T. J. GEORGE.

BUILDING CONSTRUCTION.

APPLICATION FILED JULY 14, 1910.

1,013,385.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 1.

Fig. 2.

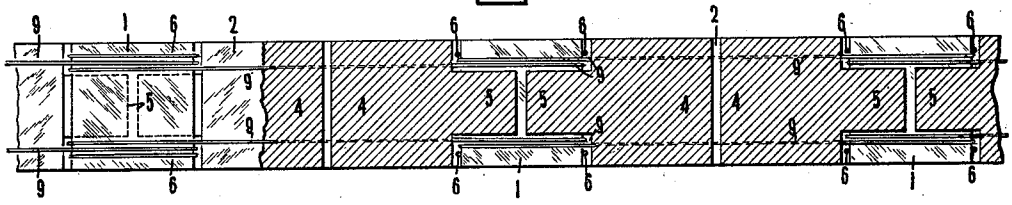
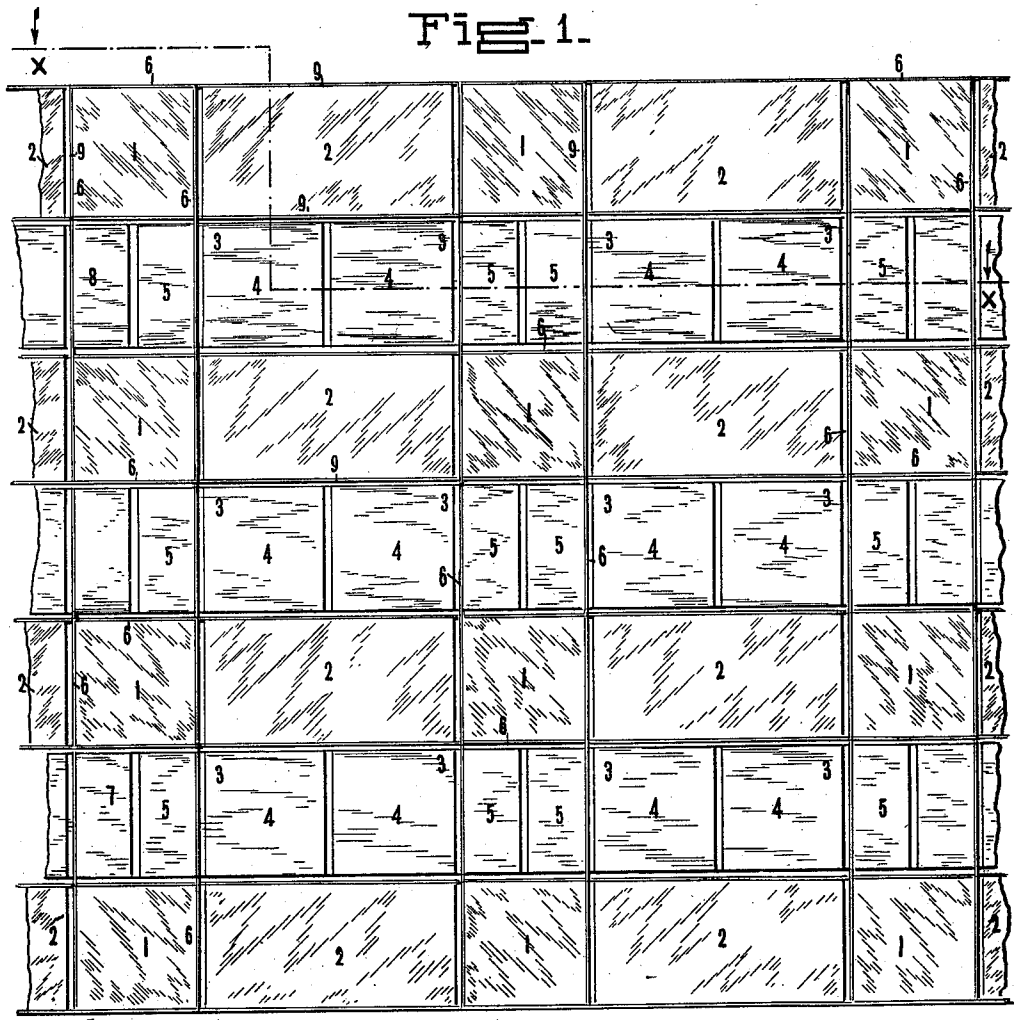


Fig. 1.



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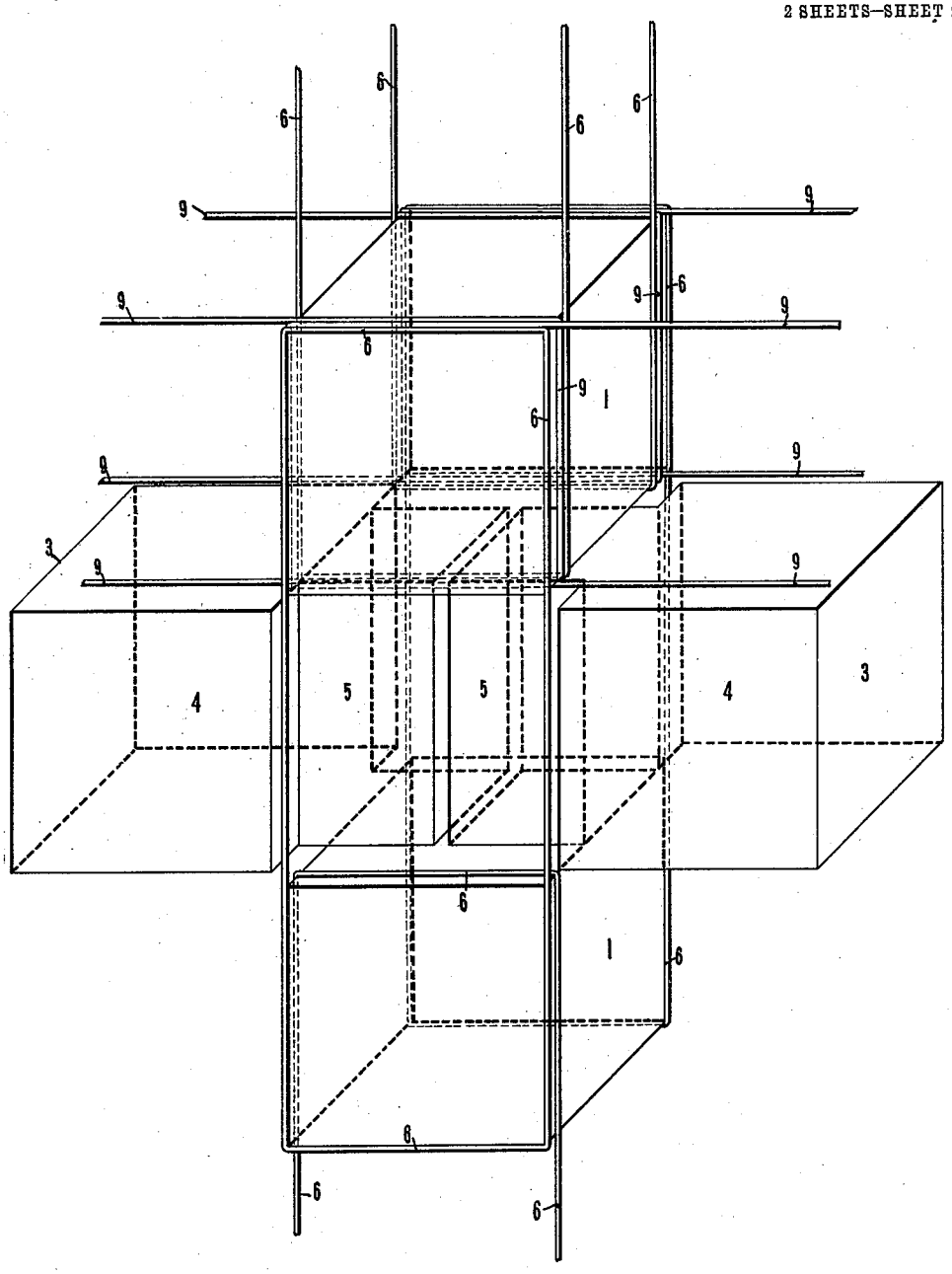

Fig. 3.

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BUILDING CONSTRUCTION.

1,013,385. Specification of Letters Patent. Patented Jan. 2, 1912.

Application filed July 14, 1910. Serial No. 571,965.

To all whom it may concern:

Be it known that I, THOMAS J. GEORGE, a citizen of the United States, residing at Englewood, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Building Construction, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to building construction.

One of the objects thereof is to provide a strong, rigid, upright structure of a substantially fireproof character.

Another object is to provide a simple and practical structure of the above type which may be rapidly and economically erected.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the features of construction, combinations of elements and arrangement of parts which will be exemplified in the construction hereinafter set forth, and the scope of the application of which will be indicated in the following claims.

In the accompanying drawings wherein is shown one of various possible embodiments of this invention, Figure 1 is a front elevation of a wall constructed in accordance therewith; Fig. 2 is a plan view showing a portion of the wall in cross section upon the line *x*—*x* of Fig. 1; and Fig. 3 is an enlarged isometric view showing the arrangement of certain elements of the structure.

Similar reference characters refer to similar parts throughout the several views of the drawings.

In order that certain features of this invention may be more readily understood it may here be noted that in modern building construction there is a large and increasing demand for buildings which are capable of withstanding destruction by fire. In the attempt to meet this demand there have been constructed many so-called "fireproof" buildings, but it has been found that upon the same being exposed to a large conflagration or a fire well under way within them, they cannot be depended upon to resist the same, as even the metal is warped and weakened and the cement disintegrated if exposed directly to the flames, and the walls and columns tend to buckle. The elimination of these defects and others and the provision of a strong, compact and thoroughly fireproof upright element of building construction are among the leading aims of this invention.

Referring to the drawings, there is shown a section of a wall built up in the following manner. A plurality of blocks 1 having substantially square faces and of any desired thickness are spaced apart (in a horizontal direction), and therebetween are laid a plurality of blocks 2 of double the length of the blocks first mentioned, their other dimensions being equal to the corresponding dimensions of the blocks 1. Thus blocks 1 and 2 are arranged alternately with respect to one another, sufficient space being left between them to receive the mortar or other binding material in which they are laid. The first course in the wall structure is thus completed, and above this a second course is erected which comprises a plurality of blocks 3, each of which has a major portion 4 substantially the same in shape and size as the blocks 1 and a minor portion or tongue 5 of reduced thickness, which extends centrally from one side of the said portion 4. These blocks are arranged side by side, the portion 4 of each being adjacent the portion 4 of the next, and having their reduced portions 5 respectively opposed to one another in the same manner. The major portions 4 are placed above and upon the blocks 2 of the first course, but spaced slightly therefrom by the interposed cement or mortar. The reduced portions 5 of blocks 3 are similarly positioned with respect to the blocks 1 in the first course. In this way the wall is carried up to any desired height, the courses alternating after the fashion of the two just described. In order that the structure may have greater rigidity, metallic binding members 6 are disposed about each superimposed pair of said blocks 1, binding the same together and firmly securing the blocks 3 therebetween. There results from this arrangement a series of groups of blocks arranged one above the other, each of said groups comprising a pair of blocks 1 with the interposed reduced ends of the blocks 3. One of these sets may be represented by the reference numeral 7 and another by the reference numeral 8. It will be seen that the members of each group will be bound together and also that the groups 7 and 8 will be mutually tied to-

gether by a tie-member 6, so that the whole assumes somewhat of the character of a pilaster and the wall comprises in its structure a plurality of these pilasters spaced apart by substantially the length of the large blocks 2 which serve to connect the same and hold the ends 4 of the blocks 3 in their proper positions. Two tie-members 6 are provided for each group and are disposed about the same upon opposite sides of the wall from one another.

It will be seen that by forming the blocks 3 with reduced portions 5 recesses are provided wherein the tie-members, after being slipped over the ends of the blocks, may have their respective ends drawn together and joined so as to exert any desired degree of tension upon the inclosed portion of the wall. After the wall is completed these surface depressions or recesses may be conveniently filled by specially shaped blocks, if it is so desired, or with plaster, if the wall is to be finished in that manner. Other tie-members 9 pass about each pair of horizontally offset blocks 1 and the interposed blocks 2, binding the same into groups and mutually binding said groups together so that each vertical column or pilaster is bound laterally to those upon either side thereof, whence it will be seen that the wall is reinforced both in a horizontal and in an upright direction by the various tie-members. It will, of course, be understood that these tie-members 9 are arranged in pairs with respect to each group in the same manner as are the tie-members 6 with respect to the groups which they surround and hold together.

In Fig. 3 a section of the wall is shown comprising a pair of superimposed blocks 1 and the interposed blocks 3. The figure clearly shows the way in which the tie-members 6 and 9 pass about and bind together the various groups, and as well, the members of each group.

It will be understood that the underlying principles of this invention may be employed in the erection of any upright structure such as walls, columns, etc., it being desirable, however, that certain of the blocks composing such structures extend out beyond the surfaces of certain other blocks disposed therebetween, in such a manner that the tie-members may be conveniently slipped over the blocks of each group after the wall or column is erected. It will also be noted that the blocks may be of solid formation, as disclosed in the drawing, or hollow fireproof tile or blocks of any approved design or material may be employed.

From the foregoing it will be seen that the construction described is one in which the several objects of this invention are attained and the above enumerated advantages are, among others, present. The construction is simple, inexpensive and readily assembled, and when in position is not only compact and presents a neat appearance, but it is strong and rigid and well adapted to withstand the severe conditions of practical use.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. It is also to be understood that the language used in the following claims is intended to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention, which, as a matter of language, might be said to fall therebetween.

Having described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, each of a plurality of blocks of one group being included in a plurality of other groups.

2. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, alternate blocks in one group being included in a plurality of other groups.

3. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, the extreme blocks of one group being included in a plurality of other groups.

4. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, a block of one group being included in a plurality of other groups.

5. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, each of a plurality of blocks of each group being included in a plurality of other groups.

6. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, alternate blocks in each group being included in a plurality of other groups.

7. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, the extreme blocks of each group being included each in a plurality of other groups.

8. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, a block of each group being included in a plurality of other groups.

9. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, a block of each group being included in a group offset therefrom in one direction and also in a group offset therefrom in another direction.

10. In building construction, in combination, a plurality of blocks arranged adjacent one another to form an upright structure, and tension members respectively extending about and binding into groups a plurality of blocks, a block of one group being included in a plurality of other groups offset in different directions from said first group.

In testimony whereof I affix my signature, in the presence of two witnesses.

THOMAS J. GEORGE.

Witnesses:
GEO. B. SMITH,
CHARLES LECLERE.