

F. A. PORTER.  
WALL TIE FOR MASONRY.  
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917,656.

Patented Apr. 6, 1909.

Fig. 1.

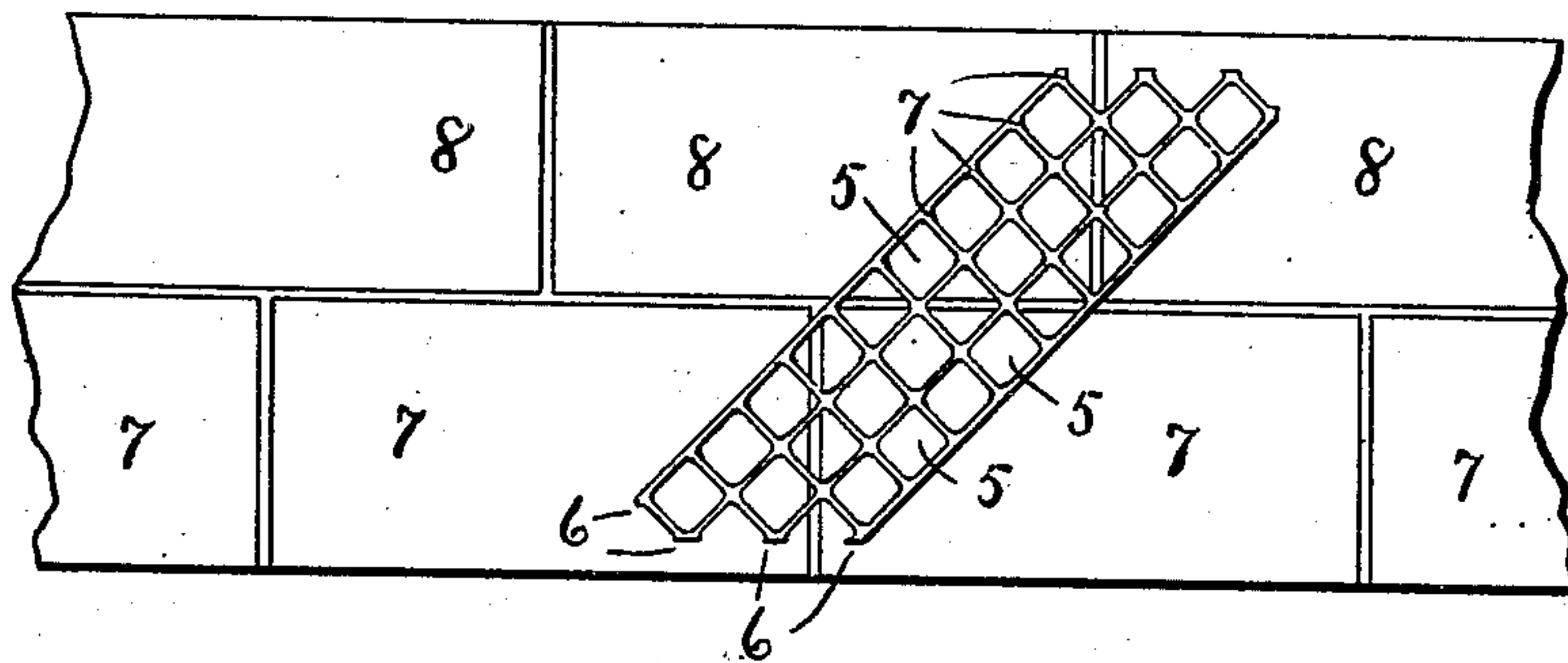


Fig. 2.

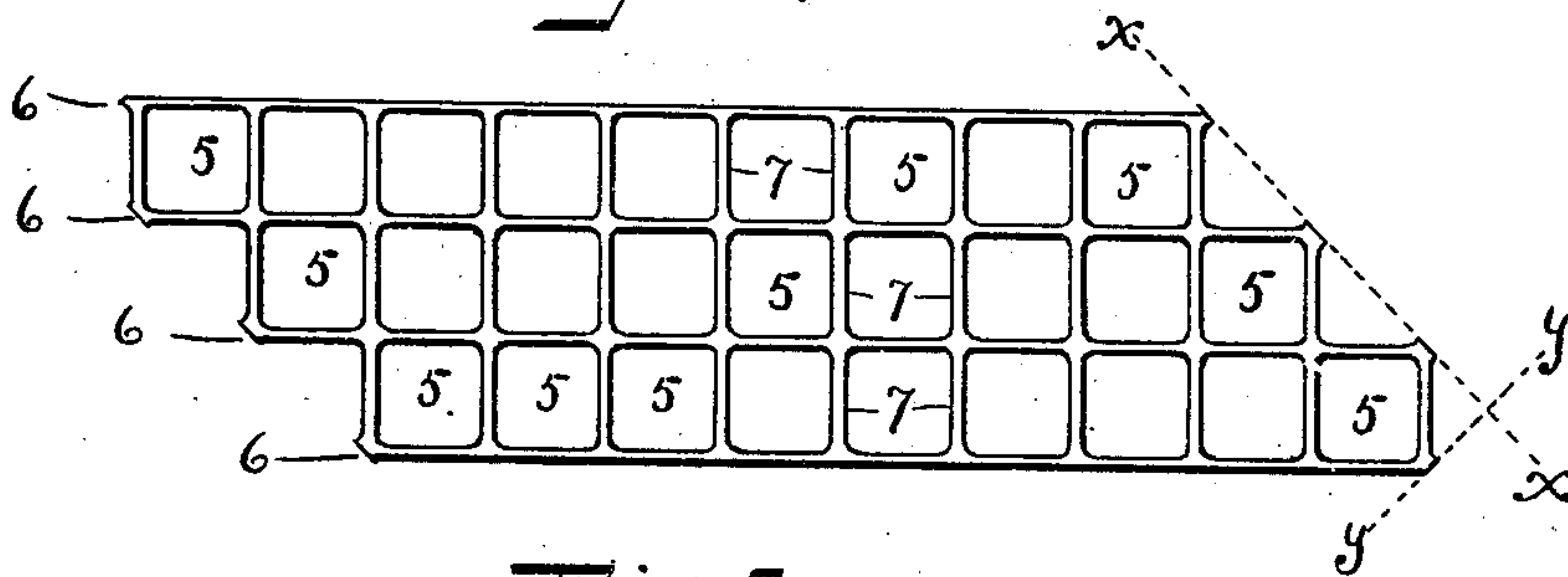


Fig. 3.

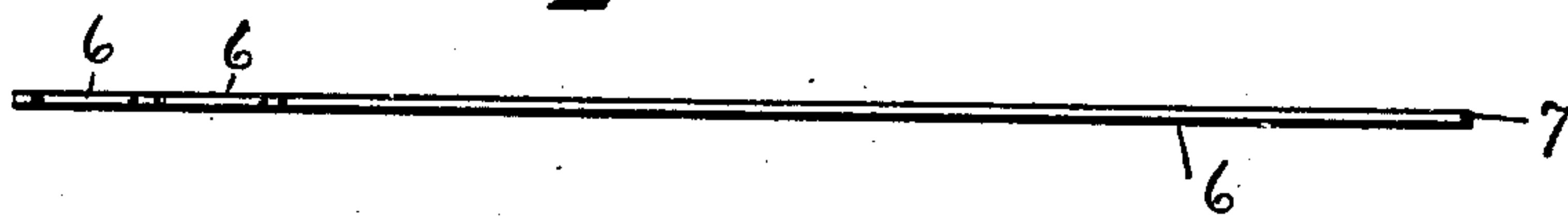
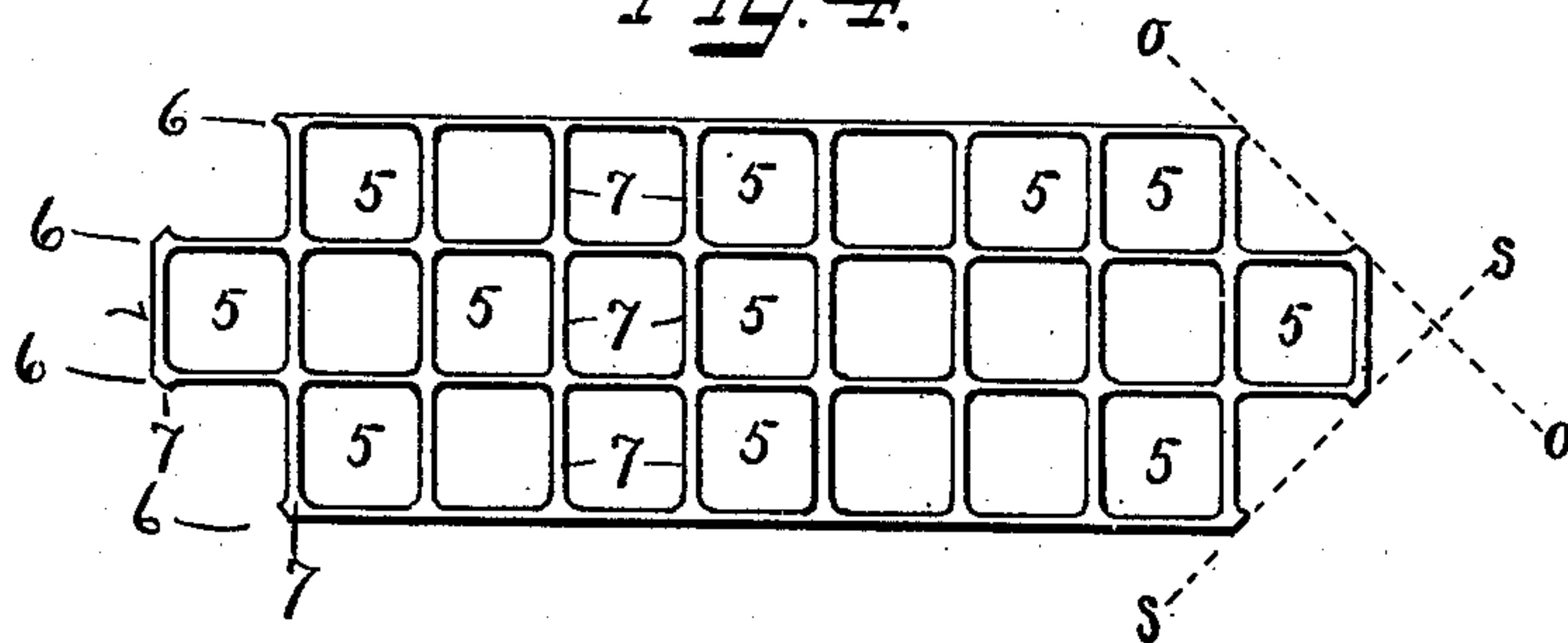


Fig. 4.



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# UNITED STATES PATENT OFFICE.

FRANK A. PORTER, OF NEW BRITAIN, CONNECTICUT, ASSIGNOR TO NATIONAL SPRING BED COMPANY, OF NEW BRITAIN, CONNECTICUT, A CORPORATION.

## WALL-TIE FOR MASONRY.

No. 917,656.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed November 28, 1908. Serial No. 464,978.

*To all whom it may concern:*

Be it known that I, FRANK A. PORTER, a citizen of the United States, residing at New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Wall-Ties for Masonry, of which the following is a specification.

My invention relates to improvements in wall ties for binding courses of masonry together, and the object of my improvement is to produce an article for such use that is strong and broad, while it is so thin as to be embedded in an ordinary mortar joint where it covers other joints without materially separating the mortar therefrom.

In the accompanying drawing:—Figure 1 is a plan view of a portion of a brick wall with one of my ties placed thereon. Fig. 2 is an enlarged plan view of one of my ties in the preferred form. Fig. 3 is an edge view of the same. Fig. 4 is a plan view of my tie with the ends thereof in a different form.

I form my tie from a strip of sheet metal by cutting out therefrom a series of openings 5 which openings are preferably each in the form of a rectangle with slightly rounded corners and formed in regular rows so as to leave between the openings connected bars 6 and 7, extending longitudinally and transversely of the strip in lines parallel with and at right angles to the length of the strip, as shown. The openings between the bars are comparatively wide so as to form narrow bars that will not materially divide or separate the masonry into distinct laminæ, the openings as shown, being more than six times the width of the main part of the connecting bars. The long strips thus formed are next cut into suitable lengths for ties, preferably as shown in Figs. 1, 2 and 3, by

oblique cuts extending diagonally of the openings 5 through the metal at corners where the longitudinal and transverse bars 6 and 7 meet each other. When the strip has three rows of the openings 5 and consequently four of the longitudinally extended connecting bars 6, I prefer to cut three of these bars on the oblique broken line *x x* of Fig. 2 and the fourth bar at the same end on the line *y y*; the other end of the tie being formed by cuts on like lines parallel therewith so that the tie may be placed obliquely to the wall in which it is used and cover two or more rows of bricks 7 and 8, as shown in Fig. 1.

If desired, the strip may be severed by cutting through the metal on the oblique lines *o, o*, and *s, s*, which cross each other at a point equally distant from each edge of the strip so as to leave the most projecting part of each end in the middle as shown in Fig. 4, instead of near one edge as shown in Figs. 1 to 3. The ties when laid are embedded in the mortar joints and they may be placed in any desired position within the thickness of the wall and as thickly together as may be desired. I prefer to place them obliquely to the wall, as shown in Fig. 1.

I claim as my invention:

As an article of manufacture, a wall tie for embedment in a mortar joint, the said tie consisting of a flat skeleton plate formed of a strip of sheet metal provided with narrow and parallel connecting bars extending longitudinally and transversely of the tie, with parallel series of longitudinal rows of comparatively wider openings between the said bars.

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Witnesses:

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