

P. KOSACK.
WALL TIE.

APPLICATION FILED MAR. 3, 1910.

963,779.

Patented July 12, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

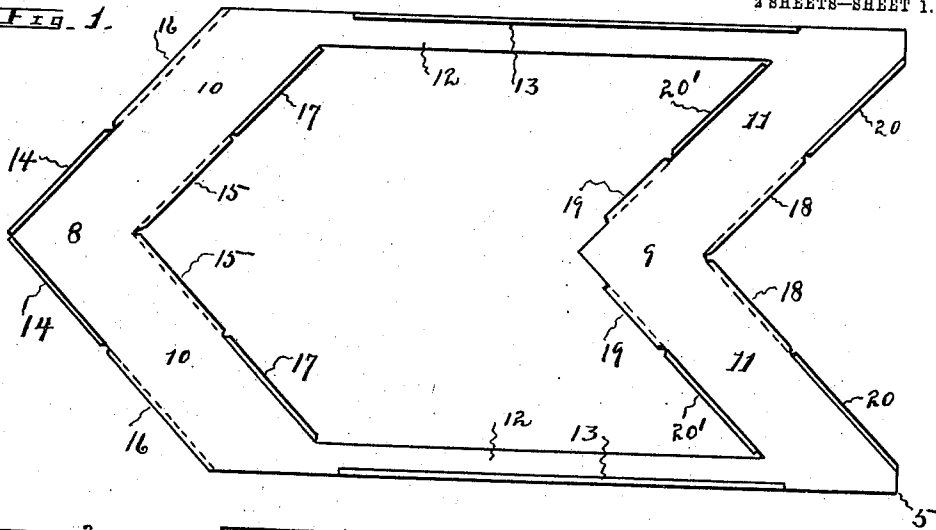


Fig. 2.

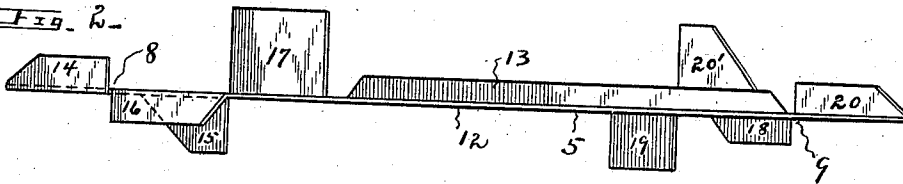


Fig. 3.

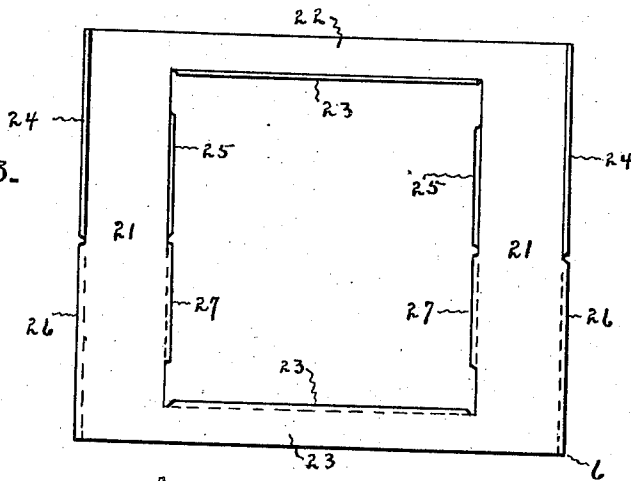
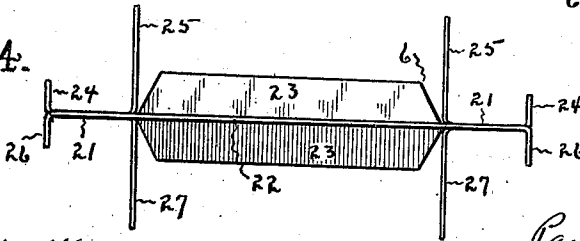


Fig. 4.



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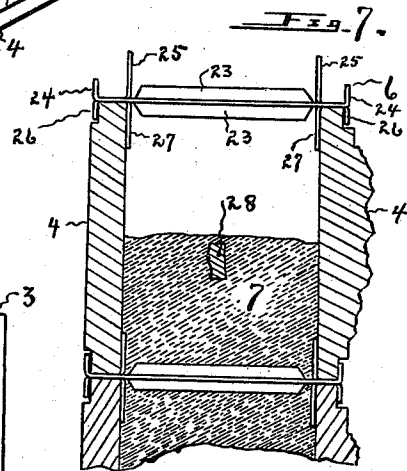
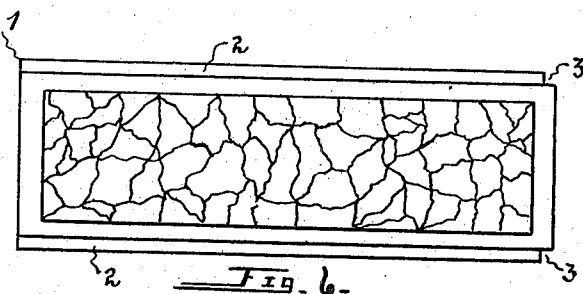
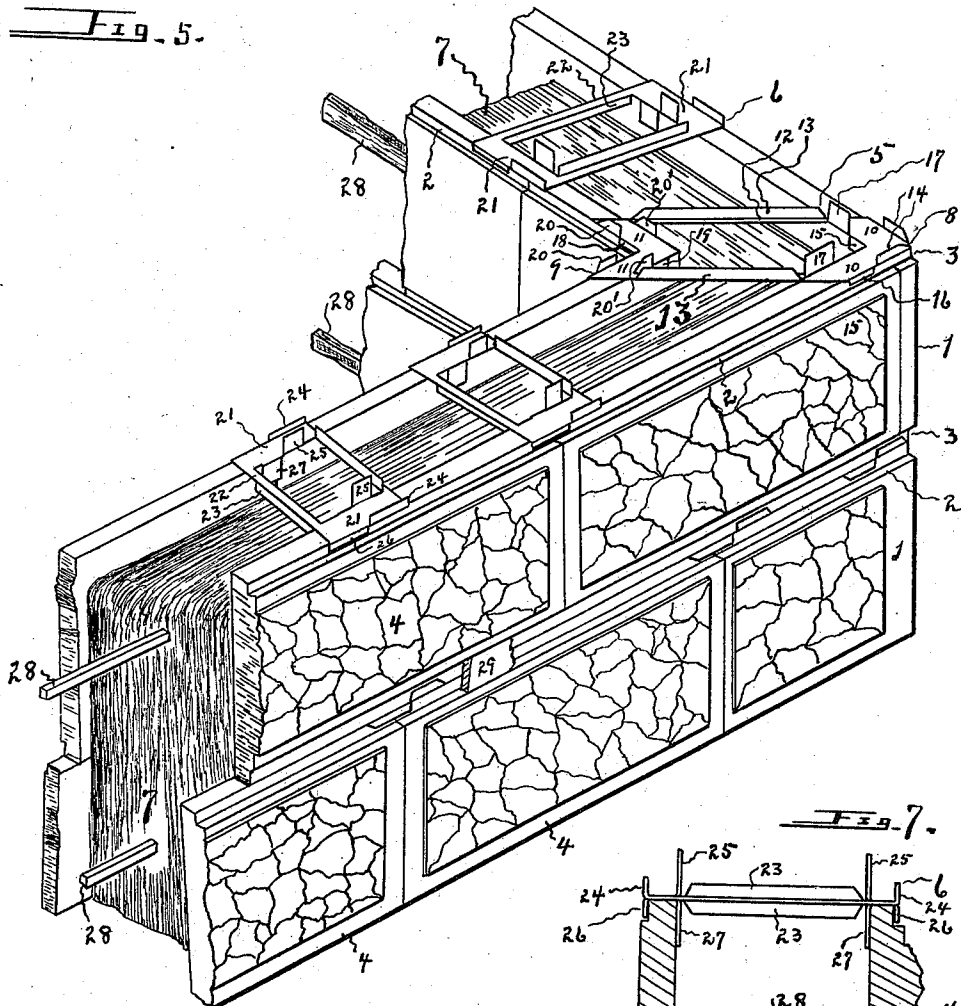
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2 SHEETS—SHEET 2.

Fig. 5.



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UNITED STATES PATENT OFFICE.

PAUL KOSACK, OF OMAHA, NEBRASKA.

WALL-TIE.

963,779.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed March 3, 1910. Serial No. 546,999.

To all whom it may concern:

Be it known that I, PAUL KOSACK, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Wall-Ties, of which the following is a specification.

This invention relates to improvements in wall ties for use in connecting the outer and inner building blocks of the courses where comparatively thin, rectangular blocks are employed and the space between the courses is filled with cement or similar substance.

One of the objects of the invention is to provide reinforced longitudinal side-strips for connecting the bearing-plates or heads, and in this respect the construction differs from the wall ties illustrated in companion application for U. S. Letters Patent, Serial No. 546,996, filed March 3rd, 1910.

The invention consists of the novel construction, combination and arrangement of parts as described herein and claimed, and illustrated in the accompanying drawing, wherein,—

Figure 1 is a plan view of a corner piece, anchor or wall tie embodying my invention. Fig. 2 is a side elevation of the same. Figs. 3 and 4, respectively, are plan and end views of a tie used in connecting the courses of the side walls. Fig. 5 is a perspective view of a portion of a building wall, with ties mounted thereon. Fig. 6 is a side view of one of the corner wall-blocks employed. Fig. 7 is a transverse sectional view of a wall.

Referring now to the drawing for a more particular description, numeral 1 indicates a corner wall-block, rectangular in form and having longitudinal grooves 2 adjacent to and opening upon its side edges and having notches 3 at one of its ends communicating with grooves 2; and at 4 are indicated rectangular wall blocks in all respects similar to blocks 1 except they are not formed with notches. Blocks 1 and 4 are of cement or similar material, and are constructed as thin plates, comparatively, so they may be economically manufactured.

In constructing the wall, corner wall-plates 1 and wall plates 4 are disposed vertically or edgewise in the usual manner, the grooves being adjacent to each other, and to the end that the inner and outer blocks or plates may be accurately spaced apart and reliably held, I employ the corner tie-strip

indicated at 5 and the wall tie 6, after which filling material 7 is placed between the blocks which form the courses, said material being a composition in semi-liquid form, of sand, water and cement or similar plastic, adhesive substance.

The corner wall-tie 5 consists of a metallic plate incised to form the outer bearing-head 8 and inner bearing-head 9, each having a width substantially equal to the thickness of the blocks, and each having integral wings respectively indicated at 10 and 11, the outer ends of said wings being connected by strips 12 having longitudinal reinforcing flanges 13. Wings 10 are disposed at right angles and, at their junction, upon their respective outer and inner edges are provided with upwardly-projecting flanges 14 and downwardly-projecting flanges 15, and, adjacent to strips 12, upon their respective outer and inner edges, are provided with the downwardly-projecting flanges 16 and upwardly-projecting flanges 17. Wings 11 also have a width substantially equal to the thickness of the blocks and are disposed at angles coincident with wings 10, and near the junction of wings 11, upon their respective outer and inner edges, said wings are provided with downwardly-projecting flanges 18 and 19; and adjacent to strips 12, upon the respective outer and inner edges of said wings 11, are provided upwardly-projecting flanges 20 and 20'. As thus described wall-tie 5 may be disposed diagonally of the two side walls, and the end portions of two adjacent blocks 1 which form an outer course of a corner may be seated upon wings 10 of bearing head 8, and since the outer flanges 14 and inner flanges 17 are spaced apart at longitudinal intervals of the wings and project upwardly, they provide adequate means for holding the corner blocks of the next or upper course, downwardly-projecting flanges 16 being seated in the grooves upon the outer sides and flanges 15, which also project downward, embracing the inner sides of the blocks of the course upon which the wings are seated.

The two adjacent end portions of the blocks which form the inner course of the corner may have seatings upon wings 11 of bearing-head 9, and the function of the flanges which project upwardly and downwardly are substantially the same as already mentioned; all of the flanges upon the outer edges of the wings engage within the grooves

or notches, and the flanges upon the inner edge of the wings embrace the inner surface of the blocks, and thereby the blocks are disposed accurately at proper distances apart, and are securely held.

Wall ties 6 are employed for holding the blocks of the several courses of the wall and each consists of the two, flat bearing-heads or plates 21 for seatings upon and having a width substantially equal to the thickness of the outer and inner blocks, at their edges, plates 21 being integrally connected at their respective ends by side-strips 22, each of the side-strips being provided with a longitudinal reinforcing flange 23; said bearing-plates being provided with oppositely-disposed, upwardly-projecting flanges 24 and 25 and with oppositely-disposed, downwardly-projecting flanges 26 and 27 formed upon their outer and inner edges, the flanges upon their outer edges adapted to have seatings in grooves 2, the flanges upon their inner edges adapted to embrace the inner sides of the blocks. In operation, wall ties 6 are each disposed so that the oppositely-disposed, downwardly-projecting flanges of one of its bearing-plates have a seating upon two adjacent wall blocks of a course, and the upwardly-projecting flanges of said bearing-plates provide a holding means for the next or upper course.

Filling material 7 is always employed in wall construction, in connection with the tie strips thus described, the thin building blocks not being depended upon for the required strength of the wall; and if desired, longitudinal strands 28 may be placed between the courses and embedded in the filling material.

Flanges 13 and 23 are for the purpose of adding rigidity to the side strips of the wall ties.

By using the ties thus described, walls of

a building may be conveniently constructed, the ties, in effect providing gages or measuring means so that the outer and inner blocks of a course will be uniformly spaced apart.

In practice, the flanges which appear in the grooves, exteriorly of the wall, may be covered or embedded, since an adhesive filling material may be used and applied, as indicated at 29, to fill the grooves.

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

1. A wall tie for corner blocks comprising adjacent metallic bearing plates each comprising a pair of angular wings with a plurality of longitudinal flanges formed upon their edges and projecting transversely in directions opposed to each other, and strips extending between and connecting the ends of said bearing plates.

2. A wall tie for corner blocks comprising a flat, metallic plate incised to provide adjacent, angular bearing-heads with connecting strips therebetween, said bearing-heads being provided with oppositely disposed flanges upon their edges.

3. A wall tie for corner blocks comprising a flat, metallic plate incised to provide adjacent, connected bearing-heads, with substantially parallel strips extending between and connecting the ends of said heads, said strips being formed with longitudinal flanges; said bearing heads being formed as angular wings, the wings of said plates being disposed with their angles coincident and provided with flanges projecting at right angles from their outer and inner edges.

In testimony whereof I have affixed my signature in presence of two witnesses.

PAUL KOSACK.

Witnesses:

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