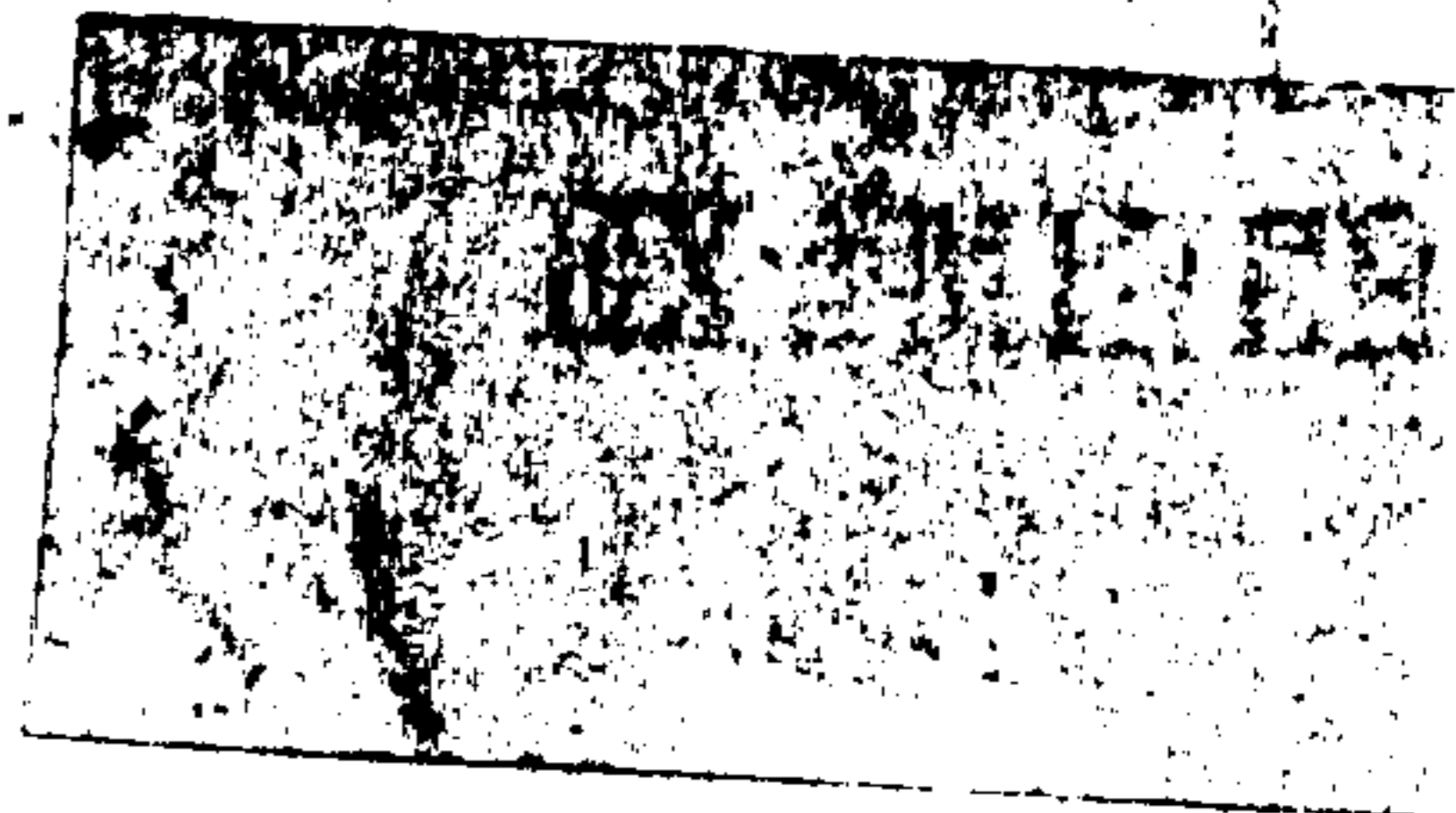


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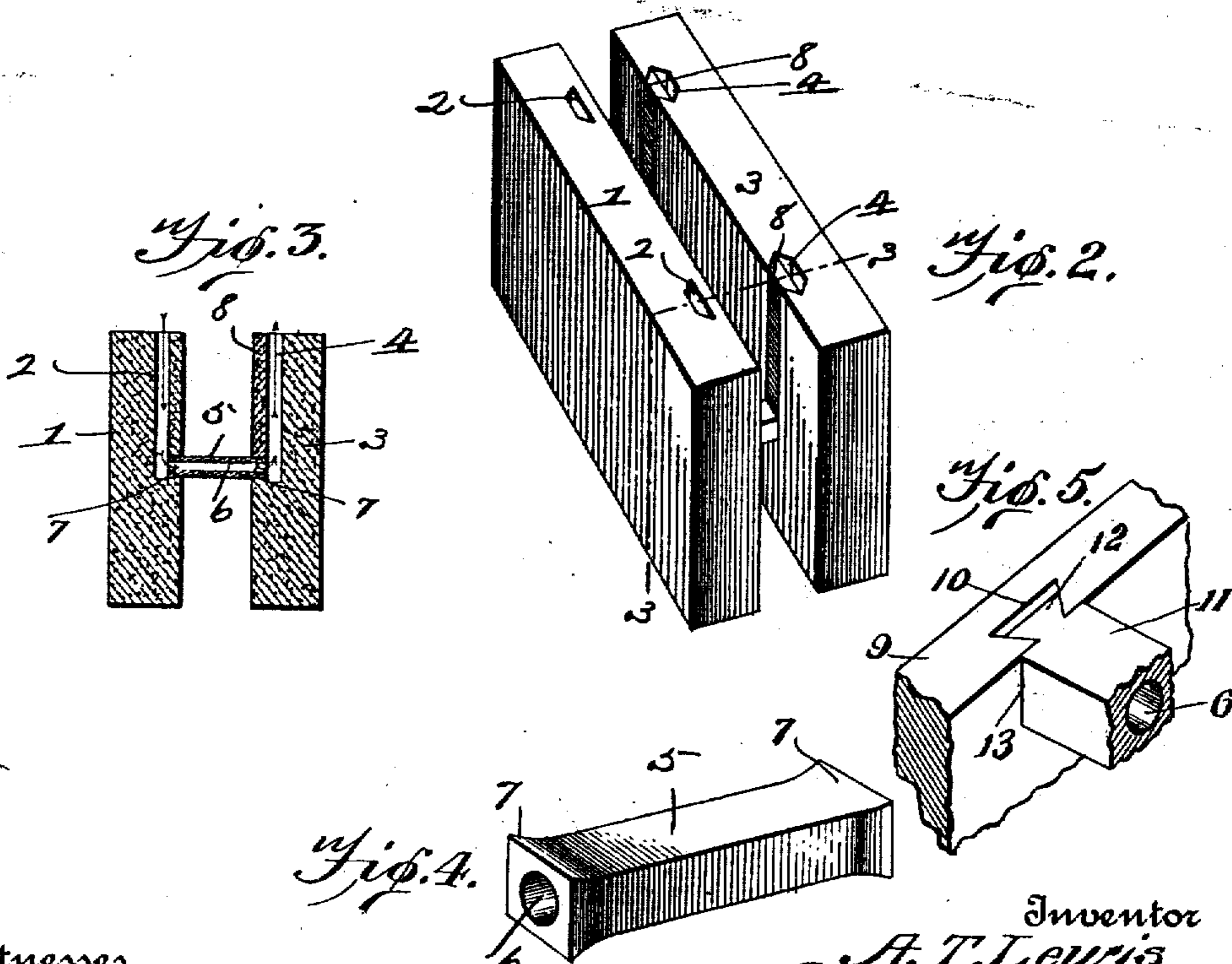
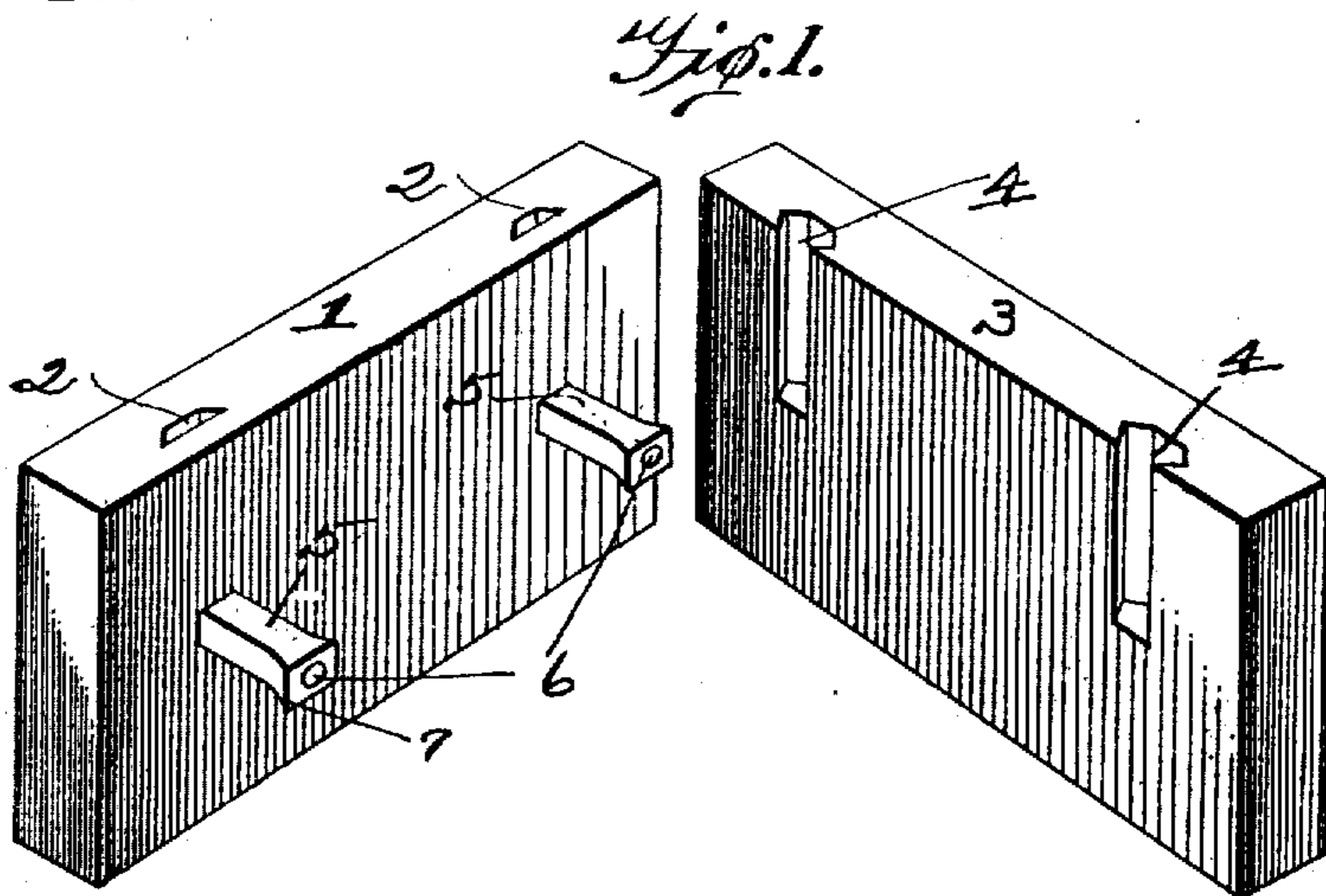


No. 840,071.

PATENTED JAN. 1, 1907.

Johnson, 112925 H T W  
Clarke 27970  
Choquet, 716865 B & T  
Jennings (Eng. Pat.) 8700 91.  
Swisspat. 10026, 1895.

A. T. LEWIS.  
WALL BRACE OR TIE.  
APPLICATION FILED SEPT. 9, 1905.



Witnesses  
Wm. Offutt  
J. B. McBeth

Inventor  
A. T. Lewis  
By *Meacham & Brock*  
Attorneys

# UNITED STATES PATENT OFFICE.

ABRAM T. LEWIS, OF ROCK RAPIDS, IOWA.

## WALL BRACE OR TIE.

No. 840,071.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed September 9, 1905. Serial No. 277,740.

*To all whom it may concern:*

Be it known that I, ABRAM T. LEWIS, a citizen of the United States, residing at Rock Rapids, in the county of Lyon, in the State of Iowa, have invented a useful Improvement in Wall Braces or Ties, of which this is a specification.

This invention relates to a tie formed of a non-conducting and non-corrosive material—such as cement, pipe-clay, or the like—and the object of the invention is a tie adapted to connect adjacent courses of artificial building-blocks, the said courses being parallel to each other and slightly spaced apart to prevent frost from passing from the outer to the inner course of stone.

A further object of the invention is to provide an artificial-stone block provided with recesses or air-chambers and a hollow tie having end portions adapted to enter the recesses in the faces of the blocks and to provide an air-passage or tubular connection between the blocks of adjacent vertical courses.

The invention consists of blocks having air-spaces formed therein and opening through the side of the block and hollow tie-plates connecting said air-passages or chamber in adjacent blocks.

In the drawings, Figure 1 is a perspective view showing the ties in position in one block and a coacting block. Fig. 2 is a perspective view showing the blocks shown in Fig. 1 in position relative to each other and connected by a tie. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a detail perspective view of one of the ties. Fig. 5 is a fragmentary perspective view of a slight modification.

In the drawings, 1 represents a block having vertically-arranged air passages or chambers 2 formed therein and opening upwardly through the upper face of the block and opening at their lower ends laterally through one side of the block. A coöperating block 3 has dovetailed courses 4 formed in its inner face. A tie is provided with a longitudinal bore 6, and the ends of the tie are slightly flanged, as shown at 7. These portions are adapted to engage the dovetailed courses 4. In practice the tie 5 has one end permanently secured in the block 1, the bore 6 communicating with the lower end of one of the courses 4 in the block 3 when the blocks are placed in

position, and the course 4 is then partially filled by a wedge-shaped block 8, whereby the block 3 is provided with an interior air-passage similar to those in the blocks 1.

In Fig. 5 I have shown a slight modification in the form of the block. In this figure 9 represents a block having a dovetailed groove 10 and 11, a tubular tie having a reduced undercut end portion 12, adapted to slide in the groove 10, and provided with shoulders 13, bearing against the face of the block. By means of those tie-plates a circulation of air is permitted between the blocks tied together, and owing to the material of which the ties are made frost will not be carried from one block to the other. An electrical wiring can be run at any point between the blocks without danger of coming into contact with tie-plates of a contacting material.

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

1. The combination with blocks having air-passages therein, of a tubular tie having its end portions secured in the blocks and in communication with said air-passages, the ends of the tie being spaced from the inner sides of said passages.

2. The combination with building-blocks having dovetailed recesses and air-passages leading thereto, of a tubular tie having its end portions adapted to fit said recesses, as and for the purpose set forth.

3. And as a new construction in the art, an artificial stone having an air-passage therein, a tubular tie having one end embedded in said block and in communication with the air-passage, and a block having a groove formed in one face thereof and adapted to receive the free end of the tie.

4. The combination with parallel courses of building-blocks having air-spaces formed in their opposing faces, of a tubular tie adapted to connect said courses, said tie being opened at each end, the end portions of the tie resting in said air-spaces.

ABRAM T. LEWIS.

Witnesses:

H. B. PIERCE,  
E. W. ALLABACH.