A. C. SPITZNAGEL.

WALL STRUCTURE.

APPLICATION FILED JULY 29, 1907.

952,374.

Patented Mar. 15, 1910.

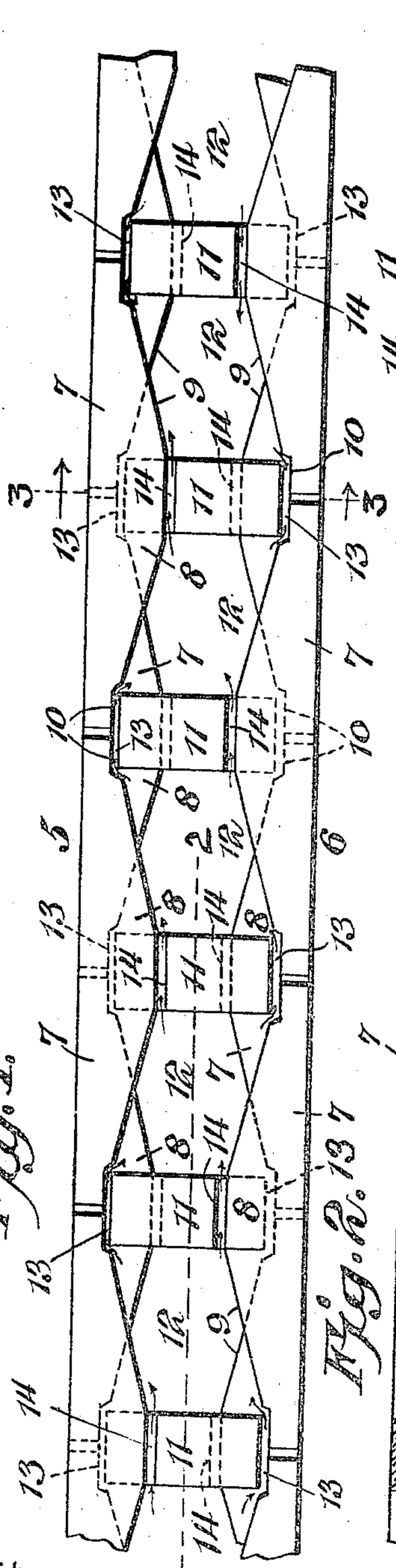

Fig. 1.

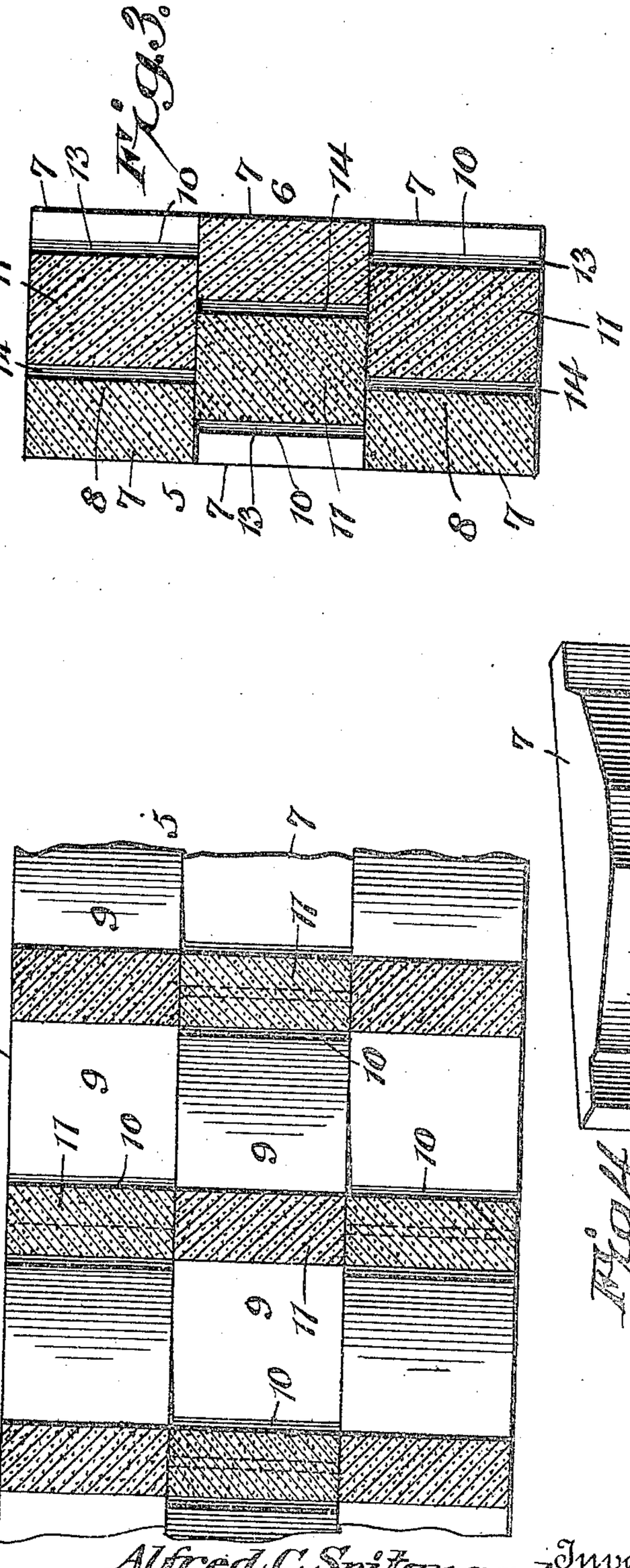

Fig. 3.

Fig. 2.

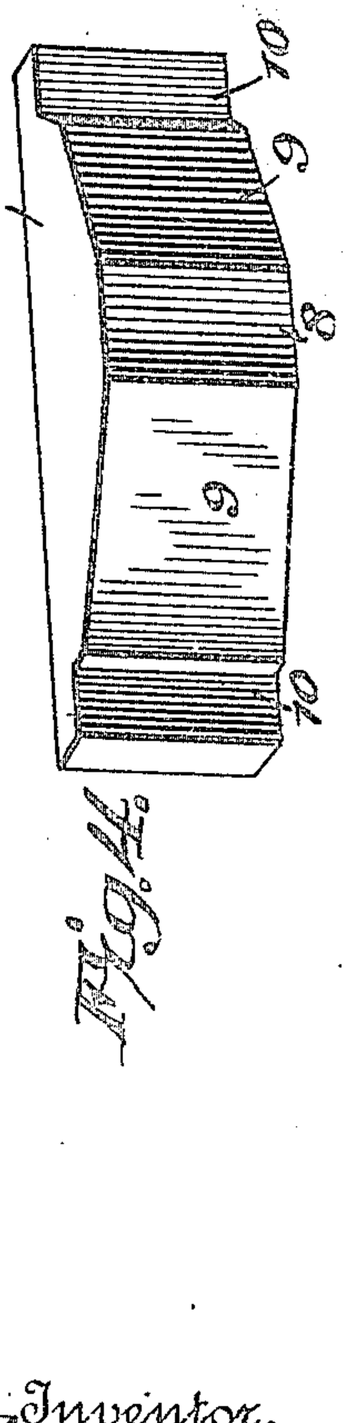

Fig. 4.

Witnesses

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UNITED STATES PATENT OFFICE.

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WALL STRUCTURE.

952,374. Specification of Letters Patent. Patented Mar. 15, 1910.

Application filed July 29, 1907. Serial No. 386,124.

To all whom it may concern:

Be it known that I, ALFRED C. SPITZNAGEL, a citizen of the United States, residing at Springfield, in the county of Greene and State of Missouri, have invented a new and useful Wall Structure, of which the following is a specification.

The present invention relates more particularly to walls constructed of concrete or other blocks, and the principal object is to provide a novel, simple, strong and durable wall that has a comparatively great amount of confined air space, so arranged that the passage of dampness and frost through the wall is effectively prohibited.

An embodiment of the invention that is at present considered the preferable one is illustrated in the accompanying drawings, wherein:—

Figure 1 is a plan view of a portion of the wall structure. Fig. 2 is a vertical longitudinal sectional view on the line 2—2 of Fig. 1. Fig. 3 is a vertical cross sectional view on the line 3—3 of Fig. 1. Fig. 4 is a perspective view of one of the blocks.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

The wall structure, as disclosed, consists of spaced wall sections 5 and 6, each section being composed of blocks 7 laid end to end in superposed courses. The blocks are composed of comparatively thick central portions 8 and taper toward their ends. The front faces of the blocks are preferably flat, and the rear faces comprise oppositely disposed angular portions 9. Thus the ends are reduced in thickness, and the rear sides of the terminal portions are preferably cut away, as shown at 10.

It will be observed, particularly by reference to Figs. 1 and 3, that the joints between the blocks of one course are located directly between the thick intermediate or central portions of the blocks of the courses above and below the same. In other words, the reduced portions of the blocks of one course are located between the thicker intermediate portions of the courses above and below. Moreover the thicker intermediate portions of the blocks of the courses of one wall section are located opposite the associated reduced terminals of the blocks in the corresponding courses of blocks of the other section. Bond blocks 11, having their outer ends fitted between the spaced thickened portions of the courses and in rear of the reduced terminals, as shown in Fig. 1, project into the space between the wall sections. These bond blocks are located in vertical alinement, and thus project alternately from each wall section, terminating short of the inner face of the opposite wall section. The outer ends of the bond blocks 11, clamped between the thickened portions of the wall section blocks, are furthermore spaced from the reduced terminal portions 10 of the wall blocks. As a result, vertical air flues 12 are formed in the walls, and these air flues are in communication with each other through the channels 13 and 14 formed between the ends of the bond blocks and the adjacent faces of the wall sections. At the same time, although the inner ends of the bond blocks terminate short of the wall sections, the projecting portions of said bond blocks are interfitted, as clearly illustrated in Fig. 3, and consequently serve to effectively tie the wall sections together. As a result, a wall is produced, which is strong and durable, and into which moisture or frost cannot pass without striking an air space. At the same time, the elements or units of which the wall is constructed, are exceedingly simple so that they may be readily and cheaply manufactured. While this structure is particularly intended for concrete or blocks formed of cementitious material, it will be evident that it is not necessarily limited thereto.

From the foregoing, it is thought that the construction, operation, and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

In a wall structure, the combination with spaced wall sections, said sections consisting of blocks each having end portions of less thickness than its central portion and laid end to end in superposed courses, the thickened portions of one wall section being respectively opposite the abutting end portions, of the opposite wall section the portions of less thickness of the blocks of one course being located between the thicker

portions of the course above and the course below, of spaced piles of solid and transversely disposed independent bond blocks, each having one end located between and secured by said thicker portions of the wall sections and spaced from the said abutting end portions of the blocks, said bond blocks having their other ends terminating short of the thicker portions of the blocks of the other wall section, thereby forming air spaces between the ends of the bond blocks and the wall sections, the bond blocks of each pile being disposed in a transversely staggered relation with their projecting ends disposed in overlapping relation.

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

ALFRED C. SPITZNAGEL.

Witnesses:

JNO. T. GEARHART,

LAWRENCE C. HING.