E. Tuttle,

Tie for Hollow Walls.

No. 99,035. Patented Jan. 18, 1870.

Fig. 1.

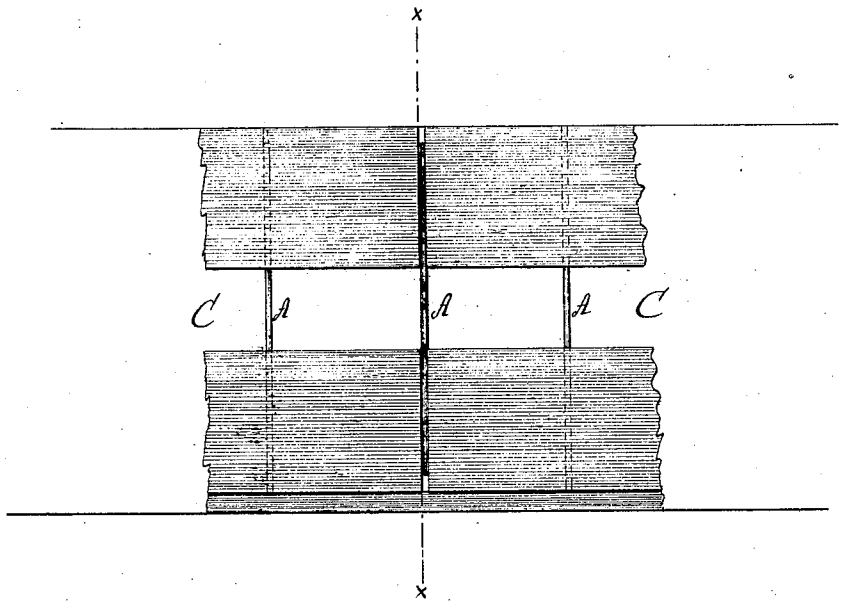
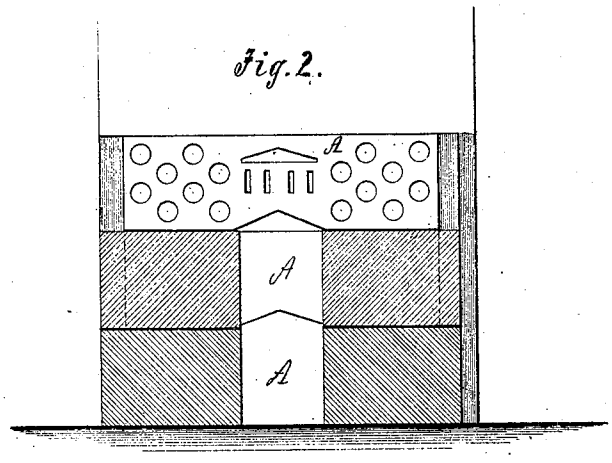


Fig. 2.



Witnesses:
A Bennenendorf
Alex F. Roberts

Inventor:
E. Tuttle
PER
Attorneys.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

EDWIN TUTTE, OF FAREHAM, ENGLAND.

Letters Patent No. 99,035, *dated January* 18, 1870.

IMPROVED TIE FOR HOLLOW WALLS.

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, EDWIN TUTTE, of Fareham, Hampshire, in England, have invented a new and useful Improvement in Ties for Hollow Walls; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in ties for hollow walls; and

It consists in the use of thin plates, placed on edge in the wall, as hereinafter more fully described.

In the accompanying drawing—

Figure 1 represents a top view of a section of a hollow wall, with my improved ties applied.

Figure 2 is a vertical section of fig. 1, through the line *x x*.

Similar letters of reference indicate corresponding parts.

In building hollow brick walls, it is well known that it is indispensible to connect the two parts of the wall together by means of ties. Wooden blocks are ordinarily used, which occupy much space, presenting broad upper surfaces, which allow both bricks and mortar to lodge on them, in the process of building the wall, thereby forming a communication between the two parts of the wall, for conveying moisture from the outer to the inner part, thus counteracting, to a great extent, the benefits to be derived from hollow walls, which is the exclusion of moisture from the inner wall.

Metallic plates have also been used for connecting the two parts of the wall of a cylindrical building, but the same were laid horizontally between the courses of brick, and were made broad between the two concentric walls, thus forming a convenient lodging-place for mortar. These plates are expensive in manufacture, and arranged very differently from those employed by me.

For the purpose of overcoming the difficulties above hinted at, I provide thin plates A, which I place on edge in the cross-points between the bricks of the two parts of the wall, as seen in the drawing.

B represents the brick.

C represents the space between the two parts of the wall. These ties need not exceed one-fourth of an inch in thickness. One-eighth is sufficient for all ordinary purposes.

The ties may be made of any suitable kind of metal, but preferably of cast-iron, and either notched and perforated or not, as may be desired. The ties may be made of slate, but I prefer metal. In width they should be about equal to the thickness of the brick, and in length they should extend in each direction from the space C, nearly the width of a brick, as represented in the drawing. Their upper edges may be sharp or bevelled, so that mortar will not lodge on them; but the plates are designed to be made so thin as to effect this result without bevelling.

In all cases they are placed on edge, as represented.

With these ties the parts of the wall may be joined together and stayed, without the possibility of bricks and mortar lodging thereon, and forming capillary tubes through the wall for the conveyance of moisture.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The thin metallic plates A, either bevelled or not, on their upper edges, and arranged vertically and transversely in the cross-joints between the bricks of the two parts of a wall, their ends being enclosed by the bricks, all as shown and described, for the purpose specified.

The above specification of my invention signed by me, this 28th day of September, 1869.

EDWIN TUTTE.

Witnesses:

WILLIAM STANLEY,

FRANK COOPER.