

O. BRUMBAUGH.
BUILDING BLOCKS.

APPLICATION FILED MAY 18, 1909.

946,330.

Patented Jan. 11, 1910.

Fig. 1

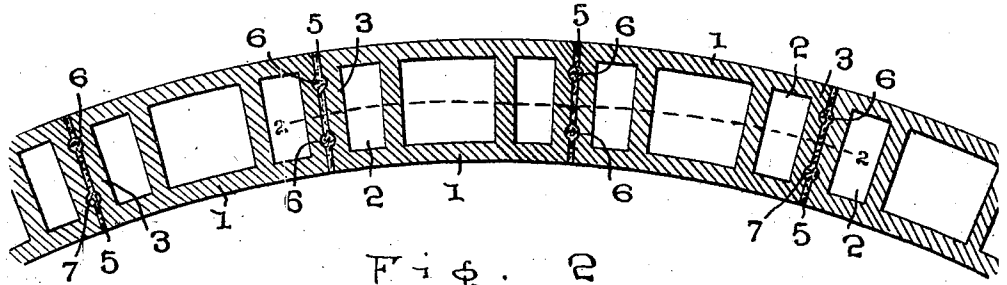


Fig. 2

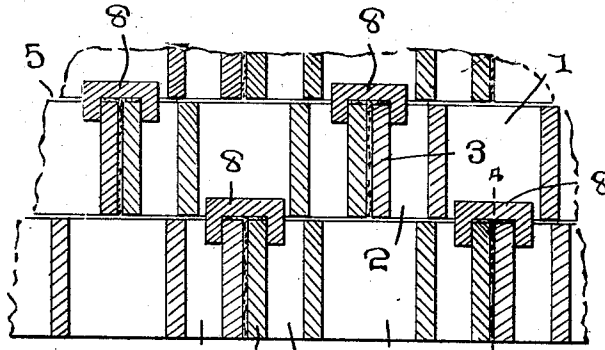


Fig. 3

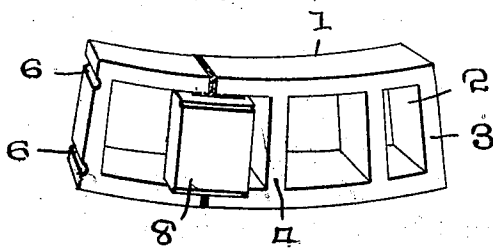


Fig. 4

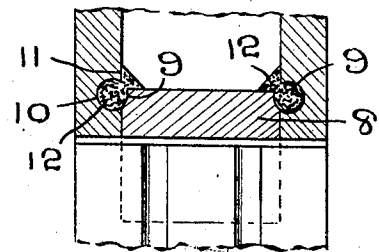
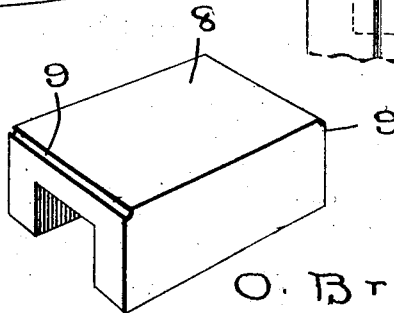


Fig. 5



WITNESSES:

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BUILDING-BLOCKS.

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To all whom it may concern:

Be it known that I, OLIVER BRUMBAUGH, a citizen of the United States, residing at Louisville, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Building-Blocks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to new and useful improvements in building blocks and ties therefor and more especially to that class adapted to be used for constructing silos and my object is to provide blocks of this class which when properly assembled together, will form a circular wall.

A further object is to provide suitable gaskets and means to hold the same between the blocks to prevent leakage.

A further object is to provide suitable tying means for securing the blocks together and a still further object is to provide means for locking the ties and blocks together.

Other objects and advantages will be hereinafter referred to and more particularly pointed out in the claims.

In the accompanying drawings forming part of this application, Figure 1 is a horizontal sectional view through the wall of a silo showing my improved attachments therefor. Fig. 2 is a vertical sectional view through the wall and tying mechanism as seen on line 2—2, Fig. 1. Fig. 3 is a perspective view of two of the blocks, showing the manner of tying the same together. Fig. 4 is a vertical transverse sectional view on an enlarged scale as seen on line 4—4, Fig. 2, showing the tie block in position and, Fig. 5 is a perspective view of the tie block removed.

Referring to the drawings in which similar reference numerals designate corresponding parts throughout the several views, 1 indicates the blocks, which may be constructed in the usual manner of suitable plastic material and is provided with openings 2 thereby leaving end walls 3 and providing in its length partition walls 4, the removal of the plastic material to form the openings 2, rendering the block light in weight, while the partitions 4 lend rigidity to the block, and compensate for the removal of the plastic material to form the openings.

The blocks 1 are preferably curved so that when they are properly assembled together, they will form a complete circle and by placing the tiers of blocks one above the other, the structure may be erected to any height and any suitable form of gasket 5 is to be introduced between the meeting edges and ends of the blocks to render the joints water and air tight, the ends of the blocks being provided with semi-circular channels 6, in which are adapted to enter ribs 7 formed on the gaskets, said ribs holding the gaskets in place between the blocks. After the blocks have been properly placed together, the ends thereof are securely locked together by means of tie blocks 8, said blocks being channel shaped in cross section, the depending flanges of which are adapted to engage the faces of the end walls 3 and it will be readily seen that when the tie blocks are properly introduced over the meeting ends of the blocks, said blocks will be securely locked together. The lengths of the blocks 8 are such as to snugly fit in the openings 2, the ends of the tie block engaging the end walls of the middle opening of the block in the succeeding tier and in order to securely lock the tie block in position, the upper end edges thereof are provided with grooves 9, which grooves coöperate with similar grooves 10 in the end walls of the central opening, the grooves 10 being semi-circular, while the grooves 9 are but a segment of a circle, thereby leaving a mouth 11 between the end wall of the central opening and the end wall of the block 8 through which any suitable form of plastic material 12 is introduced to fill the opening formed by the grooves 9 and 10 and after the plastic material 12 has been applied and becomes hardened, the tie blocks will be permanently locked in position.

In constructing a silo or other building, a tier of the blocks are properly positioned on a foundation and the ends thereof fastened together by means of the tie blocks 8, after which the gaskets are placed in position over the first tier and an additional tier of blocks placed upon the first tier, the second tier being so positioned that the center of the blocks will be over the joints of the first tier and after the second tier is placed in position, the grooves 9 and 10 are filled with plastic material while in a green state, a sufficient quantity of the plastic material being placed over the faces of the tie block

and end wall of the opening to form a perfect tie as best shown in Fig. 4 of the drawings.

5 In applying the gaskets between the blocks, it will be readily understood that the gaskets between the end walls are applied as the blocks are placed in position. In this manner it will be readily seen that a wall can be very cheaply constructed and in view
10 of the manner in which the blocks are tied together, said walls will be perfectly solid and rigid and will withstand storms and strong winds.

What I claim is:

15 1. The combination with building blocks having end walls and opposed channels in said end walls adapted to register with each other when the blocks are placed end to end; of gaskets fitting between said building
20 blocks and having ribs engaging said channels and means tying the blocks together.

2. The combination with building blocks having end walls; of tie blocks adapted to

engage said end walls, said tie blocks and walls of the first mentioned blocks having
25 grooves therein containing plastic material adapted to lock the tie blocks in position over said end walls.

3. The combination with building blocks having openings therethrough forming end
30 walls and partition walls; of channel shaped tie blocks for uniting adjacent building blocks, said tie blocks being surrounded by the building blocks and extending transversely from wall to wall of the building
35 blocks and means locking the tie blocks in position over the end walls of the building blocks.

In testimony whereof I have signed my name to this specification in the presence of
40 two subscribing witnesses.

OLIVER BRUMBAUGH.

Witnesses:

J. L. Coy,

CLARA A. Coy.