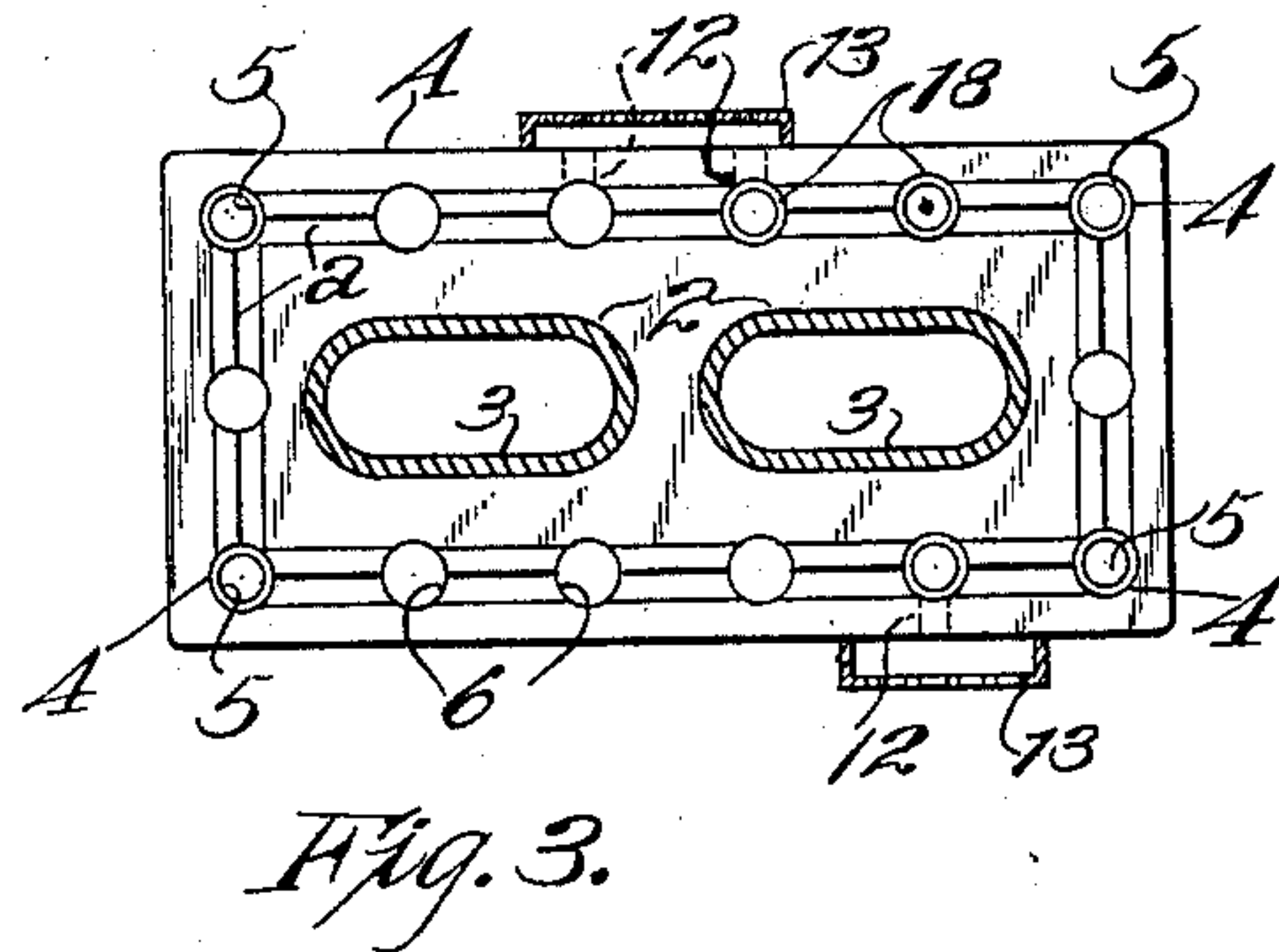
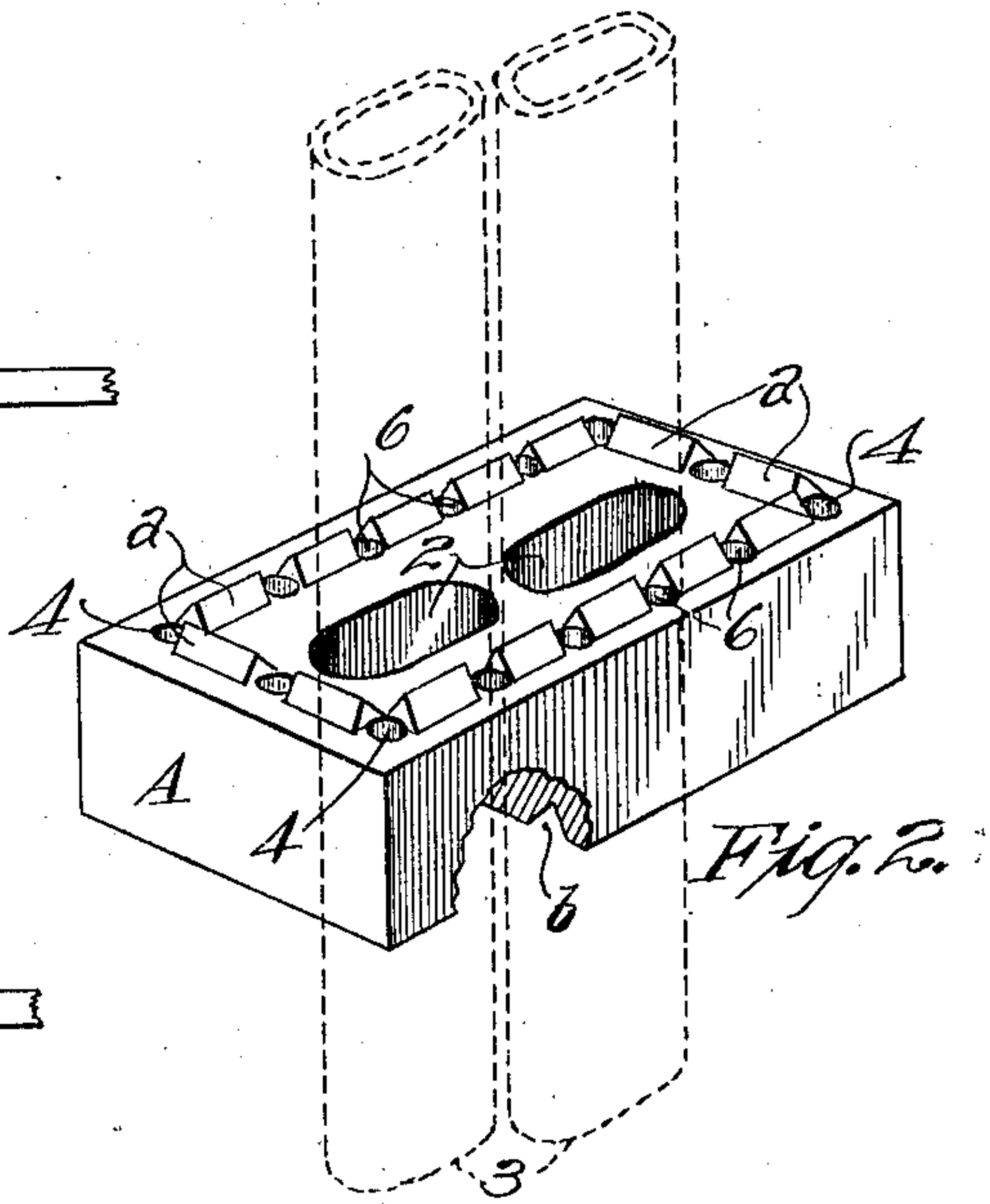
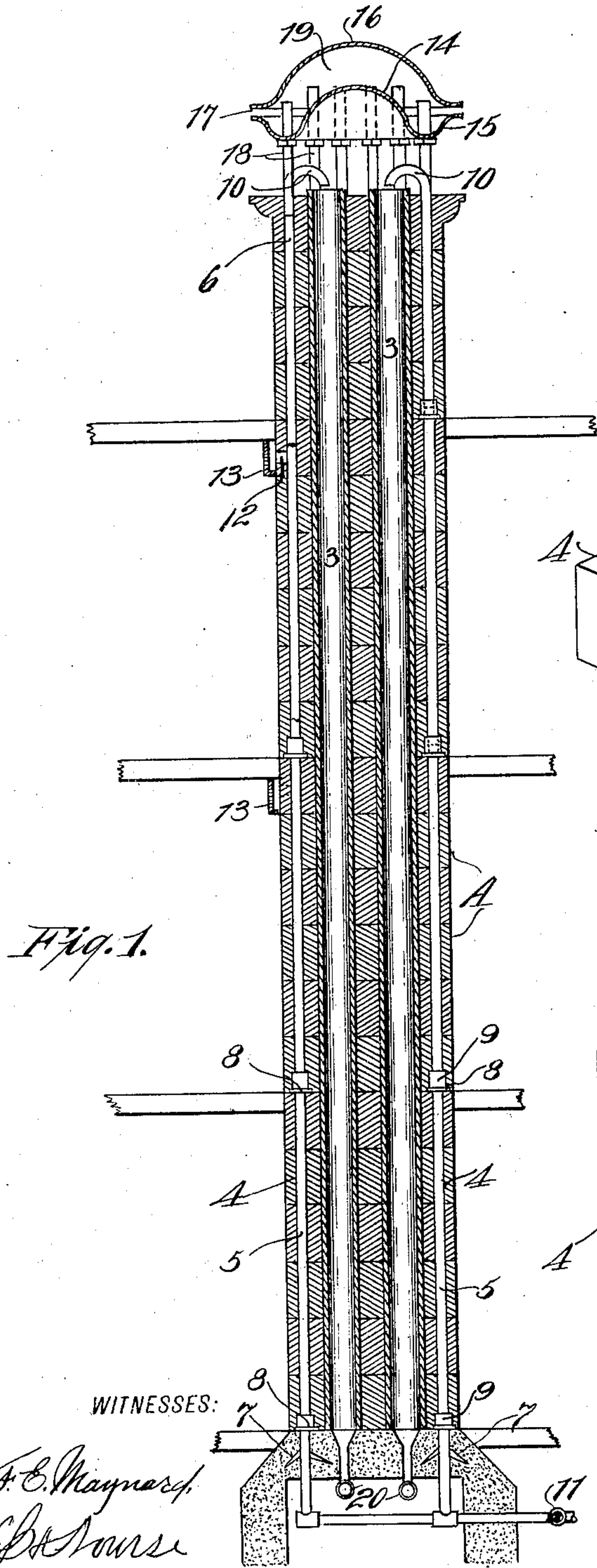


No. 859,616.

PATENTED JULY 9, 1907.

A. REPETTO.  
CHIMNEY CONSTRUCTION.  
APPLICATION FILED AUG. 9, 1906.



WITNESSES:

*G. E. Maynard*  
*Chas. Morse*

INVENTOR  
*Andrea Repetto,*  
BY  
*Geo. H. Strong*  
ATTORNEY



# UNITED STATES PATENT OFFICE.

ANDREA REPETTO, OF SAN FRANCISCO, CALIFORNIA.

## CHIMNEY CONSTRUCTION.

No. 859,616.

Specification of Letters Patent.

Patented July 9, 1907.

Application filed August 9, 1906. Serial No. 329,808.

*To all whom it may concern:*

Be it known that I, ANDREA REPETTO, a citizen of Italy, residing in the city and county of San Francisco and State of California, have invented new and useful  
5 Improvements in Chimney Constructions, of which the following is a specification.

My invention relates to building construction, and especially to improvements in chimneys. Its chief objects are to provide a chimney which shall be earth-  
10 quake proof; which shall have air passages for carrying off the foul vapors from basements and rooms of buildings; which shall have means for purifying these vapors before allowing them to escape to the outer air; which shall have hollow columns running lengthwise of the  
15 chimney and serving both to bond the component elements of the structure together and to serve as stand-pipes for water, the pipes being adapted to open into the flues in such way that in case the chimney catches on fire the water can be quickly turned on to quench  
20 the blaze.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

25 Figure 1 is a vertical section through the chimney. Fig. 2 is a perspective view of a member. Fig. 3 is a plan view of same, with parts in section.

The chimney may be made of artificial stone, like granite or marble, plain, hewn, or polished in imitation of granite, marble, or any other kind of stone that  
30 can be imitated. It may be made of blocks of concrete of any size and shape,—square, rectangular, polygonal, etc., and may be carried to any height. The chimney may also be made of one piece if desired. The blocks  
35 may be made plain or ornamental, provided with landscape or figures, and bas relief.

In the construction of my improved chimney I prefer to use a block A, such as shown in Fig. 2. This block is provided with one or more flues 2 which may  
40 be lined with terra cotta, sheet iron or other suitable material as indicated at 3. The block is perforated at the corners, or any other suitable points as shown at 4 for the passage of the vertical hollow columns or pipes 5, Fig. 1. Beside the perforations 4 are the vertical  
45 air flues or passages 6.

The upper face of each block is provided with a surrounding bead or shallow rectangular tongue *a* arranged in line with and intersected by the holes 4—5; and the under side of each block has a corresponding continuous  
50 groove *b* to receive the bead or tongue *a* on succeeding block below. Thus one block matches nicely into another and all the blocks in the column are firmly united against any independent lateral movement. The inside top and bottom beading and grooving, is easy to  
55 produce in the manufacture of the bricks or blocks. Besides by leaving the full end and side areas of the

blocks they look from the outside like any ordinary block; the interlocking means being entirely hidden from view. In the construction of the chimney these blocks are placed one on the top of the other and made  
60 properly to interlock; the blocks being suitably bonded together by a filling of mortar or cement. The air flues 6 are adapted to register with one another, and the hollow columns or pipes 5 which pass through the perforations of the column; and the lowermost of the pipes 5  
65 are provided with suitable anchor means as the barbs or flukes 7 by which the said pipes are suitably anchored in the foundation. The pipes 5 are preferably in sections; each section having a length corresponding about to the height of six blocks. Having placed a number of  
70 blocks in position corresponding approximately to the length of a pipe section, a metal plate 8 is slipped over the end of the section and the nipple or union 9 by which succeeding pipe-sections are united, is screwed on over the already emplaced section and down on its  
75 plate 8; thus serving as a nut on the pipe to lock the plate in position and lock all the blocks below into a rigid structure. The succeeding section of pipe is then screwed into the nipple and the building operation goes on as before until the end of this section of pipe is  
80 reached, when another plate 8 is put on, a nipple is screwed down on to it and the work goes on as before.

When the chimney has reached a sufficient height an elbow portion 10 is screwed into the last nipple in continuation of a corresponding pipe section or hollow  
85 column with the elbows turned so as to discharge into a smoke flue 2. The several pipes are connected in any suitable manner and at any proper point with the water main, and the flow to and through the pipes may be controlled by a cock, as indicated at 11. If desired the  
90 pipes may be maintained full of water so as to assist in keeping the chimney cool. At suitable points in the height of the chimney certain of the blocks A may have lateral openings 12, opening into either the basement or into any of the rooms on the different floors, through  
95 or adjacent to which the chimney passes. These openings may be provided with ventilators as indicated at 13.

The chimney is capped by a suitable cowl 14, which is preferably of dome shape with its edge upturned to form an annular trough 15 to contain any suitable disinfectant medium. Above the cowl is arranged a covering or hood 16, which has its lower edge separated by a small space as 17 from the outer edge of the cowl 14. Pipes 18 extending upward from the air passages 6 in the chimney open into the space 19 inclosed by the  
100 cowl and hood. The heat from the smoke flues create not only a circulation through the air flues but also acts to destroy such germs as are withdrawn from the chambers below.

The water pipes or columns, serve three purposes: 110  
(1) to bond the blocks of the chimney together; (2) to reduce the temperature of the flues, (3) and to serve as



stand pipes whereby one or more columns of water may be discharged instantly into the flue, in case of fire. The bottom of the smoke flues may have suitable outlets as shown at 20 for the water.

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

1. An improved chimney construction consisting of blocks seated one on the other in vertical order, said blocks having two series of holes through them with the holes of each series adapted to register, both series of holes being made through the body of the blocks, and one of said series of registering holes forming a flue, tubular sections passing through the other series of registering holes, washers loosely fitting said sections and seated on the blocks and nipples for uniting the ends of said sections and acting against said washers, said tubular sections, nipples and washers serving to bond the blocks of

the chimney together and act as a fluid conductor, and fluid connections with the bottom of the sections.

2. An improved chimney construction consisting of building blocks laid in vertical order and having registering holes forming a continuous flue, said blocks having other registering openings made through them and tubular sections passing through said other openings and bonding the blocks together, threaded nipples between the adjacent ends of said sections, some of said sections extending to a point above the top of the chimney and having return bends discharging into said flue, the lowermost of said sections having barbs or flukes by which they may be anchored in the foundation of the chimney.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ANDREA REPETTO.

Witnesses:

GEO. F. CAVALLI,  
ANGEOLUIA CAVALLI.