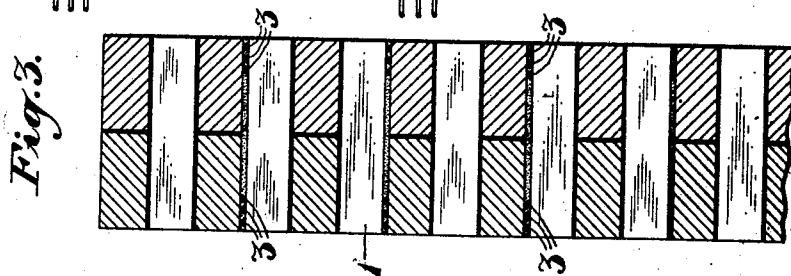
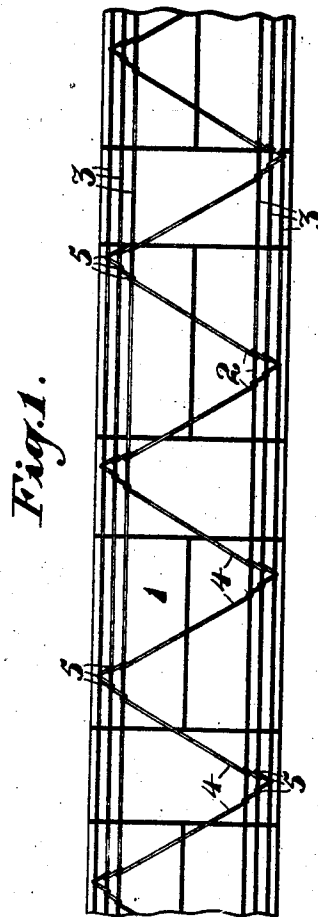
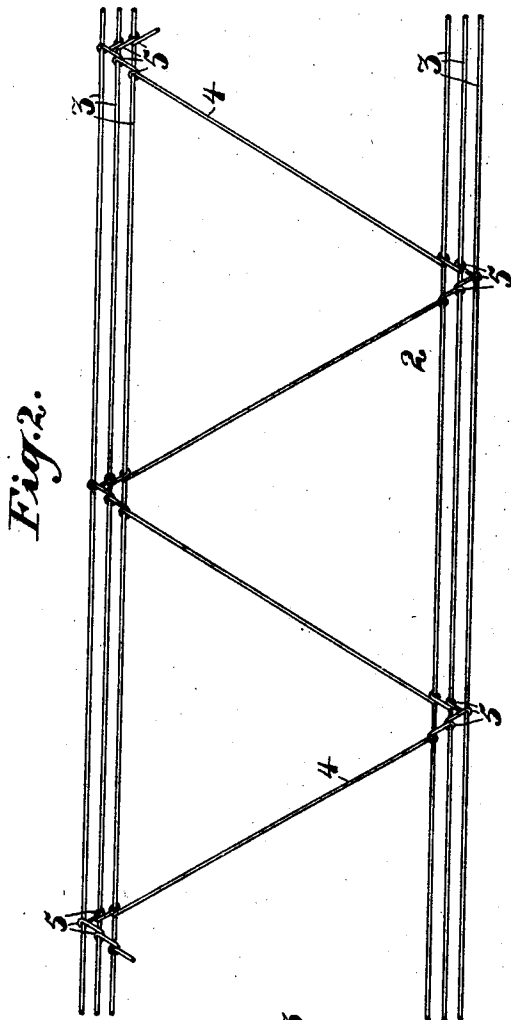


No. 874,881.

PATENTED DEC. 24, 1907.

F. J. BAKER.
WALL.

APPLICATION FILED JULY 18, 1906.



WITNESSES:

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FRANK J. BAKER, OF SAN FRANCISCO, CALIFORNIA.

WALL.

No. 874,881.

Specification of Letters Patent. Patented Dec. 24, 1907.

Application filed July 18, 1906. Serial No. 326,714.

To all whom it may concern:

Be it known that I, FRANK J. BAKER, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented new and useful Improvements in Walls, of which the following is a specification.

This invention relates to improvements in walls, of brick, concrete, or the like, the object of the invention being to provide walls of greater strength for a given thickness and at a given cost, than has heretofore been possible.

Fig. 1 shows a plan view of a wall course having the tie frame in place. Fig. 2 shows a plan of the tie-frame. Fig. 3 shows a section through a wall showing the tie frame between the courses.

In the accompanying drawing, I indicate the brick-work, or other non-metallic material of a wall. At suitable intervals in its height, according to the conditions required, there are laid in the wall while building it wire frames or reinforcements 2, shown in detail in Figure 2. Each frame comprises a group of wire strands 3 at each side of the wall, comparatively close to each other. There may be any desired number of such strands in each group; three being here shown. Connecting the two groups of strands on opposite sides of the frame is a tie wire 4, which extends diagonally in a zigzag course, first to one side of the frame, and then to the other side, being looped, as shown at 5, around each wire in turn as it passes it. These loops 5 serve to maintain the strands of each group at the proper distance from each other. Moreover, on account of the oblique direction of the loops relatively to the strands, causing the strands to bind in the loops, the loops tie said strands against longitudinal movement.

The group of strands at each side of the wall binds and strengthens that side and prevents disruption thereof from any cause tending to produce flexure of the wall. The whole frame, and particularly the longitudinal wires, strengthen the wall against longitudinal strain, the tie wires and loops serving as anchors for this purpose. The tie

wires bind the courses of the bricks against lateral strain, being anchored, first, by the loops in said tie wires, and, secondly, by the longitudinal wires passing through said loops. Thus, by means of this reinforcement, walls of a given thickness may be constructed of much greater strength than heretofore at a very slight increase of cost.

I claim:—

1. A wall having embedded therein a longitudinal reinforcement comprising a group of wires spaced from each other adjacent to each side of the wall, and a tie wire connecting all of said wires, substantially as described.

2. A wall having embedded therein a longitudinal reinforcement comprising a group of wires spaced from each other, adjacent to each side of the wall, and a zigzag tie wire obliquely connecting all of said wires, substantially as described.

3. A wall having embedded therein a longitudinal reinforcement comprising a group of wires adjacent to each side of the wall, and a tie wire connecting said groups, said tie wire being looped around each wire in turn, substantially as described.

4. A metallic frame comprising two groups each containing parallel strands of wire, spaced from each other, all substantially in the same plane, the strands of each group being comparatively close to each other relative to the distance between the groups, and a tie wire connecting the several strands obliquely, substantially as described.

5. A metallic frame comprising two groups of parallel strands of wire, all substantially in the same plane, the strands of each group being comparatively close to each other relative to the distance between the groups, and a tie wire connecting the several strands obliquely and being looped around each wire, substantially as described.

6. A metallic frame comprising two groups, each containing parallel strands of wire, spaced from each other, all substantially in the same plane, the strands of each group being comparatively close to each other relative to the distance between the groups, and a tie wire connecting the several strands ob-

liquely in a zigzag direction, substantially as described.

7. A metallic frame comprising two groups of parallel strands of wire, all substantially in the same plane, the strands of each group being comparatively close to each other relative to the distance between the groups, and a tie wire connecting the several strands obliquely in a zigzag direction, being looped

around each wire in turn, substantially as described. 10

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

FRANK J. BAKER.

Witnesses:

F. W. LAWLER,
F. W. WRIGHT.