extending for substantially its length along preferably its lowest portion, the vertical side adjacent to said opening extending down below said opening, as set forth.

In testimony whereof I have hereunto set my hand this 21st day of March, 1896.

SAMUEL H. WOODBRIDGE.

Witnesses:

GEORGE O. G. COALE,
EVA A. GUILD.