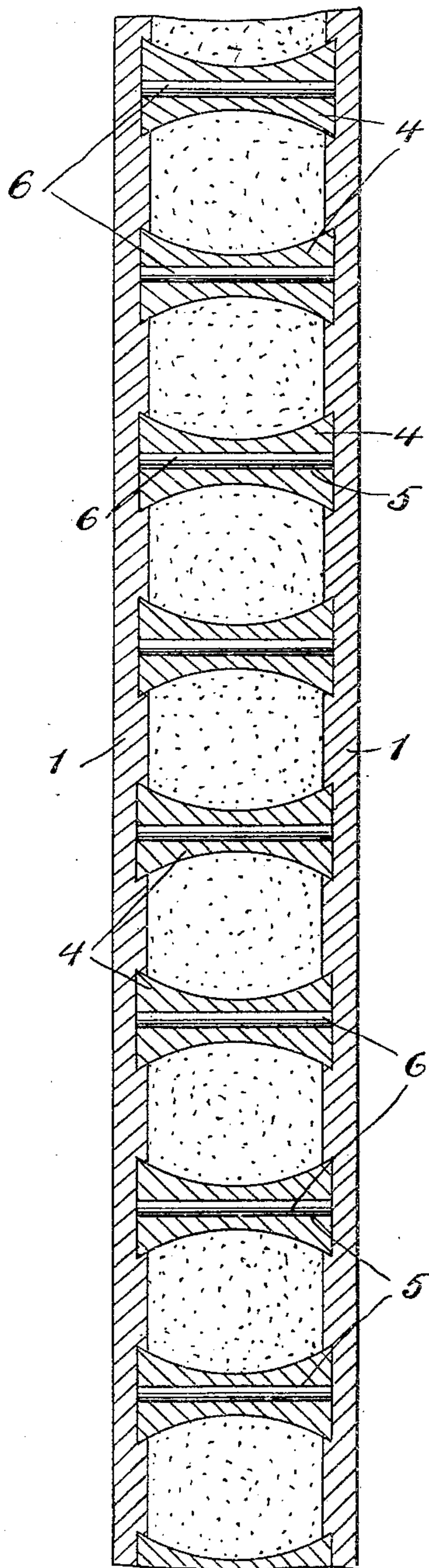


M. D. MURRAY.  
PERMANENT CONCRETE FORM.  
APPLICATION FILED SEPT. 2, 1908.

929,969.

Patented Aug. 3, 1909.  
2 SHEETS—SHEET 1.

*Fig. 1.*



Witnesses

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Fig. 2.

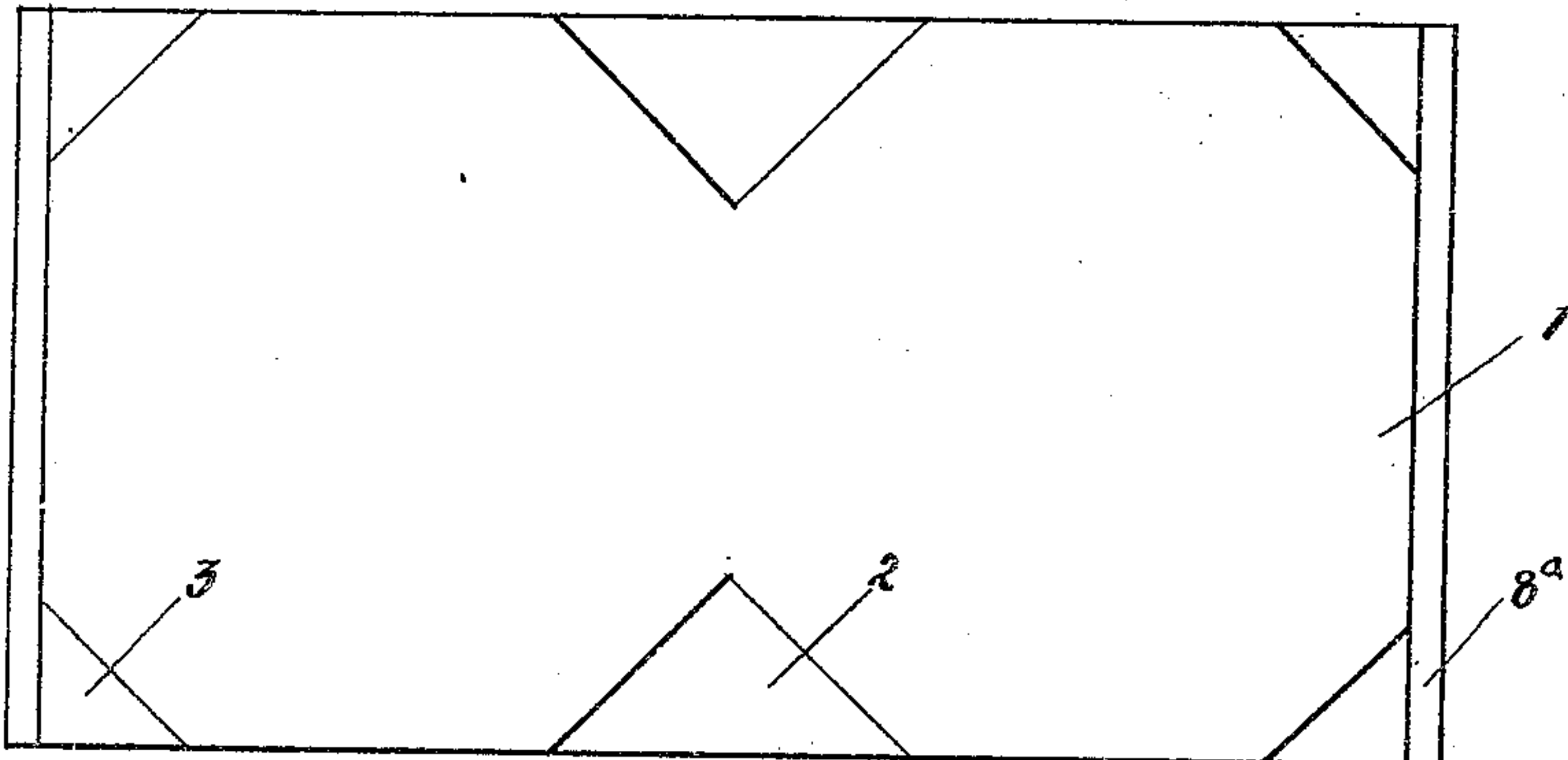


Fig. 3.

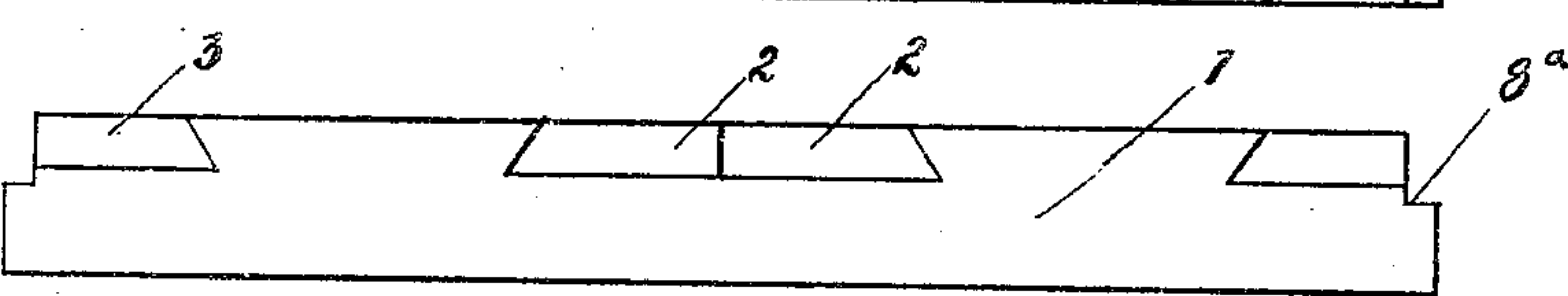


Fig. 4.

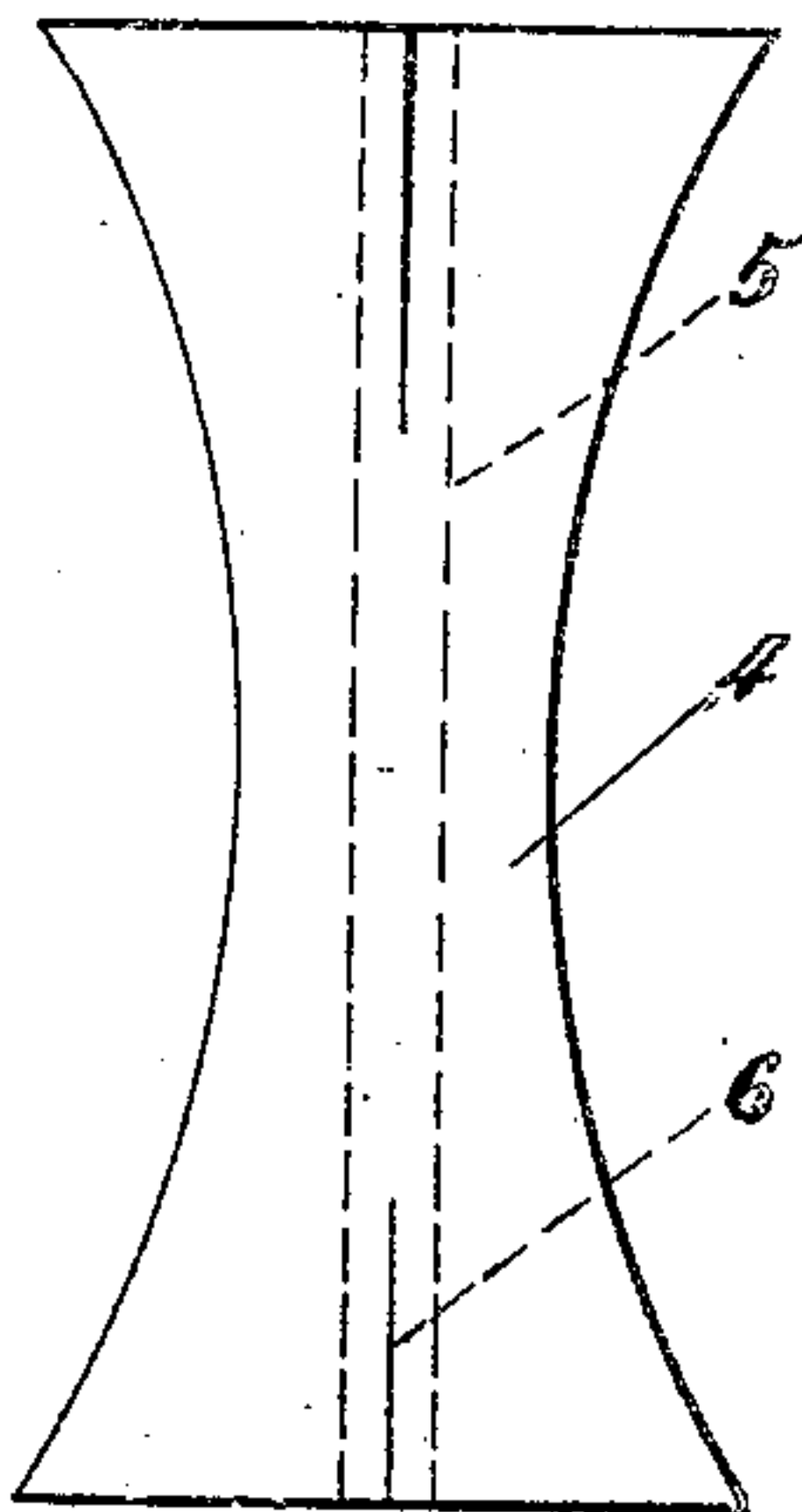


Fig. 6.

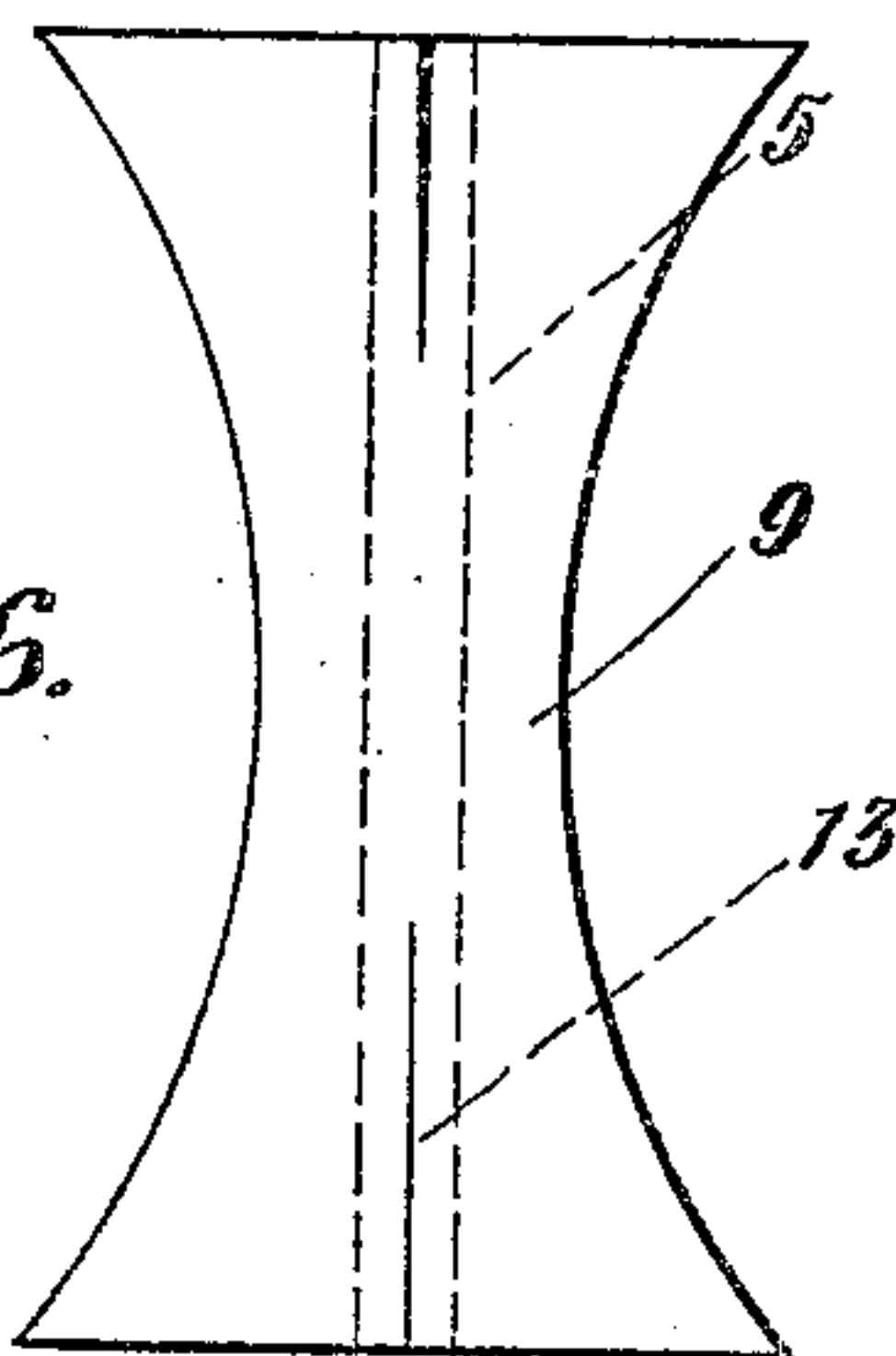


Fig. 5.

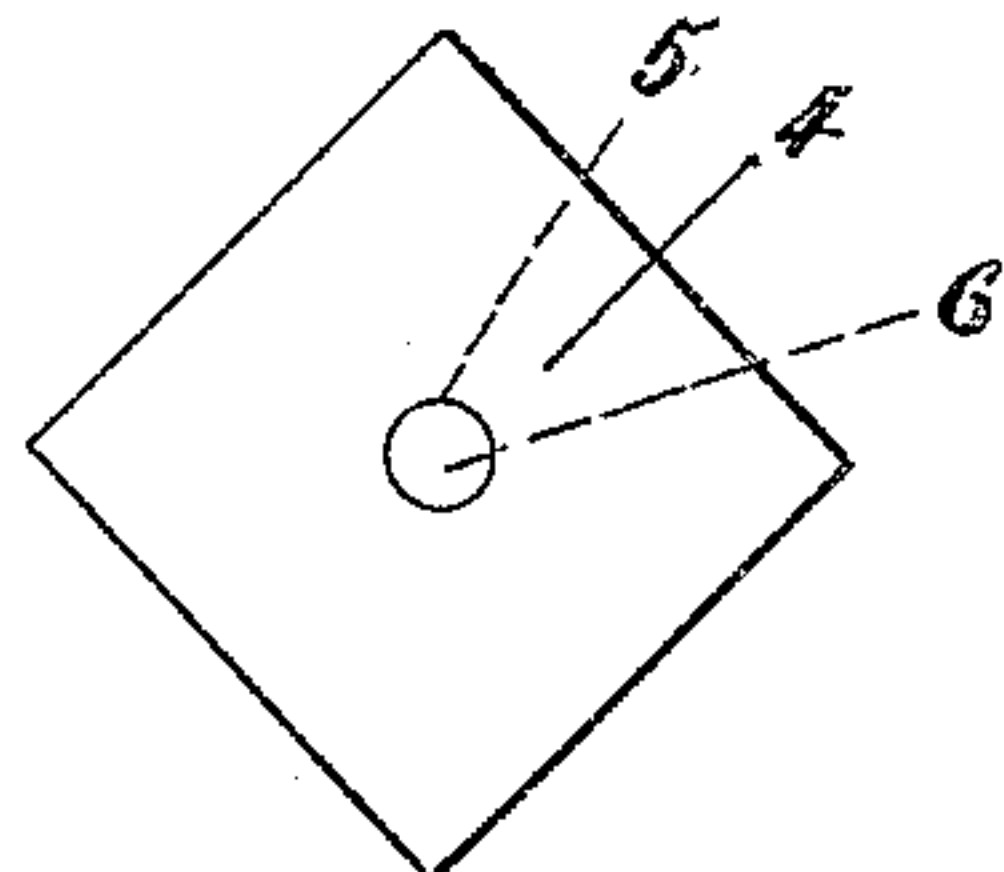
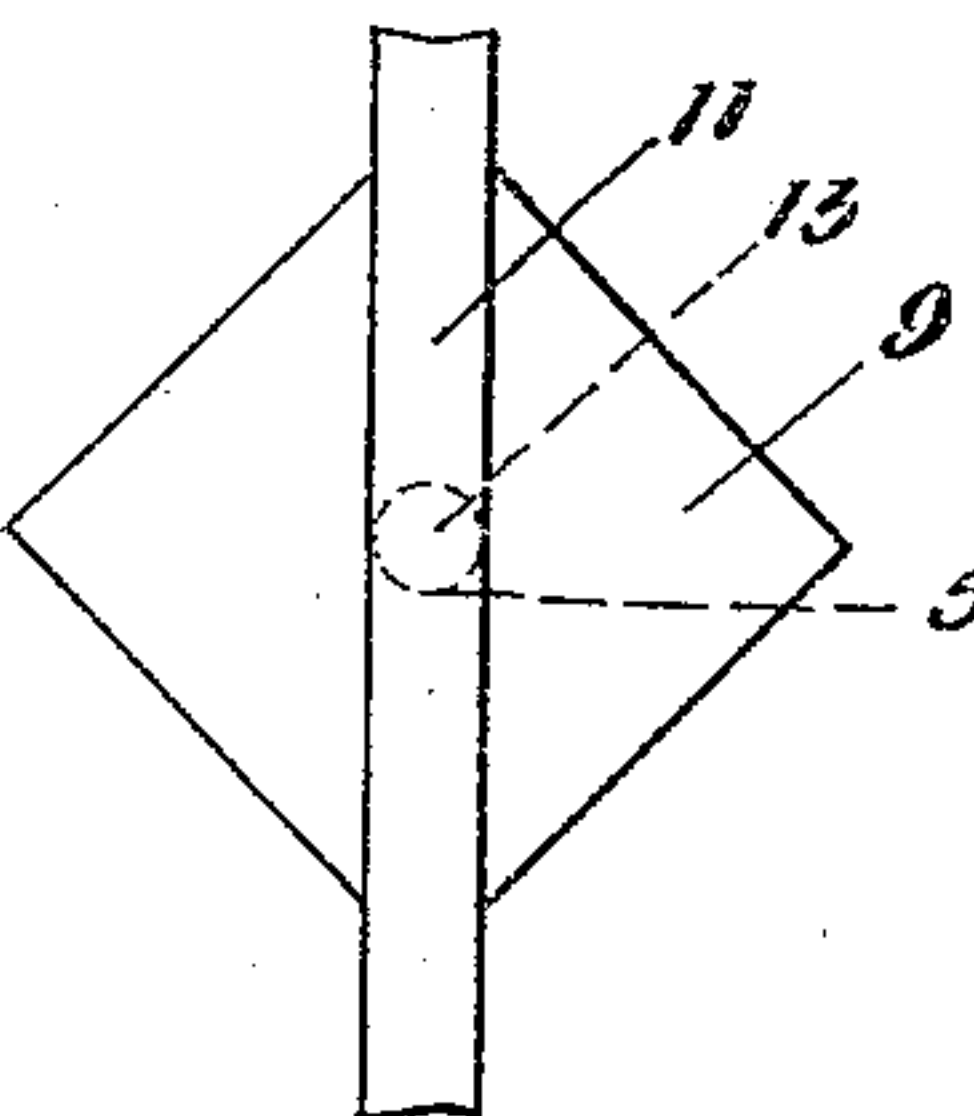


Fig. 7.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## PERMANENT CONCRETE FORM.

No. 929,969.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed September 2, 1908. Serial No. 451,427.

*To all whom it may concern:*

Be it known that I, MICHAEL D. MURRAY, a citizen of the United States of America, residing at West Homestead, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Permanent Concrete Forms, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to permanent concrete forms for building, and the primary object of my invention is to provide in a manner as hereinafter set forth a form that can be easily and quickly constructed to receive concrete and form a solid and rigid wall.

Another object of my invention is to provide means in a manner as hereinafter set forth to obviate the necessity of using lumber forms in the construction of a building, the lumber forms requiring time and labor to assemble, expense, and preventing the concrete from drying out as rapidly as desired.

A further object of my invention is to provide in a manner as hereinafter set forth a strong and durable concrete construction for walls, floors and similar structures.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, to be presently described, and then claimed.

In the drawings, Figure 1 is a vertical sectional view of a portion of a wall in accordance with this invention, Fig. 2 is a rear elevation of a concrete slab, Fig. 3 is an edge view of the same, Fig. 4 is an elevation of a coupling member for a plurality of slabs, Fig. 5 is an end view of the same, Fig. 6 is an elevation of modified form of coupling member, Fig. 7 is an end view of the same.

To put my invention into practice, I provide a plurality of concrete rectangular slabs 1, these slabs have one face thereof, constituting the inner side of the slab, provided with V-shaped dovetailed recesses 2, located intermediate the ends of the slabs at the longitudinal edges thereof and in plan, representing a triangular configuration. The corners of the slab 1 upon the inner side thereof, are provided with V-shaped dovetailed recesses 3, corresponding in area to half of the recesses 2, whereby when a plurality of slabs are assembled, edge to edge, a plurality of

rectangular dove-tailed sockets will be provided equally spaced apart.

As a binder for two walls constructed of a plurality of slabs as above described, I use coupling members or pieces 4 which are constructed of concrete or cement. These coupling pieces have cylindrical concave bodies terminating in the rectangular ends adapted to fit in the recesses 2 and 3, the coupling pieces being placed in position as a wall is constructed. Each coupling piece is provided with a central bore 5 for a metallic strengthening pin 6.

The coupling pieces 4 can be made of various lengths for walls of various widths, it being the present practice in the construction of a concrete building to gradually reduce the width of the wall as stories are added. In Fig. 1 of the drawings, I have illustrated a reduction in the wall width between the first story and second story. After the slabs have been assembled and connected by the coupling pieces 4, concrete of the usual mixture is placed between the slabs of the two walls, to form a solid and rigid structure. The outer or exposed surface of the slabs can be finished to represent a rock, marble, tile or crandall appearance, with the joints of said slabs pointed.

The contour of the coupling pieces facilitates the binding of the slabs to concrete, and as rapidly as the slabs can be assembled the concrete can be poured and the construction of a house or building accomplished with considerable rapidity.

While in the drawings forming a part of this application, there is illustrated the preferred embodiments of my invention, I would have it understood that the elements thereof can be varied or changed, as to the shape, proportion, and manner of assemblage, without departing from the scope of the invention.

Having now described my invention, what I claim as new, is;—

1. In building construction, a wall formed of an inner and an outer section spaced from each other, each of said sections consisting of a plurality of slabs each having the marginal portion of its inner face at both edges provided with V-shaped recesses, the slabs of each section arranged edge to edge whereby the recesses of one slab will register with the recesses of the other slab to provide a plurality of sockets, coupling pieces for connect-



ing the sections together, said coupling pieces having the ends thereof engaging in opposing sockets of said sections, the intermediate portions of said coupling pieces being  
5 reduced, and reinforcing rods extending through said coupling pieces.

2. In building construction, a wall formed of an inner and an outer section, each of said sections consisting of a plurality of slabs  
10 each having the marginal portion of its inner face at each edge provided with V-shaped recesses, the walls of said recesses being inwardly beveled, said slabs of each section arranged edge to edge whereby the recesses of

the slabs will register to provide a plurality 15 of dove-tailed sockets, coupling pieces for connecting the sections of the wall together, said coupling pieces having dove-tailed ends engaging in said dove-tailed sockets, the intermediate portions of said coupling pieces 20 being reduced, and reinforcing rods extending through said coupling pieces.

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

MICHAEL D. MURRAY.

Witnesses:

PAT O. GARA,  
C. V. BROOKS.