

No. 701,481.

Patented June 3, 1902.

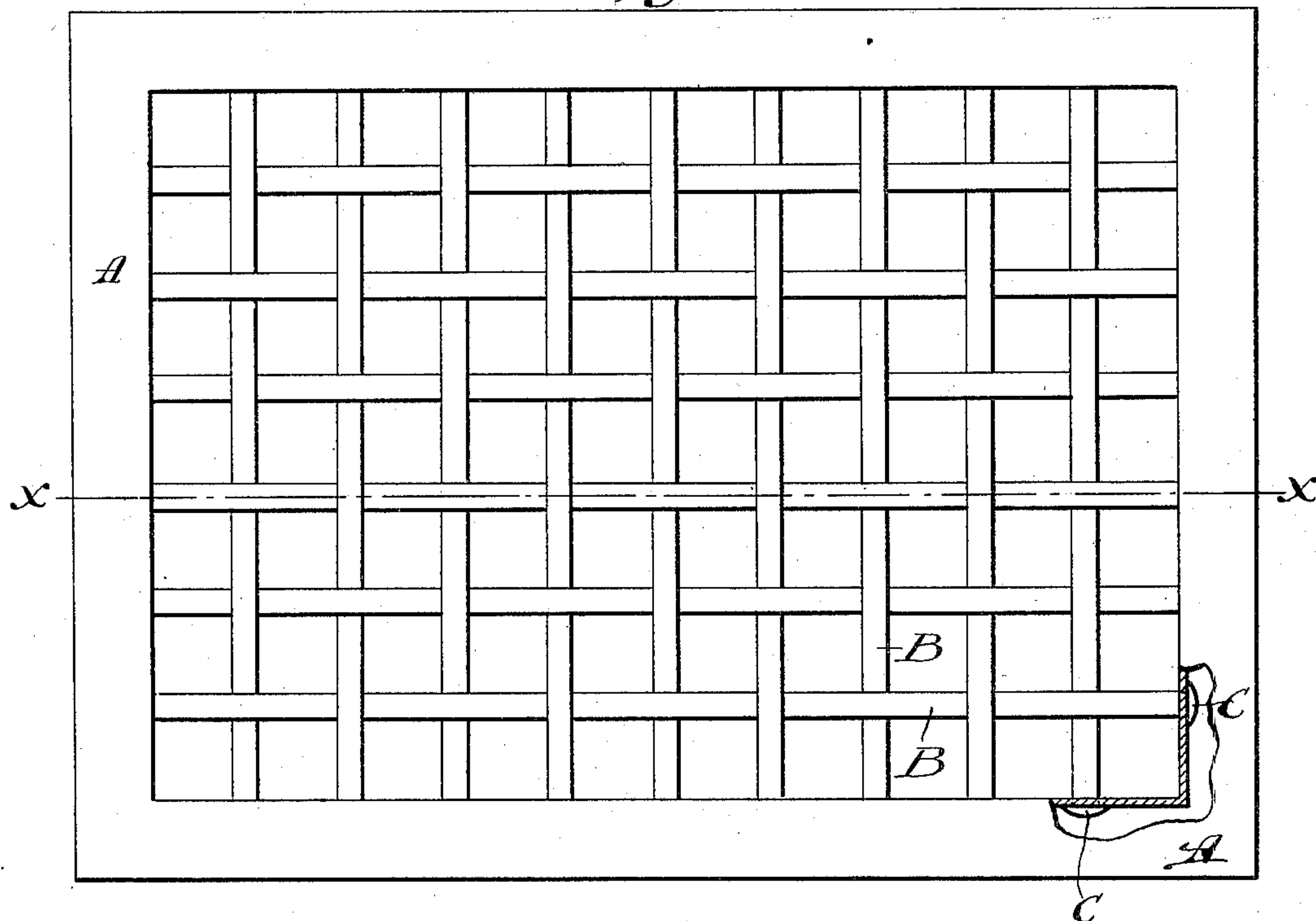
H. S. HART.
REGISTER, VENTILATOR, OR THE LIKE.

(Application filed Mar. 26, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.



WITNESSES:

W. H. Hackley.
R. B. Allen.

INVENTOR

Howard S. Hart.

BY
R. M. Cheever.
ATTORNEY

No. 701,481.

Patented June 3, 1902.

H. S. HART.
REGISTER, VENTILATOR, OR THE LIKE.

(Application filed Mar. 28, 1901.)

(No Model.)

2 Sheets—Sheet 2.

Fig. 3.

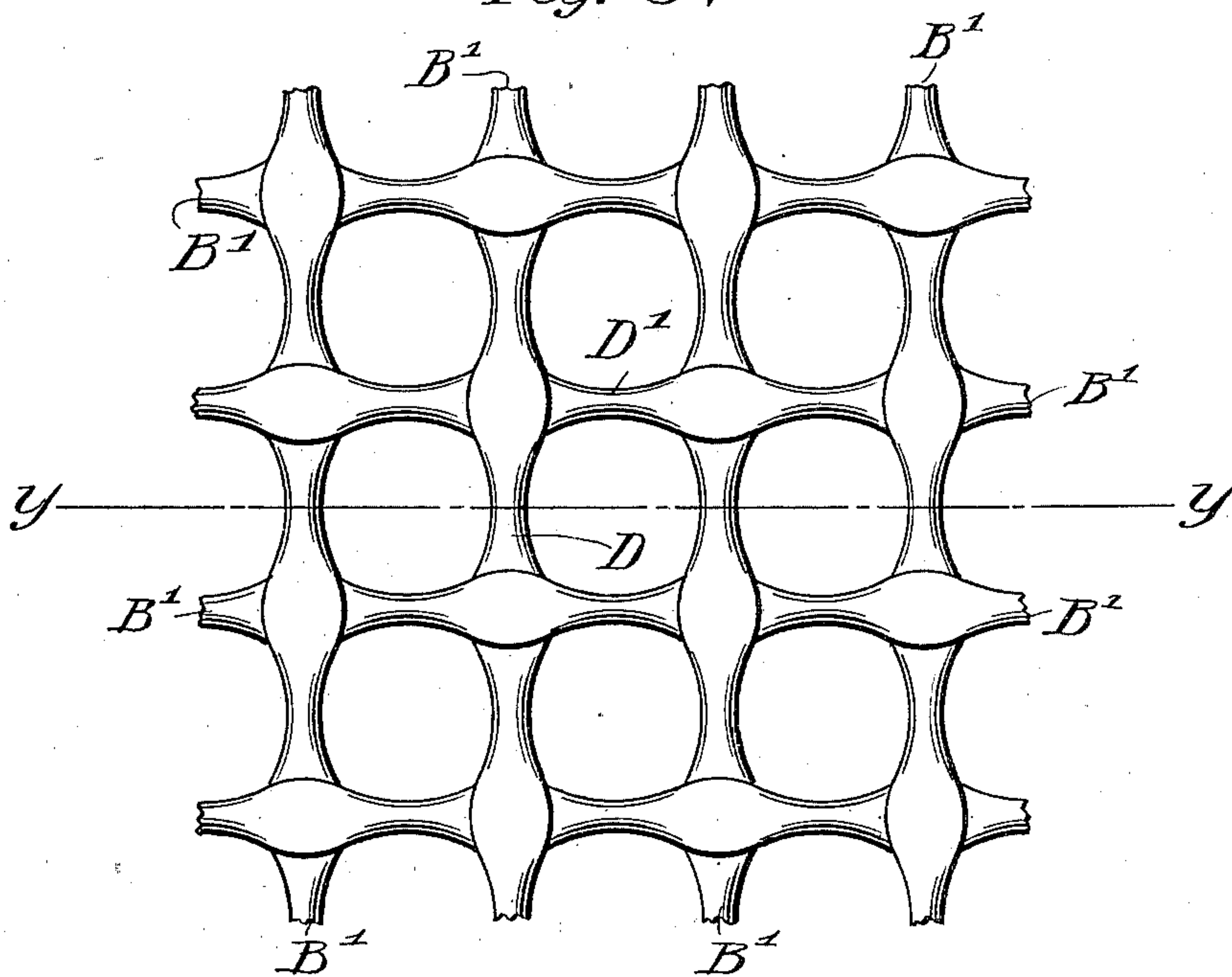


Fig. 4.



WITNESSES:

Frank S. Ober
Robt S. Allen

INVENTOR

Howard S. Hart.

BY

R. C. Meecham
ATTORNEY

UNITED STATES PATENT OFFICE.

HOWARD S. HART, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO HART & COOLEY COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

REGISTER, VENTILATOR, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 701,481, dated June 3, 1902.

Application filed March 26, 1901. Serial No. 52,905. (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, Ventilators, or the Like, of which the following is a full, clear, and exact description.

My invention relates to hot or cold air registers, ventilators, and the like; and it consists in an improved top plate therefor.

My invention has for its object the attainment of great strength, combined with lightness, simplicity, and economy of construction. In the drawings, which show the preferred embodiment of my invention, Figure 1 is a plan view of the top plate, and Fig. 2 is a section taken on the line X X of Fig. 1. Fig. 3 is a fragmentary view of a detail of a modification. Fig. 4 is a cross-sectional view on the line Y Y of Fig. 3.

A is a frame which may preferably be formed of sheet metal. A' is a flange extending downwardly from the inner edge of said frame.

B B are strips of metal, preferably of flattened wire, which are woven together and fastened to the depending flange A' of the frame, preferably by riveting the ends, as at C. This method of construction provides a very strong and light top plate and one which will bear greater shocks than a cast-metal top plate of the same weight. When a severe shock is applied to the top plate, the woven strips spring slightly and ease the effect of the blow, whereas a cast-metal top plate would be shattered by the same blow. The elasticity of the strips is such that they instantly recover after being sprung.

The simplicity of the construction of the top plate is such that great economy results in the manufacture. The frame may be formed from sheet metal by suitable dies. The holes in the flange A' may be punched and the strips B easily cut the desired lengths, while the insertion of the strips and riveting of the same is a simple matter. The frame being provided with a depending flange makes a very rigid and stiff support for the wires, while the action of riveting the wires to the flange

stretches them tightly across the opening of the frame. This stretching is accomplished by the drawing out of the metal during the process of forming the riveted head. The form of weave and size of mesh which the strips are given may be varied, as desired. While it is preferred to have the strips woven together, the same is not of course absolutely essential. In the form shown in Figs. 3 and 4 the flattened wires B' B' are arched in cross-section between the points of intersection, as shown at D and D', so as to give a rounded appearance to the upper side of the said strips and to afford additional strength. While it is preferred to make the frame of the top plate of a single piece, obviously it might be made of several pieces properly secured together. It should be understood that the top plate may be used independently of a box-like structure such as is generally employed with a hot-air register in which slats are provided, or it might be used with such a box.

The variations I have suggested are a few of the obvious ones which could be made without departing from the spirit or scope of my invention.

When the top plate is used with a hot-air register having the usual box and slats, it is obvious that the box portion might be formed integrally with the border portion of the top plate by extending the flange shown down sufficiently far to make the sides and ends of the box. This form of register is well known and does not need special illustration.

What I claim is—

1. A top plate for registers and the like, comprising a plate having an opening, a depending flange adjacent said opening, metal strips stretched across said opening and secured in position by the upset ends thereof.

2. A top plate for registers and the like, comprising a plate having an opening, a depending flange adjacent said opening, metal strips stretched across said opening and secured in position by riveting the ends thereof, one set of said strips crossing another set of said strips.

3. A top plate for registers and the like, comprising a frame and flattened wires attached to said frame and stretched across the

same, some of said wires crossing other of said wires, and said wires being arched in cross-section between the points of intersection.

4. A top plate for registers and the like, comprising a flanged frame and flattened wires riveted to the flange of said frame and stretched across the opening, a portion of some of said wires being arched in cross-section.

5. A top plate for registers, ventilators and the like comprising a frame, strips secured to said frame forming the bearing and sup-

porting surface of said top plate, the said strips being woven together and arched in cross-section at those portions between the points of their intersection one with the other.

Signed at New Britain, Connecticut, this 19th day of March, 1901.

HOWARD S. HART.

Witnesses:

CLARISSA E. BENTLEY,
E. W. CHRIST.