L. RIBEREAU Y MARTEAUX.

INTERLOCKING CELLULAR BUILDING BLOCK.

APPLICATION FILED APR. 29, 1908.

958,413.

Patented May 17, 1910.

3 SHEETS—SHEET 1.

Fig 1

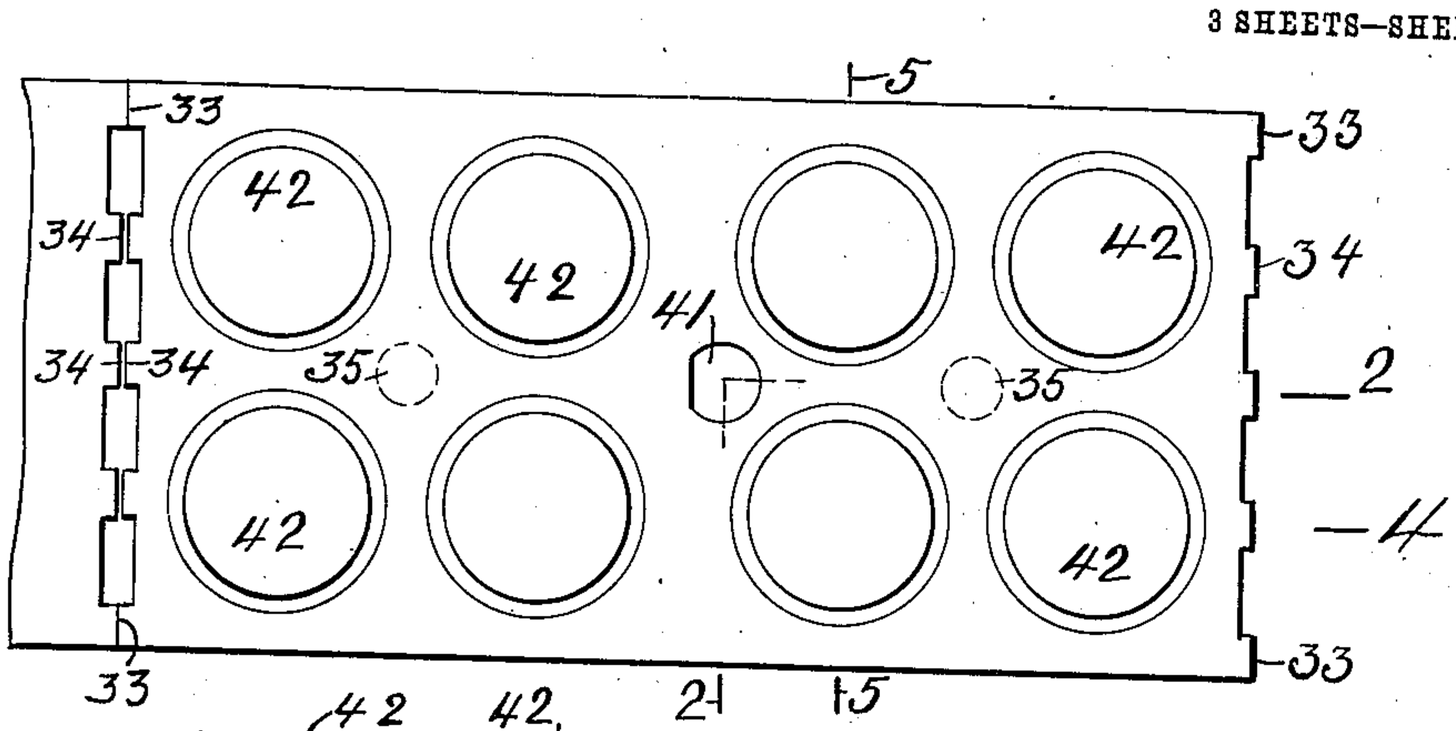


Fig 2

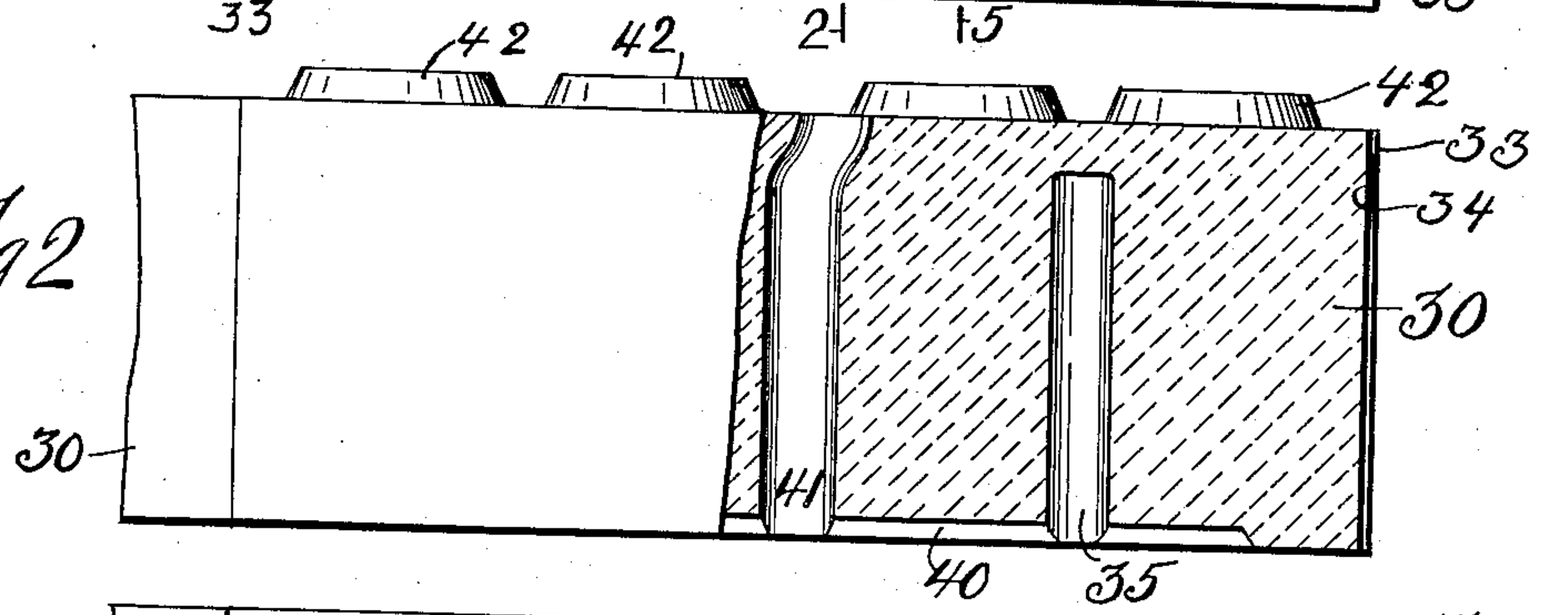


Fig 3

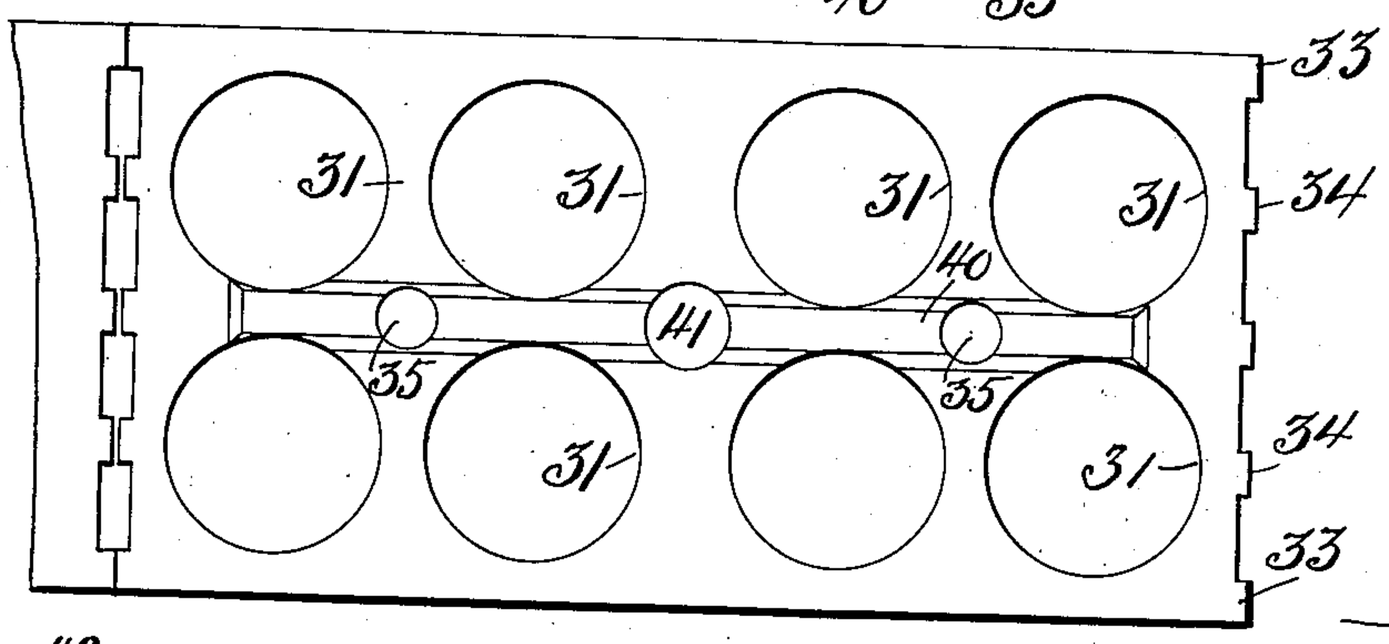


Fig 4

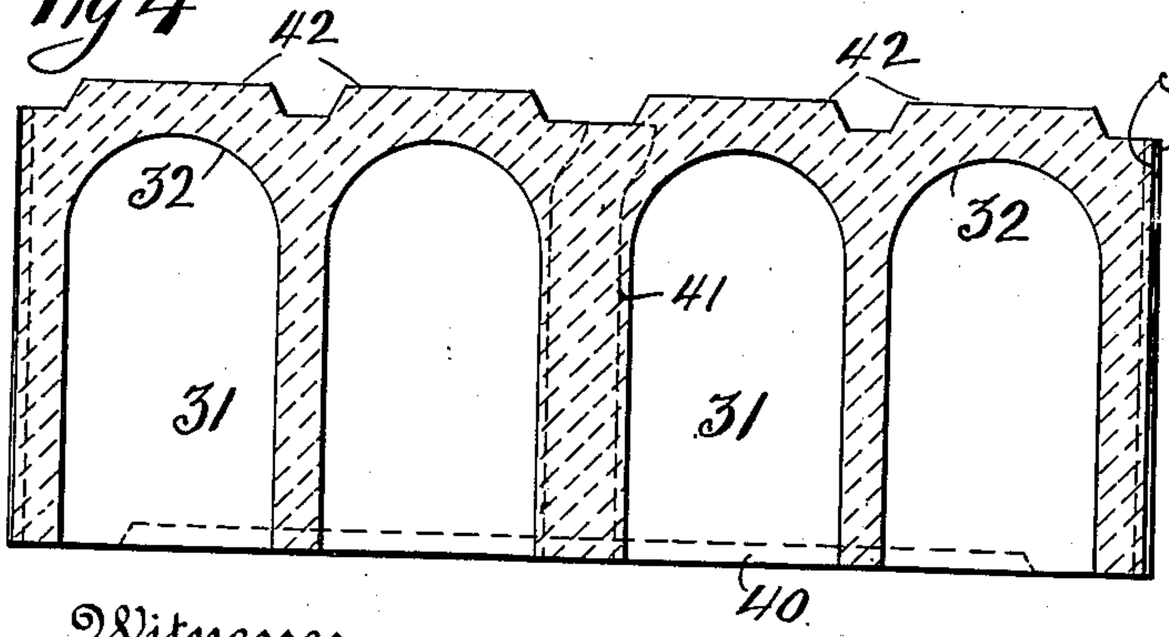
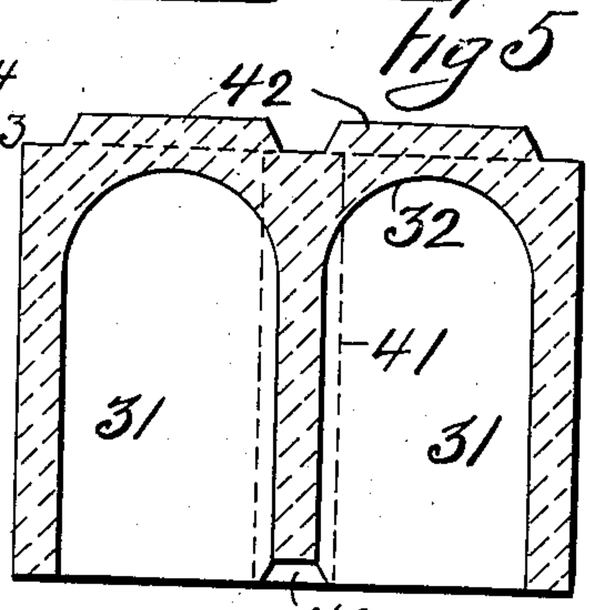


Fig 5



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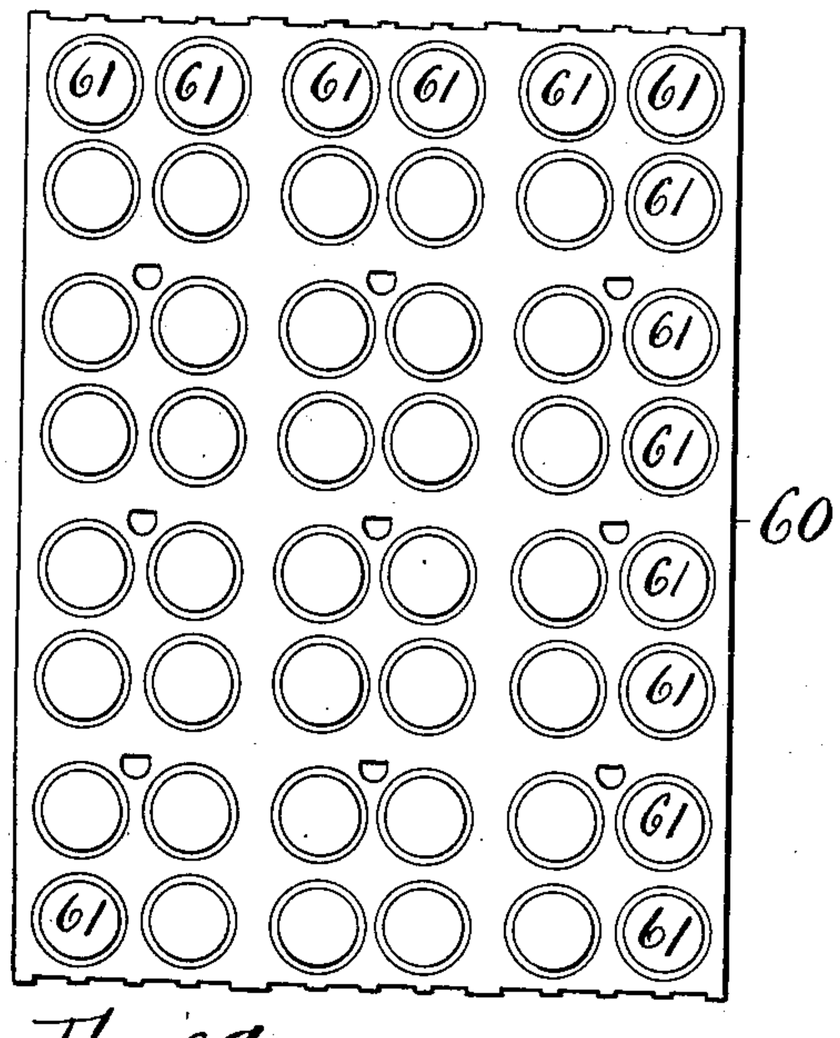


Fig 6a

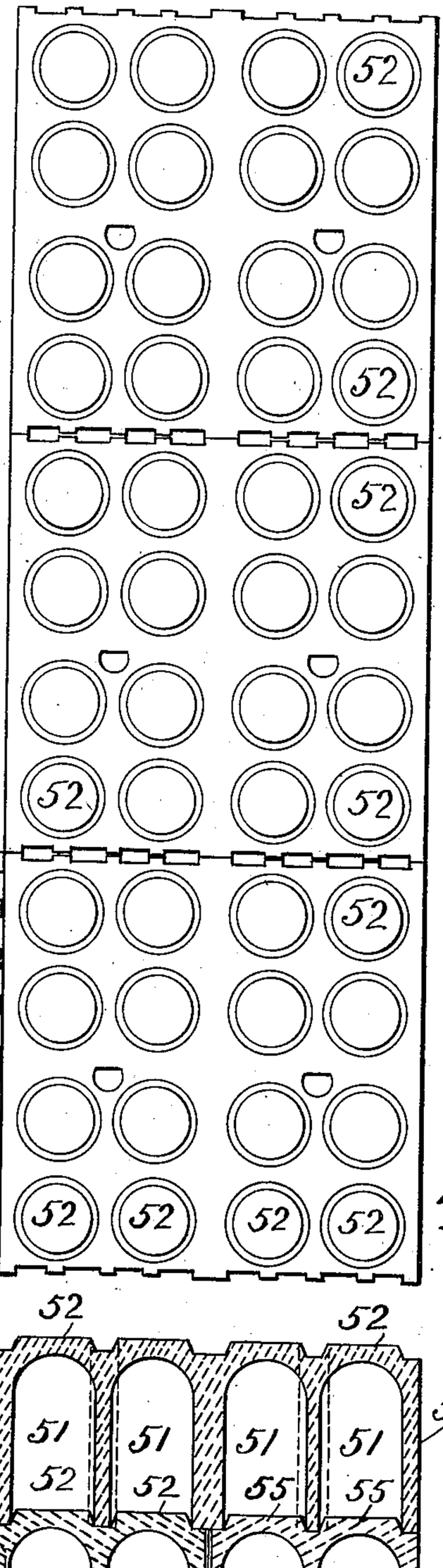
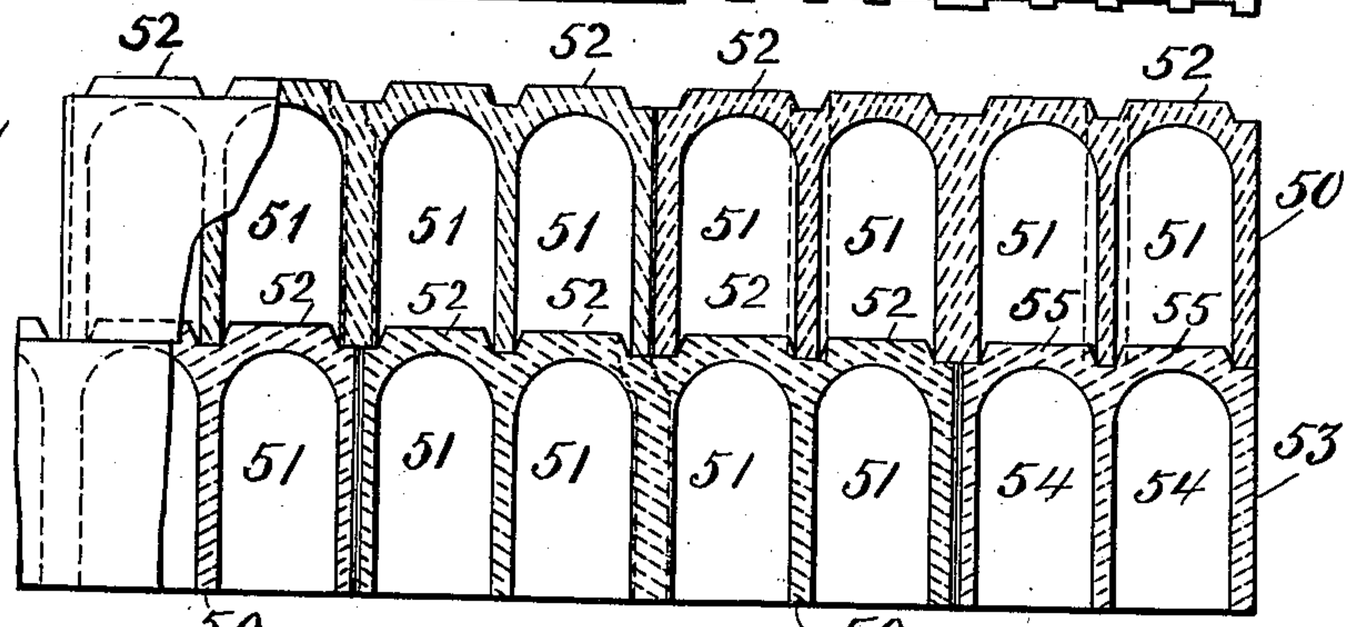


Fig 6

Fig 7



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3 SHEETS—SHEET 3.

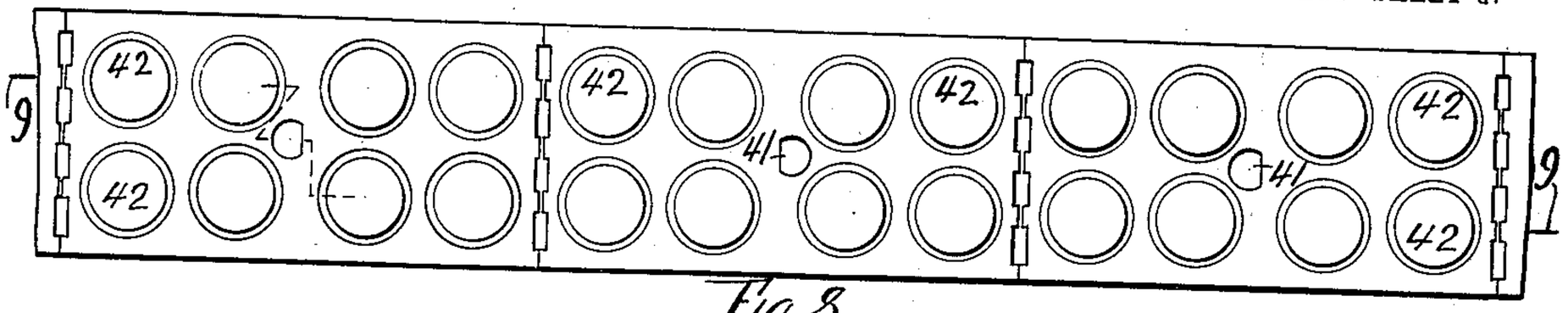

Fig 8

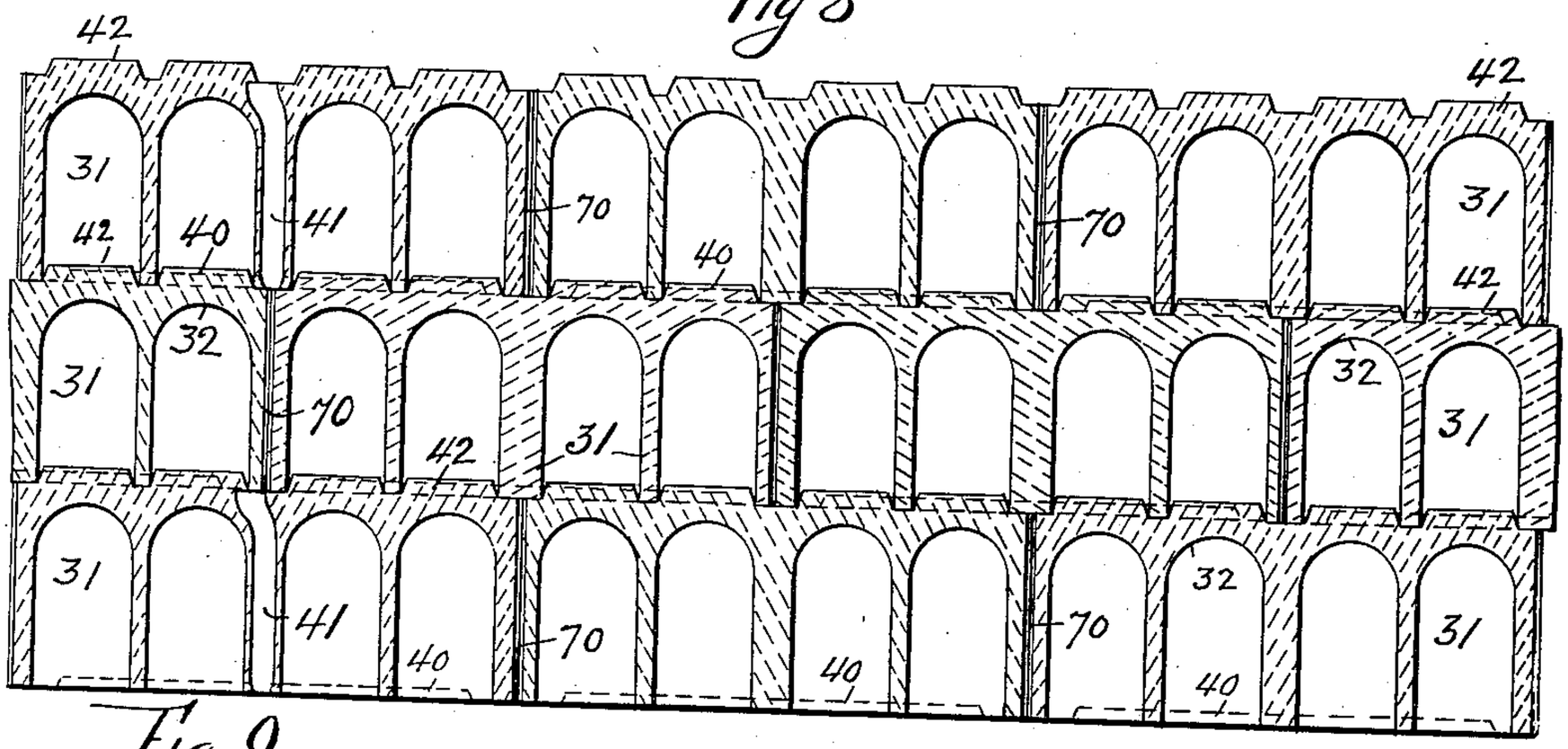

Fig 9

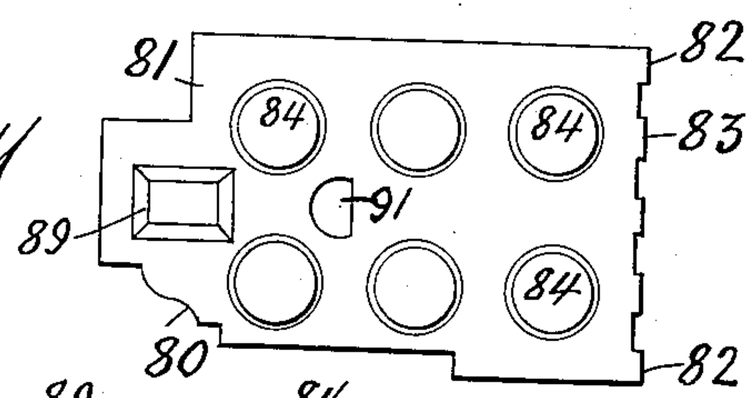

Fig 11

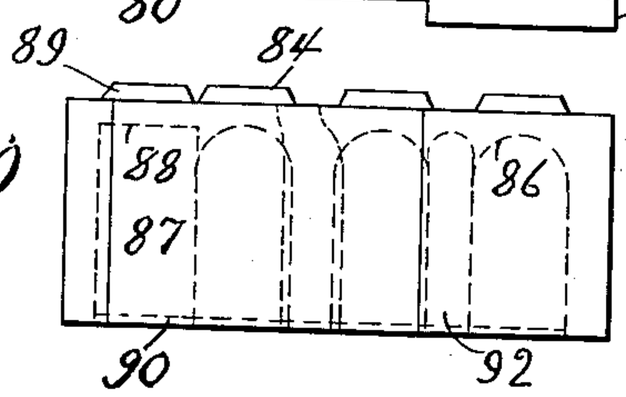

Fig 10

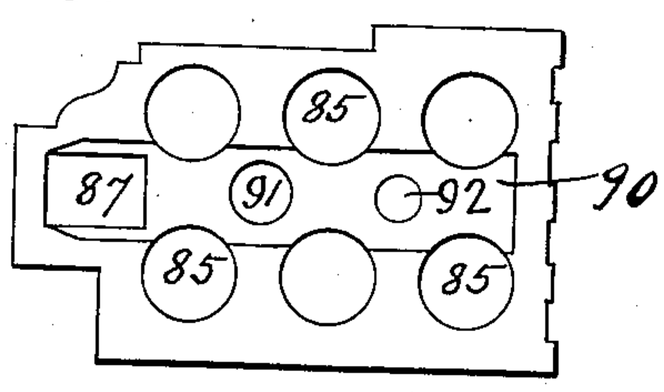

Fig 12

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UNITED STATES PATENT OFFICE.

LUIS RIBEREAU Y MARTEAUX, OF HABANA, CUBA.

INTERLOCKING CELLULAR BUILDING-BLOCK.

958,413. Specification of Letters Patent. Patented May 17, 1910.

Application filed April 29, 1908. Serial No. 429,962.

To all whom it may concern:

Be it known that I, LUIS RIBEREAU Y MARTEAUX, a citizen of the Republic of Cuba, and resident of Habana, in the Province of Habana, Republic of Cuba, have invented certain new and useful Improvements in Interlocking Cellular Building-Blocks, of which the following is a specification.

This invention relates to interlocking cellular building blocks. Its organization comprises building blocks with which structures, walls and the like can be built by interlocking the blocks with each other. Conduits and channels are formed in the blocks for the introduction of a binding agent of mortar, cement and the like. The blocks may be made in units of various sizes and shapes and used as ordinary building blocks, cap stones, lintels and the like. They may be made of a mixture of sand and cement or any other suitable material. A structure composed of these blocks constitutes a series of hollow columns with interposing layers of material, combining great strength and lightness. The interlocking features of the blocks obtain a system for building with but little expert labor. The blocks or a portion of them are interlocked with each other and then a fluid binding agent is conducted through the conduit of one block to the spaces between the end faces of the blocks next below, and to channels in the lower faces of the blocks to bind them with the blocks next above.

In the accompanying drawings which exemplify the invention, Figure 1 represents a plan view of one of my building blocks with a portion of a second adjacent thereto, Fig. 2 shows a partial front elevation and section of Fig. 1 on the line 2, 2, Fig. 3 is a bottom plan view of Fig. 1, Fig. 4 represents a partial section of Fig. 1 on the line 4, 4, Fig. 5 is a section of Fig. 1 on the line 5, 5, Fig. 6 shows a modified plan view of the invention on a reduced scale with some blocks of double width, Fig. 6ª shows a plan view of a block of triple width and double length, Fig. 7 is a partial front view and section of Fig. 6 on the line 7, 7, Fig. 8 is a plan view of a wall on a reduced scale embodying the invention, Fig. 9 shows a section of Fig. 8 on the line 9, 9, Fig. 10 represents an elevation of a modified block, Fig. 11 shows a top plan view of Fig. 10, and Fig. 12 is a bottom plan view of Fig. 9.

Referring to Figs. 1 to 5 the building block shown consists of the body or main portion 30, with the cylindrical cells 31 having the spherical roofs 32 extending up from the bottom face thereof. On the sides of the bodies are formed the abutting lugs 33, and the intermediate lugs 34. Secondary cells 35 are formed in the body of the blocks to lighten the same. On the bottom face of the block is formed a longitudinal horizontal channel 40, which connects with a vertical feeding conduit 41; and the cells 31 and 35. From the upper face of the body of the block extend the conical truncated interlocking bosses 42 which are axially in line with the cells 31.

In Figs. 6 and 7 is shown a wall with the blocks 50 having sixteen cells 51 and corresponding interlocking bosses 52 and blocks 53 with eight cells 54 and interlocking bosses 55.

In Fig. 6ª is shown a block 60 with forty-eight interlocking bosses 61 which latter are over their corresponding cells not shown.

The combination of blocks described and shown in the drawings may be modified in various ways to obtain blocks of different widths and lengths, and by the interlocking means inherent in the blocks, unskilled labor may be employed to build structures, which will be of the greatest strength for the weight of material used.

In Figs. 8 and 9 three tiers of blocks of the same design as Figs. 1 to 5 are represented. The conduits 41 of the upper block furnish the binding agent for the ends of the blocks of the second tier, filling the space 70, and to the channels on the lower faces of the blocks, to cement them together where the interlocking bosses 42 engage with the cells 31. The binding agent is preferably used so as to fully empty from the conduits 41 when filling the spaces 70.

In Figs. 10 to 12 a block is shown with an ornamental front side 80, and a shouldered rear side 81. One of the end faces has the abutting lugs 82 and the intermediate lugs 83. Conical truncated interlocking bosses 84 extend from the upper faces of the block, and cylindrical cells 85 having spherical roofs 86 extend up from the bottom face of the block, as well as the rectangular cell 87 with the flat roof 88. A flared rectangular interlocking boss 89 extends from the upper face of the block, and a channel 90 connects the lower ends of the cells. A conduit 91 extends through the body of the

block, and a secondary cylindrical cell 92 extends up from the bottom face of said block connecting with channel 90.

The cells, conduits and channels in the blocks may be made of various shapes, each of those shown in the drawings being only one form thereof.

The forms of the abutting and intermediate lugs may be varied, and in fact the latter may be omitted, but they constitute suitable means to assist in holding the binding agent in place between the end faces of the blocks.

The spherical roofs 32 or the flat roof 88 form layers between the cells in the blocks, which latter, as already stated, when built in a structure, constitute columns.

Having described my invention I claim:

1. An interlocking cellular block comprising a body portion having cells formed therein from one face thereof, a channel in said face connecting the cells, a conduit leading from the said channel to the opposite face of the block, and bosses extending up from the latter face axially in line with the said cells.

2. An interlocking cellular block comprising a body portion having cells formed therein from one face thereof, a channel in said face connecting the cells, the said block having also a conduit leading from the said channel to the opposite face of the block, bosses extending up from the latter face of the block, axially in line with the said cells, abutting lugs and intermediate lugs extending from the ends of the blocks.

3. An interlocking cellular building block comprising a body portion having cylindrical cells with spherical roofs formed thereon, the said cells being connected at their open ends by a longitudinal channel, the said block having secondary cells formed therein, conical truncated interlocking bosses extending from the face of the block opposite to said cells and axially in line therewith.

4. The combination of cellular blocks, abutting lugs extending from the ends of the blocks, and a binding material in the space between the said lugs, interlocking bosses extending from the upper faces of the blocks and engaging the lower portions of cells in the blocks next above them, a channel in one of the faces of each block connecting the lower ends of the cells, a conduit extending through each block connecting with said channel.

5. The combination of cellular blocks placed in tiers one over the other and breaking joints with each other, abutting and intermediate lugs at the end faces of the blocks forming a space for a binding agent between the said end faces, a plurality of cells extending up from the lower face of each block, a channel in said lower face connecting the cells, a conduit in each block leading from the channel in said lower face to the channel in the block next above, and locking bosses extending from one of the faces of each block engaging with the cells of the block next thereto.

Signed at Habana, in the Province of Habana, and Republic of Cuba, this fourth day of December 1907 A. D.

LUIS RIBEREAU Y MARTEAUX.

Witnesses:

STEFANO CHAVATOS,

C. CRESPO.