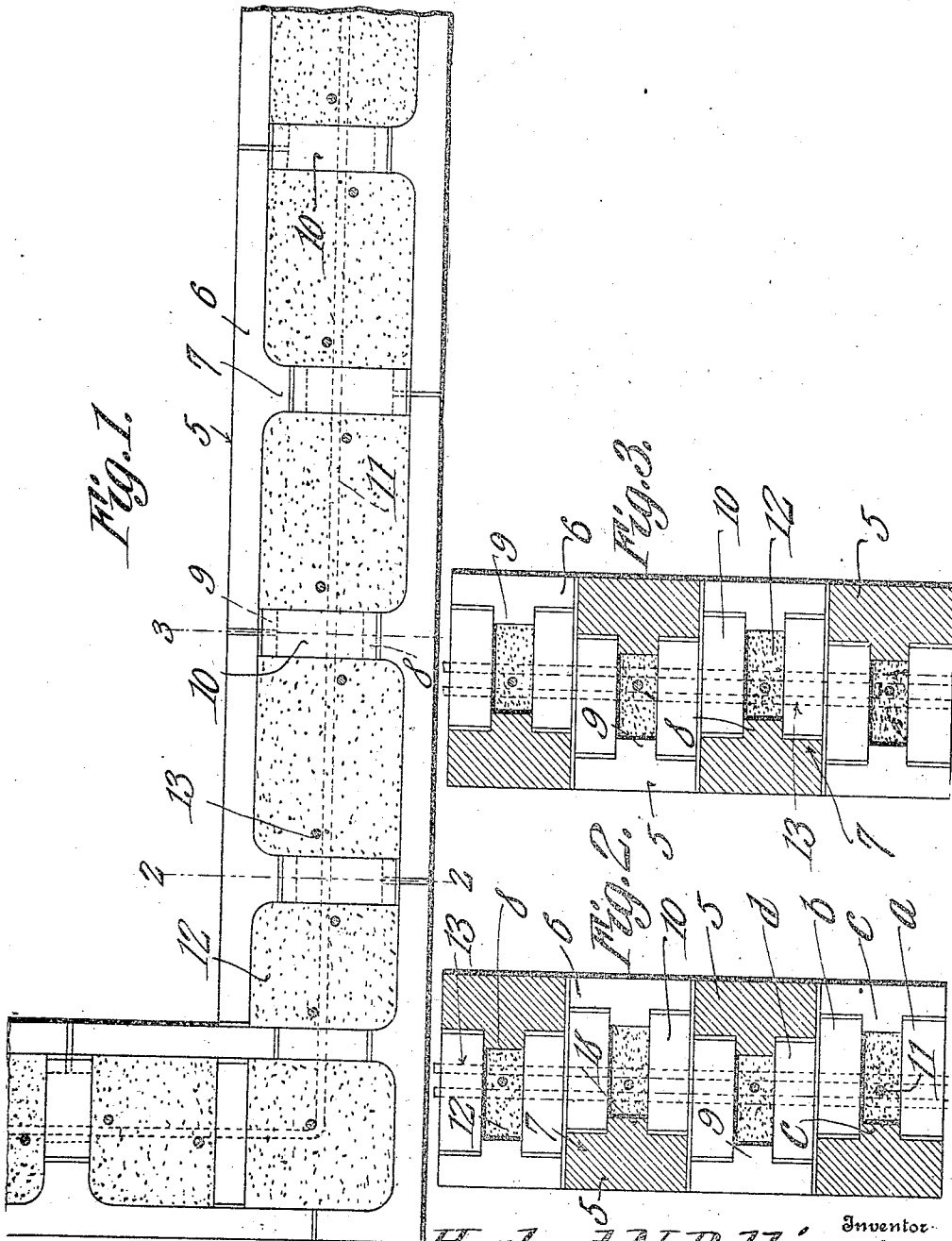


954,690.

Patented Apr. 12, 1910.



Witnesses
[Signature]
[Signature]

Inventor
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UNITED STATES PATENT OFFICE.

HERBERT NOEL PETTIGREW, OF NEW ORLEANS, LOUISIANA.

CONCRETE WALL

954,690.

Specification of Letters Patent. Patented Apr. 12, 1910.

Application filed August 23, 1909. Serial No. 514,237.

To all whom it may concern:

Be it known that I, HERBERT NOEL PETTIGREW, a citizen of the United States, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and useful Concrete Wall, of which the following is a specification.

It is the object of the present invention to provide an improved construction of building wall and also to provide a novel form of building block, and the invention further discloses a novel method of building up a wall of this character from the blocks embodying the invention.

One feature of the invention resides in constructing a wall of blocks arranged in two tiers, which are spaced and between which are arranged intersecting bonding rods, and, in filling in the space between the two tiers with cement or concrete or other suitable plastic composition, which, when it sets, will firmly hold the bonding rods in place.

The invention further contemplates the provision of supporting blocks for the bonding rods, and also for bracing and properly spacing the blocks of the two tiers.

In the accompanying drawings:—Figure 1 is a plan view of a section of a building wall constructed from the blocks embodying the present invention, the wall being shown in its completed form. Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1. Fig. 3 is a similar view on the line 3—3 of Fig. 1.

In the drawings each of the building blocks embodying the present invention, that is, so far as concerns the blocks which constitute portions of the wall other than the corners, is indicated by the numeral 5, in general. Each of the blocks has its body portion indicated by the numeral 6, and one face of the body portion of each block is plane, this being the face which is presented outwardly when the blocks are arranged in tiers in constructing the wall illustrated in Fig. 1 of the drawings. Upon the other face of each block 6 at a point midway of the ends thereof, there is provided an integral thickened portion 7, and upon this portion, between the upper and lower ends thereof, is an outstanding boss 8. It will be understood, from an inspection of the drawings, that the thickened portion 7 of each block extends from the upper to the lower edge of the body of the block, and that the

outstanding boss 8 is of a height less than the height of the thickened portion. Further, that face of the body 6 of the block upon which the thickened portion 7 is formed, is formed at each end with an outstanding boss 9, which is of the same dimensions as the boss 8 and is similarly located as regards the upper and lower edges of the body of the block.

In building up the wall, the first step consists in arranging the blocks in two tiers, one tier constituting an inner wall section, and the other tier constituting an outer wall section, and, when properly arranged, the thickened portion 7 of the blocks of one tier will be located directly opposite the meeting ends of the corresponding blocks of the other tier. In effect, therefore, the building wall, when so far completed, consists of an inner wall section and an outer wall section, the two sections being formed upon their opposing faces with outstanding bosses, which are correspondingly oppositely arranged. It will further be observed from an inspection of the drawings that the bosses 8 outstand to a greater distance than do the bosses 9, owing to the fact that the former are formed upon the thickened portions 7 of the blocks.

After arranging the blocks as above stated, or, rather, as the wall is built up, solid oblong blocks 10 are disposed one beneath the corresponding bosses 8 and 9 of each pair of opposed blocks, and one of such blocks 10 is also disposed upon these bosses, the bosses serving as supports for the blocks. For the sake of convenience, reference will be had to Fig. 2 of the drawings in connection with a more detailed description of the manner of building up the wall. The block 10 which is indicated in this figure by the reference character *a* having been placed in position prior to the disposal of the lowermost blocks 5 in the position shown, the next block 10 above the block *a*, indicated by the reference character *b*, is disposed upon the opposing bosses which, in this instance, are indicated by the reference character *c*, but prior to such arrangement of the block *b*, a bonding rod or wire 11 is placed in position between the opposing bosses *c* and nearer that one of the bosses *c* which is formed upon the thickened portion 7 of one of the blocks 5. The next step in the building operation consists in placing one of the blocks 10, indicated spe-

cifically by the reference character *d*, upon the upper surface of the block *b*, and with ends projecting over the upper end of the thickened portion 7 of that block 5 which is shown in section. Two others of the blocks 5 are then disposed upon the blocks 5 before referred to, but are reversed with respect thereto, as is clearly shown in the said drawings, and this operation is repeated until the wall has been built to the desired height, after which a concrete, cement, or other suitable composition, is poured into the space between the two wall sections afforded by the two tiers of blocks, and, when it sets, forms a filling which is indicated by the numeral 12. It will be readily understood that this filling 12 serves to securely bond the blocks, and it further serves to bond the bonding rods 11 and other rods, which are indicated by the numeral 13, and are disposed vertically between the two wall sections, they being preferably arranged two between each set or vertical series of the blocks 10.

25 The statement heretofore made to the effect that the bosses 9 are of the same dimensions as the bosses 8 is true only so far as regards the height of these bosses, as they are, in reality, of less width, and, as a matter of fact, the bosses at the meeting ends of each two blocks of each tier cooperate to afford a composite boss of the same width as one of the bosses, 8. This construction is clearly shown in Fig. 1 of the drawings.

35 What is claimed is:—

A building wall consisting of an inner and an outer tier of blocks, said tiers being spaced, each of said blocks comprising a body portion formed upon one face and between its ends with a thickened portion, and upon the outer face of its thickened portion with an outstanding boss of less height than the thickened portion, and at a point between the upper and lower ends thereof, each block being further formed upon its said face and at each end with an outstanding boss of the same height as the boss upon the thickened portion block, but being of less width, the blocks of each tier being disposed end to end with the bosses at their ends in registration, the bosses of each block being in a common horizontal plane, the blocks of the two tiers being alternately arranged whereby the bosses at the ends of the blocks of one tier will oppose the bosses between the ends of the blocks of the other tier, blocks disposed beneath and above and extending between the bosses of the blocks of the two tiers, intersecting bonding rods arranged between the tiers, and a filling of plastic material between the tiers embedding said rods.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

HERBERT NOEL PETTIGREW.

Witnesses:

HENRY C. TOOLEY,
H. K. PETTIGREW.