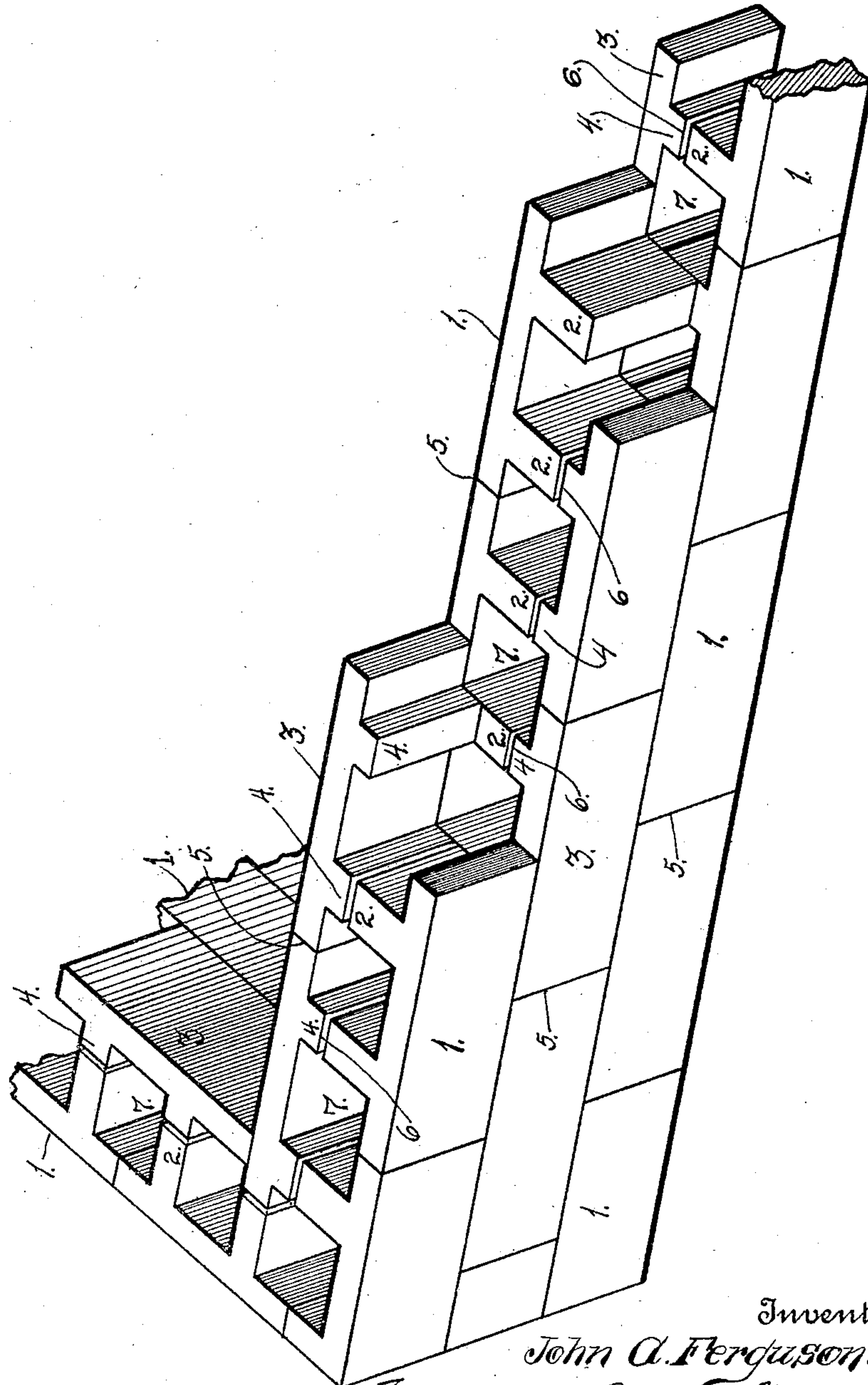


J. A. FERGUSON.
SECTIONALLY SPACED HOLLOW WALL CONSTRUCTION.
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1,298,025.

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SECTIONALLY-SPACED HOLLOW-WALL CONSTRUCTION.

1,298,025.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN A. FERGUSON, a citizen of the United States, residing at the city and county of Denver and State of Colorado, have invented certain new and useful Improvements in Sectionally-Spaced Hollow-Wall Constructions; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in hollow walls of the type embodying parallel spaced wall sections built up of suitably webbed manufactured building blocks.

While such walls, in a large degree, provide for maximum strength and required thickness, they at the same time very materially reduce the cost of construction, and also permit of the proper formation of air ducts or passages, in vertical series, throughout the entire wall, for desired reasons well understood in the art, and without actually weakening the wall structure itself.

As the blocks of these walls generally are more or less analogous in structure in that they consist broadly of a flat base or body portion provided with suitable lateral spacing webs, it may be stated at the outset that, in the instant case, I make no claim to the specific formation of the blocks *per se*, the primary object and advantage of the present invention residing in the combined relation and arrangement of such blocks as associated in the production of a novel wall construction itself, resulting from the manner of so setting the particular type of blocks that each course of the blocks positively bonds all of the vertical jointers of the blocks of the next succeeding courses above and below, both as to the end faces of the adjoining blocks of each wall section and also as to the abutting faces of the spacing webs of the opposed parallel wall sections.

It is immaterial to my present invention, whether or not these building blocks are faced with a veneer or finished imitation surface of stone, marble, or otherwise, as is sometimes done.

The novel essence of the invention will be more particularly and succinctly stated in the appended claims, but to more clearly understand the same, reference is had to the accompanying drawings, forming a part

of this application, in which the single view shows, in perspective, a corner section of a wall built up in accordance with my present invention, with the courses of one wall so terminating as to clearly show the disposition of the blocks of one course relatively to the next succeeding courses.

In carrying out the present invention, blocks of similar design are employed, in that they all have a flat base or body portion and lateral spacing webs, but the base of the blocks 1 are provided with spacing webs 2, which are substantially deeper than the short or shallow webs 4 of the blocks 3.

In the illustration, both sets of blocks are of the double-lug or web type, and while this may be most desirable, from my present actual experience, still it will be obvious, from the disclosure, that I am not so limited in use. Also, it will be seen that, while the webs 2 are very materially longer than the webs 4, all of the webs 2 are of the same depth relatively to each other, and similarly the webs 4 are all of the same dimension relatively to themselves.

In building my novel constructed wall, one course of blocks is laid with the base of the long webbed blocks 1 forming the exterior surface, and the base of the short webbed blocks 3 forming the interior surface of the wall structure, the adjacent blocks of the respective wall sections being cemented together, as usual, the vertical cement joints being indicated at 5, while the end faces of the opposed long and short webs abut each other as indicated at 6, the arrangement providing the air chambers 7.

As the end faces of the webs 2 and 4 are not cemented together, there is naturally provided a more or less restricted air space communication between the vertical air chambers 7, which obviously may be proportionately increased, if desired, by distancing the end faces of the webs slightly apart, without in anywise deviating from my invention.

As illustrated in the drawings, the lowest course is shown with the blocks laid in the aforesaid relation, that is with the blocks 1 forming the outer wall section.

In the next course, the elements of the wall sections are transposed in position so that the base of the short webbed blocks 3 form a part of the exterior wall section, while the base of the long webbed blocks

1 form a part of the interior wall section, with the end faces of the webs abutting, as at 6, near the outer wall body section.

In this connection, I wish to emphasize the fact that I do not merely reverse blocks in the sense of turning the same style of block over in a reversed position, but the block elements are entirely shifted and transposed, like a bodily unit as it were, so that the style of blocks, that formed the bodies of the respective wall sections below, now become, in the course above, component elements of the opposite wall section.

By this novelly combined arrangement of the blocks, the spaces 6, between the end faces of the webs 2 and 4, of the course below, are spanned by the long webs 2 of the blocks 1, in the course above, bonding the sections together from the inner body wall section.

So also, in the next succeeding, or third course shown, the positions of the respective types of blocks are completely shifted or transposed back again, the long webs 2 spanning the joinder spaces 6, from the opposite or outer body section of the wall, in the intermediate or second course just referred to.

It will also be understood that the blocks of the respective wall sections are so laid, as shown, as to break joints with the courses of adjacent blocks.

In addition to this breaking of joints, it will thus be seen that, in every alternate row or course, there is a bonding from opposite sections of the wall, through the long webs 2, co-acting as bonding elements, spanning the spaces 6, in addition to functioning as spacing webs.

With the foregoing complete disclosure, it may be briefly stated that by the employment of my invention a spaced wall struc-

ture is produced, the parallel sections of which are positively and thoroughly interbonded by the wall elements themselves, being anchored or tied to each other from opposite sides in alternate courses, which manifestly insures strength and stability to the structure, thoroughly trussing it, as it were, throughout the whole wall, more evenly dividing the strains and pressure thereon, and guarding against settling and bulging.

I lay no claim to any broad manner of bonding other than encompassed by the scope of my invention as set forth in the ensuing claim, but what I do claim as patently novel, is:—

In hollow wall construction composed of spaced sections, the employment of two sets of building blocks, each comprising a flat base and lateral webs disposed at right angles to and of the same vertical depth as their bases, the webs of one set of blocks being substantially longer than the webs of the other set but of the same lateral length relative to their respective bases, and the bases of the long webbed blocks forming a component part of one wall section while the bases of the short webbed blocks, in the same course, similarly function in the other wall section, with the end faces of the long and short webs disposed in opposed abutting relation, the arrangement of the blocks being so bodily transposed, in successive courses, that the bases of the respective sets of blocks are reversely located, in alternate courses, with the longer webs of an intermediate course functioning as set forth to overlap and bond, from opposite wall sections, the opposed long and short webs of the courses immediately above and below, substantially as described.

In testimony whereof, I affix my signature.
JOHN A. FERGUSON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."