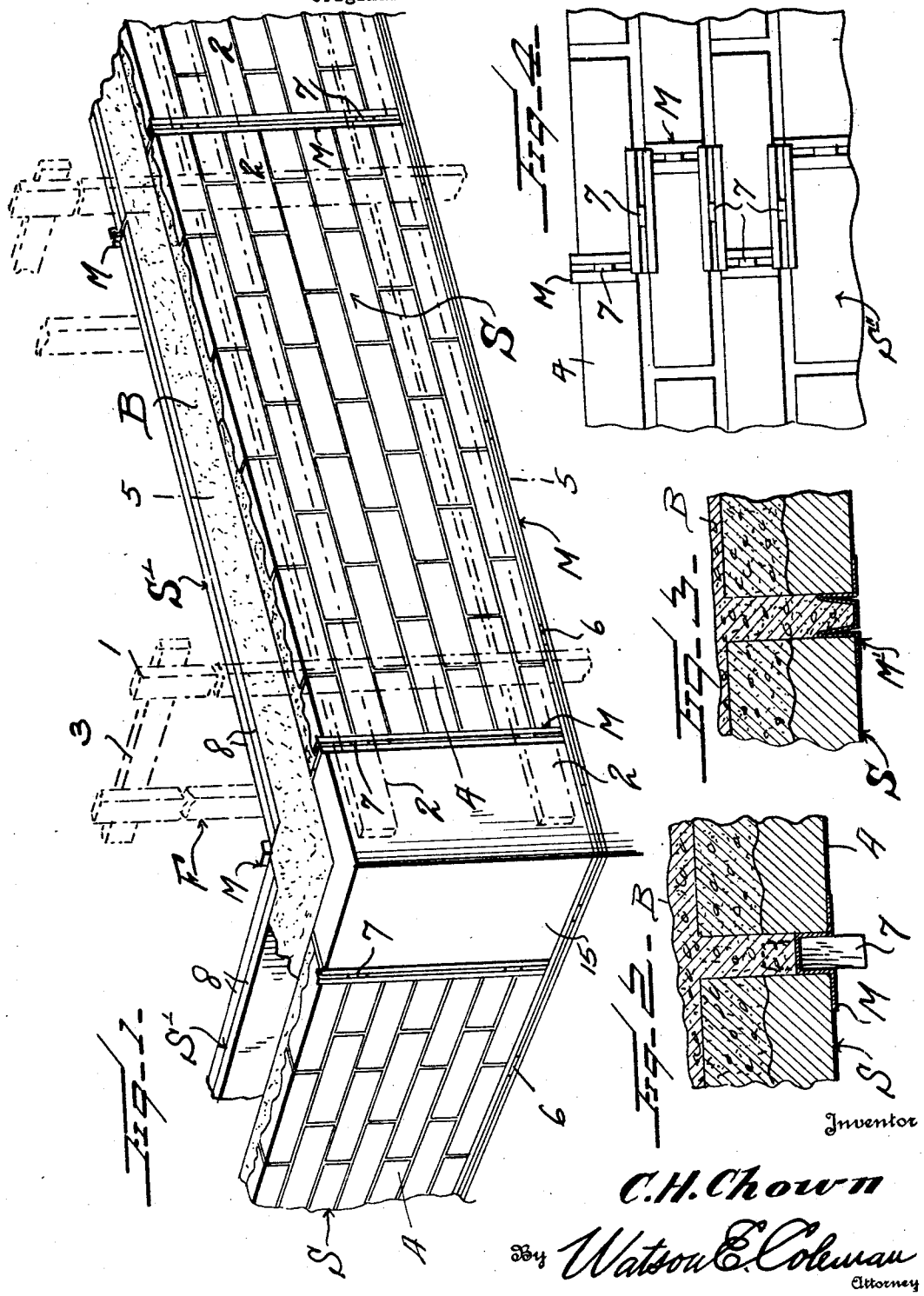
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C. H. CHOWN

WALL STRUCTURE AND METHOD OF BUILDING THE SAME

Original Filed July 30, 1925 2 Sheets-Sheet 1



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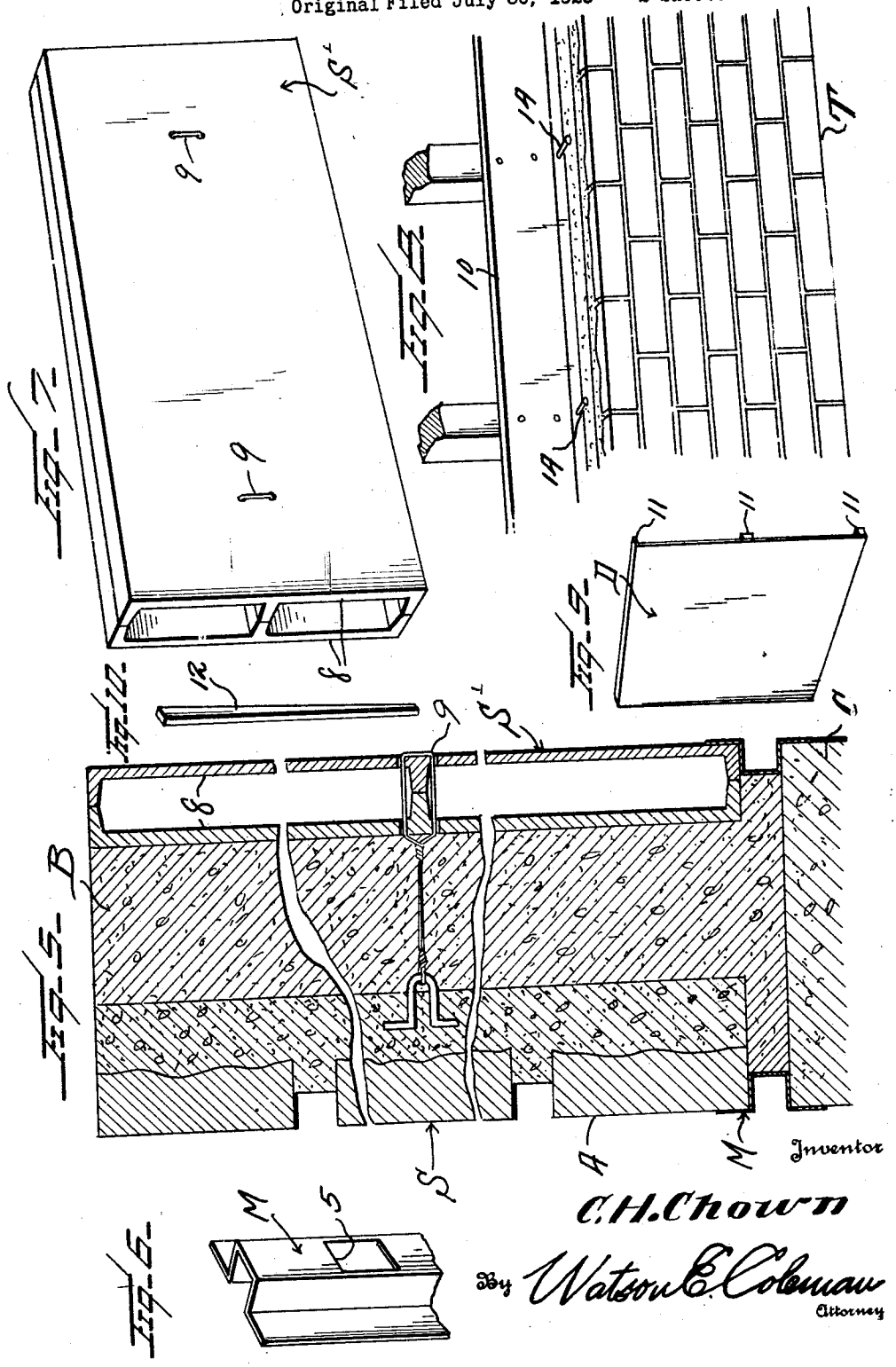
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WALL STRUCTURE AND METHOD OF BUILDING THE SAME

Original Filed July 30, 1925 2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

CHARLES HENRY CHOWN, OF PEORIA, ILLINOIS.

WALL STRUCTURE AND METHOD OF BUILDING THE SAME.

Application filed July 30, 1925, Serial No. 47,095. Renewed September 19, 1927.

This invention relates to certain improvements in wall structures and a method of building the same and it is an object of the invention to provide a means whereby a fireproof wall or building may be built with a material saving in time, labor and material.

It is also an object of the invention to provide a method of building a wall structure embodying the use of slabs together with means for properly assembling and spacing such slabs.

Another object of the invention is to provide a dual wall structure with an interposed filler of suitable composition such as a concrete mixture.

An additional object of the invention is to provide a wall structure constructed in a manner with a material saving in material and labor in making, erecting and wrecking concrete forms.

Furthermore, it is an object of the invention to provide novel and improved means whereby a frame building may be economically veneered with brick, stone or kindred material.

The invention consists in the details of construction and in the combination and arrangement of the several parts of my improved wall structure and method of building the same whereby certain important advantages are attained and the device rendered simpler, less expensive and otherwise more convenient and advantageous for use, as will be hereinafter more fully set forth.

The novel features of my invention will hereinafter be definitely claimed.

In order that my invention may be the better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:—

Figure 1 is a view in perspective illustrating a portion of the wall under construction embodying a brick face, stone corners and an inner hollow wall;

Figure 2 is an enlarged fragmentary sectional view taken substantially on the line 2—2 of Figure 1;

Figure 3 is a view similar to Figure 2 but illustrating another form of metal strip which may be employed;

Figure 4 is a fragmentary elevational view illustrating a further means for effecting a joint between adjacent slabs;

Figure 5 is a sectional view taken substantially on the line 5—5 of Figure 1;

Figure 6 is a fragmentary view in perspective of one of the strips as particularly illustrated in Figures 1 and 2;

Figure 7 is a view in perspective of one of the slabs comprised in the rear wall;

Figure 8 is a fragmentary view in perspective of a brick veneered frame building constructed in accordance with an embodiment of my invention;

Figure 9 is a view in perspective of a metal sheet as employed in the embodiment of the invention as illustrated in Figure 8;

Figure 10 is a view in perspective of a wedge employed between the metal sheet and the sheeting of the structure as employed in Figure 8;

As disclosed in the accompanying drawings, F denotes a false work frame which comprises the vertically disposed struts 1 and the horizontally directed beams or members 2 suitably secured thereto, the upper portions of the struts being connected by the transversely directed members 3. This false work frame is arranged in close contact with the opposite faces of the dual wall structure to maintain such structure plumb and in place until set. It is to be understood, however, that when conditions warrant, the use of this frame may be disposed with.

The face wall comprises a plurality of superimposed tiers of slabs S the outer surfaces of which being faced with brick, stone or otherwise finished as may be preferred. When the slab is faced with brick, as indicated at 4 in Figure 1, the brick may be halved lengthwise whereby a decided saving is effected of such material.

In building a wall, the operation is commenced by placing a metallic strip M upon the foundation C and disposed along the facing line of the wall and superimposing upon the foundation a tier of slabs S of the character and size desired. At predetermined points therealong the strip M is provided with openings 5 through which wedges 6 are inserted and forced between the vertically spaced slabs to hold the slabs at proper height and to hold the metallic strips in place. Wedges 7 are also inserted between the ends of adjacent slabs to effect requisite spacing.

The rear wall of the dual structure is builded in the same manner as the front wall although preferably using hollow slabs S′ and as the front and rear walls progress, the space therebetween has applied therein a filler B of suitable composition, preferably

concrete mixture. After the filler B has set, the wedges 6 and 7 and the strips M are removed, the time of such removal being governed by the condition of the atmosphere which has a great deal to do with the setting of the concrete. The slabs S′ preferably comprise duplicate sections 8 tied or coupled together with the wire ties 9 or the like.

It is to be understood that if preferred suitable reinforcement may be interposed between the front and rear walls of the dual structure which, of course, is properly applied before the filler B.

When plastering is to be applied directly to the rear wall, the slabs S′ will be used but if furring and lath are to be employed then the rear wall preferably comprises half slabs or sections 8 and in place of a metal strip M and the wedges, wood strips are employed said strips being permitted to remain so that the furring may be nailed thereto.

The strip M is also used between the slabs S or S′ to prevent the concrete or the like from running out when being poured. In Figure 2 is illustrated the form of strip M most convenient for a raked joint. In Figure 3 is illustrated a modified form of strip M′ which may be employed if desired.

In Figure 4 is illustrated a form of wall wherein the adjacent ends of the slabs S″ interlock or mesh showing the desired assembly of the strips M and wedges.

As particularly illustrated in Figure 8, I have shown an embodiment of my invention for veneering a frame building. A metal sheet D is placed against the sheathing 10 of the building structure, the inner or rear face of the sheet D being provided thereacross with the flanges or strips 11 to strengthen the same. In practice, the sheets D are suitably positioned upon the foundation of the building structure against the sheathing 10 with wedges 12 interposed therebetween. Suitable slabs T are then arranged in substantially the same manner as hereinbefore set forth with respect to the slabs S or S′ with the resultant intermediate space filled with cement or the like. It is preferred that each of the sheets D be covered with paper as now generally done. After the cement or the like has sufficiently hardened, the wedges 12 and sheets D are removed and the set slabs tied to the frame work of the building in the usual way, preferably with large case nails 14. The sheets D are then placed upon said ties and the building of the wall continued as just described.

In Figure 1, it is to be noted that the outer wall of the building structure may have suitably formed stones 15 or its equivalent of such dimensions as to properly meet the requirements. The slabs S′ may be assembled in a manner to produce a column or a reinforced concrete column may be employed with the slabs S as a facing. The slab of the type shown in Figure 7 may be so formed as to permit its assembly and use in making columns and pilasters in steel or reinforced concrete structures.

From the foregoing description it is thought to be obvious that a wall structure and method of building the same constructed in accordance with my invention is particularly well adapted for use by reason of the convenience and facility with which it may be assembled and operated, and it will also be obvious that my invention is susceptible of some change and modification without departing from the principles and spirit thereof and for this reason I do not wish to be understood as limiting myself to the precise arrangement and formation of the several parts herein shown in carrying out my invention in practice except as hereinafter claimed. As hereinafter claimed it is to be understood that reference to the slabs is intended to include the foundation for the building or other parts with which the slabs proper may coact.

I claim:—

1. A method of constructing a building wall consisting in placing a tier of slabs, disposing a strip along a facing line of said tier, superimposing a second tier of slabs upon the first tier, and then inserting wedges through the strip and between the slabs of each tier to effect the desired spacing.

2. A method of constructing a building wall consisting in placing a tier of slabs, disposing a strip along a facing line of said tier, superimposing a second tier of slabs upon the first tier, then inserting wedges through the strip and between the slabs of each tier to effect the desired spacing, and also disposing strips along the meeting ends of the slabs of each tier and inserting wedges through said strips and between said adjacent tiers to effect requisite spacing.

3. A method of constructing a dual wall consisting in superimposing tiers of slabs to provide a front outer wall and an inner wall, disposing strips along the meeting lines of the slabs, inserting wedges through the strips and between the slabs to properly space the slabs, and pouring a filler between the outer wall and inner wall, the applied strips operating to prevent the filler from running out between the slabs.

In testimony whereof I hereunto affix my signature.

CHARLES HENRY CHOWN.