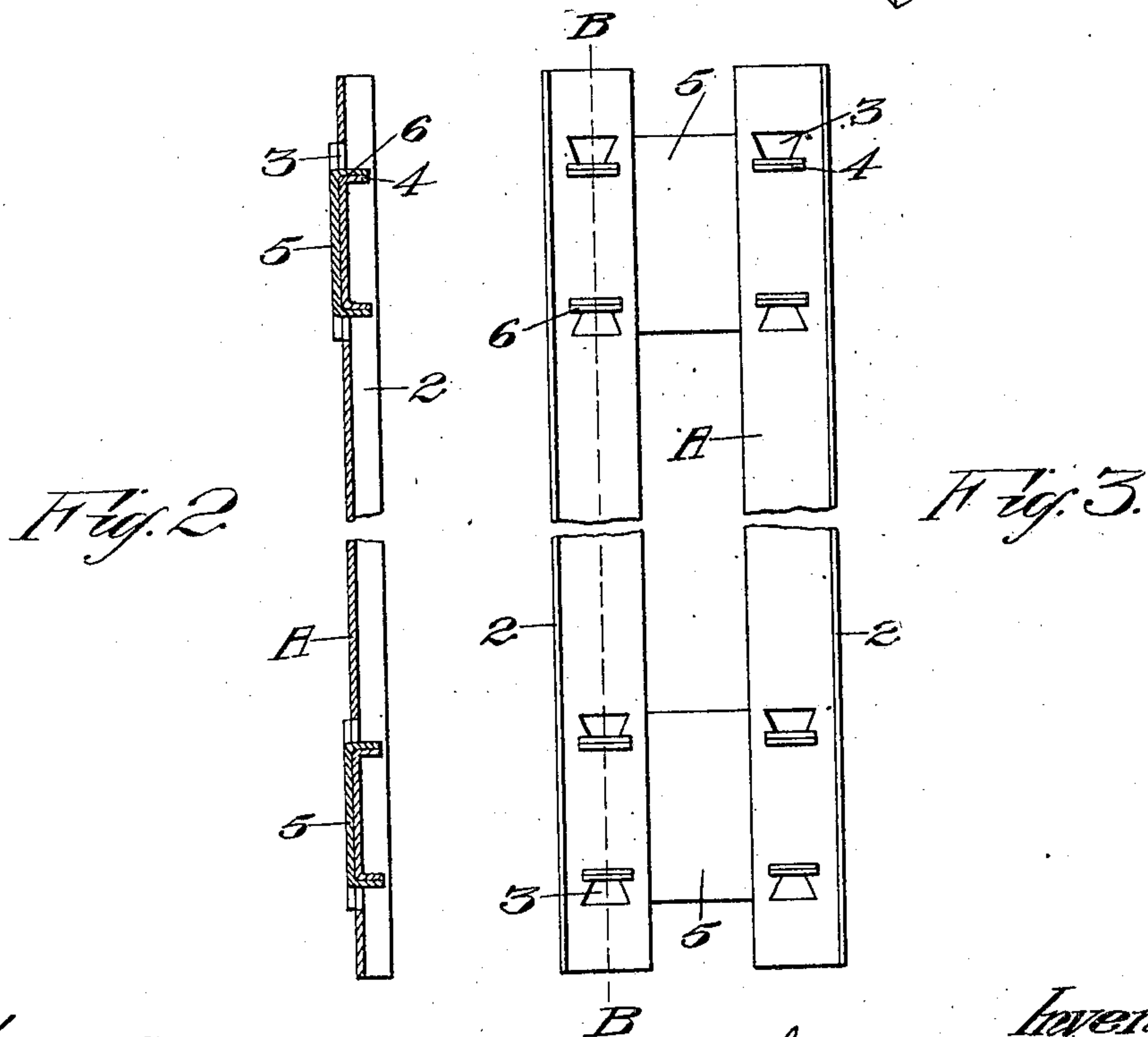
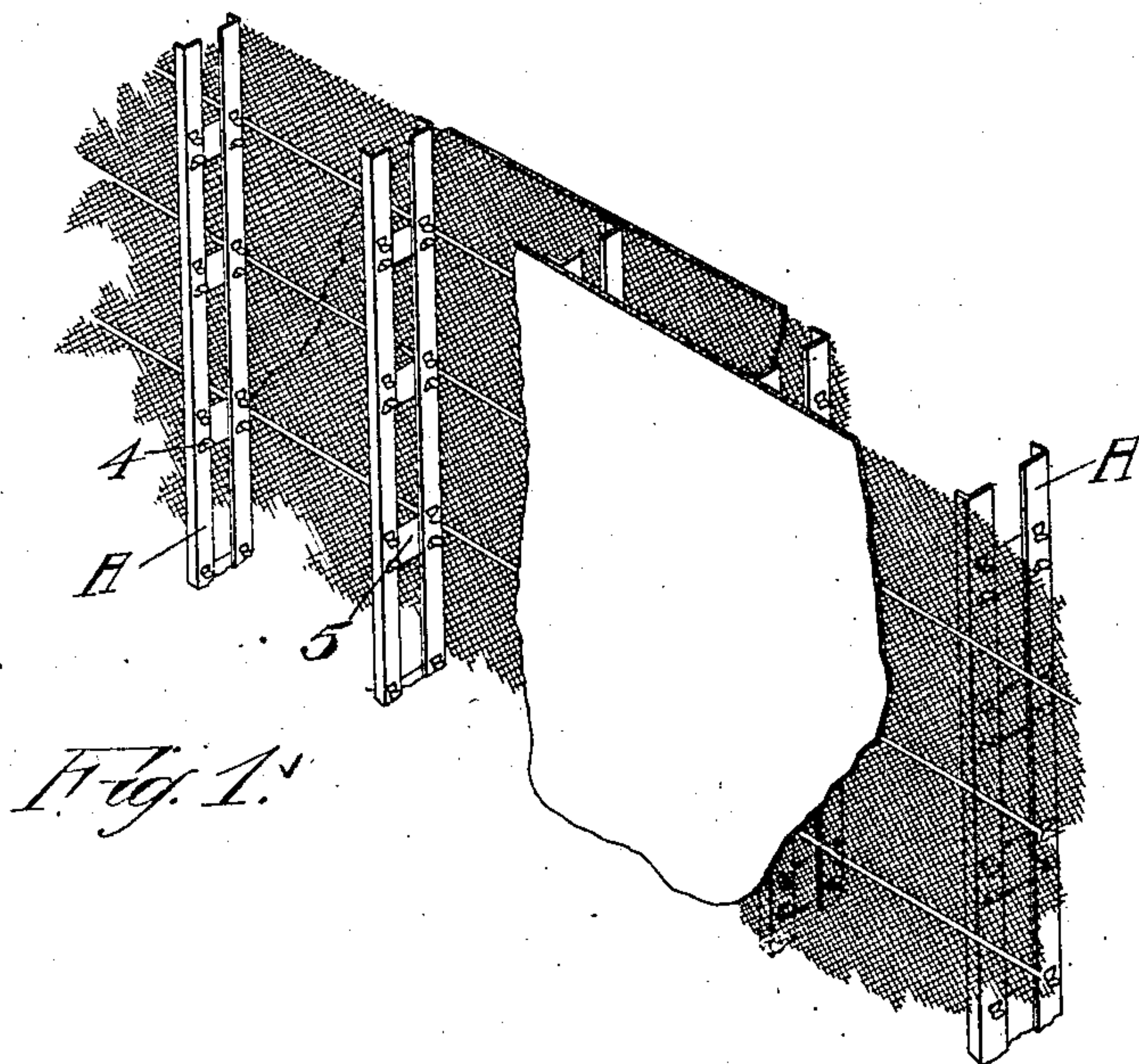


No. 837,090.

PATENTED NOV. 27, 1906.

J. F. MAKOWSKI.
METAL BUILDING CONSTRUCTION.
APPLICATION FILED JAN. 19, 1906.



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UNITED STATES PATENT OFFICE.

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METAL BUILDING CONSTRUCTION.

No. 837,090.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed January 19, 1906. Serial No. 296,758.

To all whom it may concern:

Be it known that I, JOHN F. MAKOWSKI, a citizen of the United States, residing at San Francisco, county of San Francisco, and State of California, have invented new and useful Improvements in Metal Building Construction, of which the following is a specification.

My invention relates to improvements in building construction which are especially applicable to partitions, floors, ceilings, concrete reinforce, and work of a like character.

It consists in the combination of parts and in details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a partition, partially broken away, to show the application of my invention. Fig. 2 is a longitudinal section on line B B of Fig. 3. Fig. 3 is a front view showing how the strips are locked together.

It is the object of my invention to construct a light and stiff structure which may be employed for any one of the first-named purposes and for others of a like character.

In carrying out my invention I take thin sheet metal and form upon it a flange on one side. The main portions of the strips thus formed are shown at A, and the upturned flanges are represented at 2. These strips are either set up vertically, as in the case of partitions or similar structures, or they may be laid horizontally for floors and the like. They are placed in pairs, as shown in the drawings, at such a distance apart as may be desired to form the required thickness from outside to outside, and they are connected as follows: Each of the strips A has punched in it an opening 3, so as to form a tongue 4, which can be turned outwardly at right angles with the strip. 5 represents other strips of sheet metal, and these are punched to form corresponding tongues 6, and these tongues 6 are folded through the slots formed in the part A, so as to lie parallel with the tongues 4 of the strips A. In order to firmly interlock these parts, I have here shown the tongues dovetailed and formed so that the opening which is left by turning down the tongues 4 will converge from the top downward, as here shown, and be narrowest at the point where the tongues are turned.

The tongues formed in the strips 5 may be

cut at the edges of the strips, and the strips are of such width that when the tongues are folded they will fold through the openings made in the strips A, and they lie flat upon the tongues 4. Thus the tongues being turned at each edge of the strip 5 and connecting with the two parallel strips A will lock the two firmly together, so that there will be any desired or required space or interval between the strips A. The distance from outside to outside of these pairs is equal, as before stated, to the required thickness of the partition or the depth of the floor or other part. The upturned flanges 2 of the strips A provide for a sufficient stiffness of the metal in that direction, while the binding of the strips together transversely makes a very rigid structure.

If this structure is to be in the form of a partition and to be plastered upon one or both sides, it will be seen that metal lathing of any description—such as wire, expanded metal, or the like—may be secured to the edges of the structure thus formed and when plastered will form a hollow wall for any uses to which such a wall may be put. If the structure is to be used for flooring or to support a body of concrete, it will be made in the same way and will then lie horizontally—that is, the depth will be represented by the distance between the outside flanges 2 of the strips A, and concrete may be filled in between these strips, it being understood that the number of pairs of strips A A, with their connections, will be sufficient to extend over the space to be covered. The concrete or equivalent flooring will be so placed that the upper portion of the structure will be embedded in the concrete, and, if desired, the lower portion may serve as the ceiling of the apartment beneath and be lathed and plastered, as before described. It will be seen that a similar structure can be used to form a roof, a sidewalk, or other concrete support and reinforce. These strips A, united in pairs, as previously described, and set up as a partition, form a metal studding, the pairs being set as far apart as may be desired or as contract calls for, and when laid for floors or equivalent horizontal or inclined structure they will serve in the place of girders to support the superstructure.

It will be understood that any lock may be employed equivalent to that herein described

by which the connecting strips or plates may be secured or interlocked with the main strips.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A building construction comprising angle-strips of metal fixed in pairs, and transverse strips connecting the members of said pairs said transverse strips having tongues and said angle-strips having slots with which said tongues interlock.

2. In a metal construction for buildings and the like, strips of metal having flanges turned at right angles with the main portion, trapezoidal slots cut at intervals in the length of each of the strips to form tongues which are turned at right angles with the surfaces of the strips, transverse strips having similar tongues interlocking with those of the first-named strips.

3. In a metal construction for buildings, strips of metal having flanges turned upon

their edges, trapezoidal slots formed at intervals in the length of the strips, and having tongues turned at right angles from the narrowest of the parallel sides of the slots, transverse strips extending across two of the first-named strips having similar tongues cut and bent from their edges, said tongues passing through the slots of the first-named strips and being bent to interlock therewith.

4. In a hollow partition, floor and like structure, the combination of angle-iron strips separated from each other in pairs, and transverse strips extending between the members of each pair of angle-iron strips, said transverse strips having tongues interlockable with the angle-iron strips.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOHN F. MAKOWSKI.

Witnesses:

HENRY P. TRICOU,
S. H. NOURSE.