

No. 672,765.

Patented Apr. 23, 1901.

H. S. HART.  
REGISTER AND VENTILATOR.

(Application filed Jan. 3, 1901.)

(No Model.)

Fig. 1.

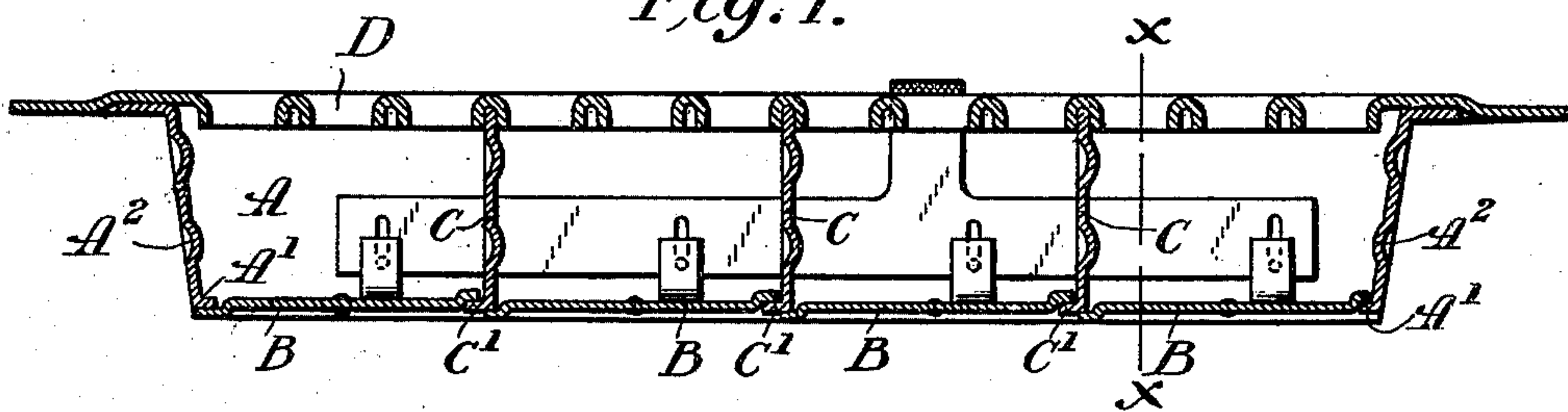


Fig. 2.

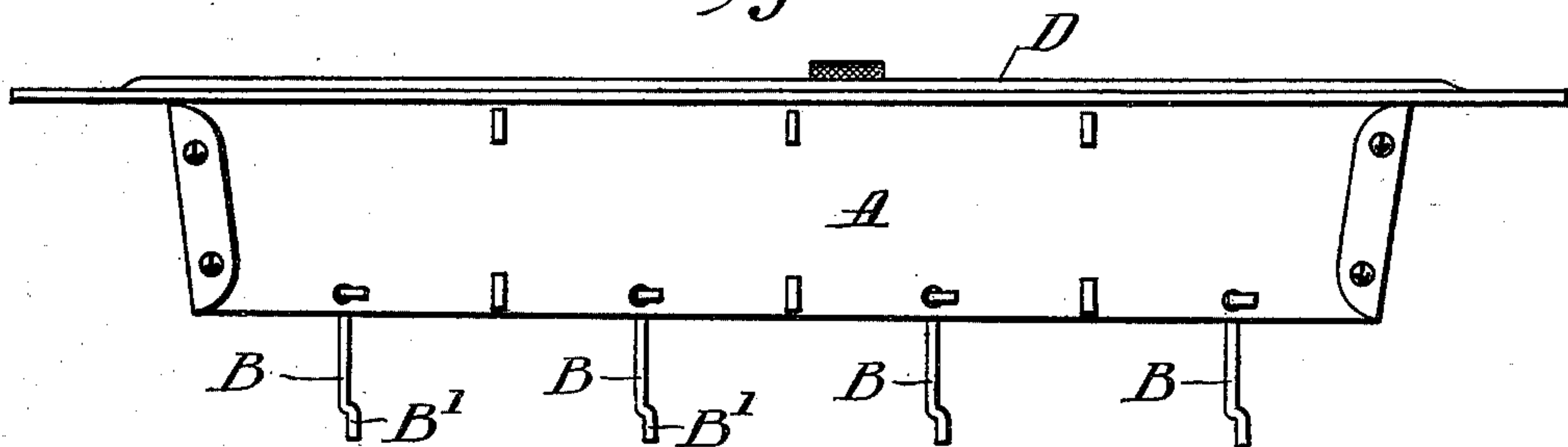


Fig. 3.

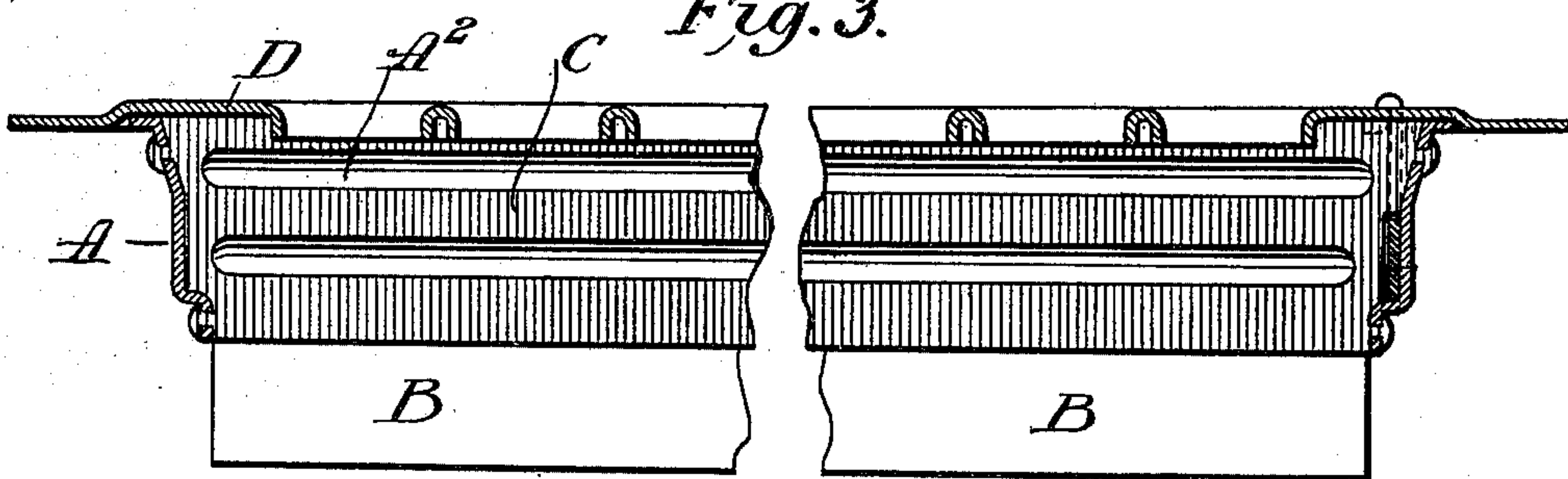
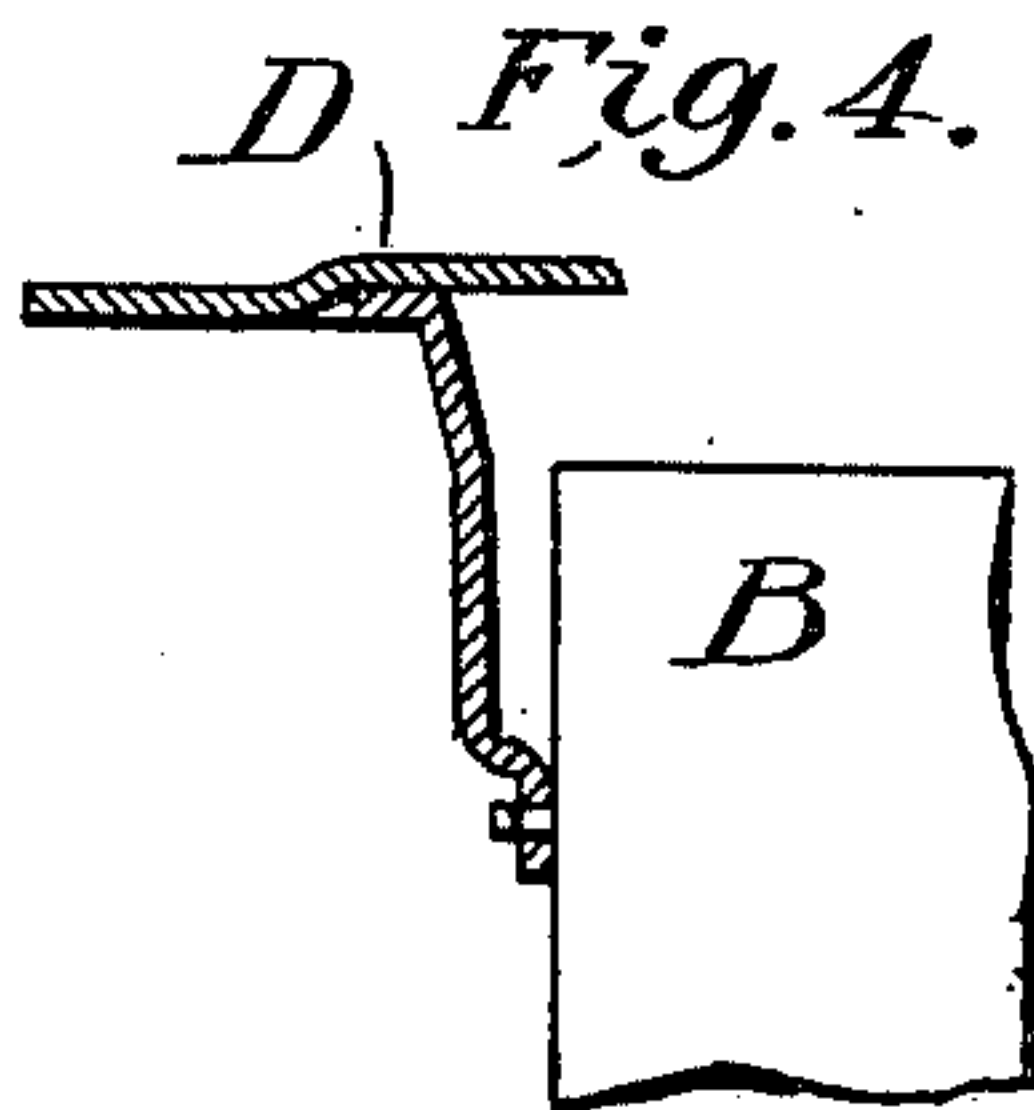


Fig. 4.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## REGISTER AND VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 672,765, dated April 23, 1901.

Application filed January 3, 1901. Serial No. 41,931. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD S. HART, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have invented certain new and useful Improvements in Registers and Ventilators, of which the following is a full, clear, and exact description.

My invention relates to registers and ventilators formed wholly or partly of sheet metal; and it consists in the construction of the same, as hereinafter pointed out.

My invention has for its object simplicity, economy, and strength of construction.

In the accompanying drawings, Figure 1 is a cross-section of a register or ventilator embodying my invention, the ventilating-slats being closed. Fig. 2 is an end view of said register, the ventilating-slats being open. Fig. 3 is a longitudinal section taken on the plane of the line X X, Fig. 1, the central portion being broken away. In this figure the slats are indicated as open. Fig. 4 is a detail view showing the method of hinging the ventilating-slats.

The register or ventilator comprises a box-like structure A, preferably formed of sheet metal.

B B are slats hinged therein, preferably near the lower edge thereof, so that by swinging said slats the ventilating-passages may be opened or closed. These slats may be operated by any well-known shifting device.

C C are cross pieces or strips which will be termed hereinafter "partitions" and which may be provided in any desired number. These partitions are secured to the register in a suitable manner, preferably by having retaining-tangs formed upon the ends of the partitions, passing through openings in the wall of the box, and riveted on the outside.

D is a top plate, preferably of the construction shown in a former patent granted to Warwick and myself on November 13, 1900, No. 661,615. This top plate is secured in any desired manner to the box A and may rest upon the upper edges of the partition C. The top plate serves to prevent the lateral displacement of the cross-strips or partitions C, since the upper edges of said partitions project into spaces formed by the downturned portions of the top plate. Obviously the width of the cross-strips may be varied as desired, so long

as they are of sufficient proportions to act as reinforces. The lower edges of the partitions C are preferably bent over to form the ledges C', while the edges of the slats are bent or offset to form shoulders B' B'. By proper arrangement these shouldered portions B' may engage on top of or underneath the ledges C', so as to form a very tight joint to effectively close the register. The end slats of course at one edge engage with the lower edge of the box, which, if desired, may be turned inwardly, as at A'. Corrugations A<sup>2</sup> are preferably formed in the box to stiffen the same, so that the metal employed may be much thinner than would otherwise be available or useful for the purpose. The partitions C are also by preference corrugated, thereby substantially strengthening them.

The register as a whole may be made of very light material, since the partitions C being secured thereto so as to form part thereof reinforce and strengthen the box proper and also act as a supporting means for the top plate. Consequently all of said parts may be made of unusually thin material. By this construction I am enabled to produce a commercially-satisfactory article of a thickness approximately one-half the thickness relatively to the size of the registers or ventilators now generally in use. This is a great advantage not only in saving of material, but also in reducing the cost of packing and shipping.

What I claim is—

1. A register comprising a box, partitions secured thereto and forming air-passages between them, a perforated top plate for said box above said partitions and adapted to be supported thereby, and means for opening and closing the air-passages between said partitions.

2. A register comprising a box, partitions secured thereto and forming air-passages between them, a perforated top plate for said box and resting against and supported by said partitions, and means for opening and closing the air-passages between said partitions.

3. A register comprising a box, partitions secured thereto and forming air-passages between them, a perforated top plate for said box above said partitions and adapted to be

supported thereby, means for opening and closing the air-passages between said partitions, said means comprising slats coacting with said partitions when in the closed position.

5 4. A register or ventilator comprising a box, a top plate, cross-strips underneath said top plate and arranged edgewise with respect thereto, said cross-strips being supported at

opposite ends by said box, said strips in turn being held from lateral displacement by said top plate.

Signed at New Britain, Connecticut, this 1st day of January, 1901.

HOWARD S. HART.

Witnesses:

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A. C. HASKELL.