Feb. 25, 1941. G. G. ADLER 2,233,089

BEAM CONSTRUCTION

Filed Aug. 2, 1939

Fig. 1.

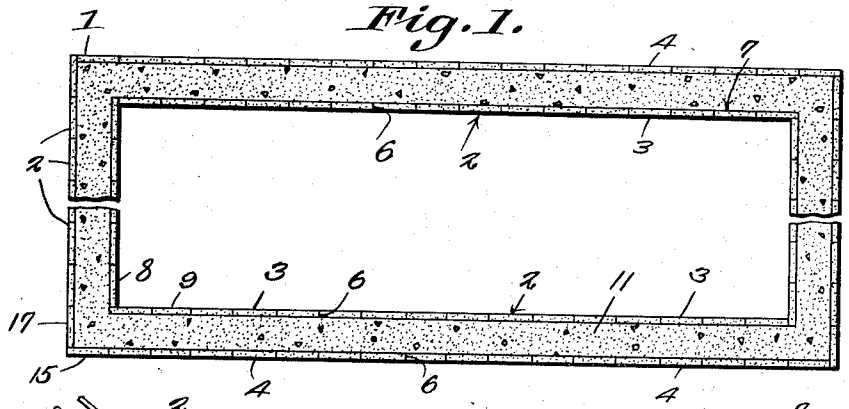


Fig. 2.

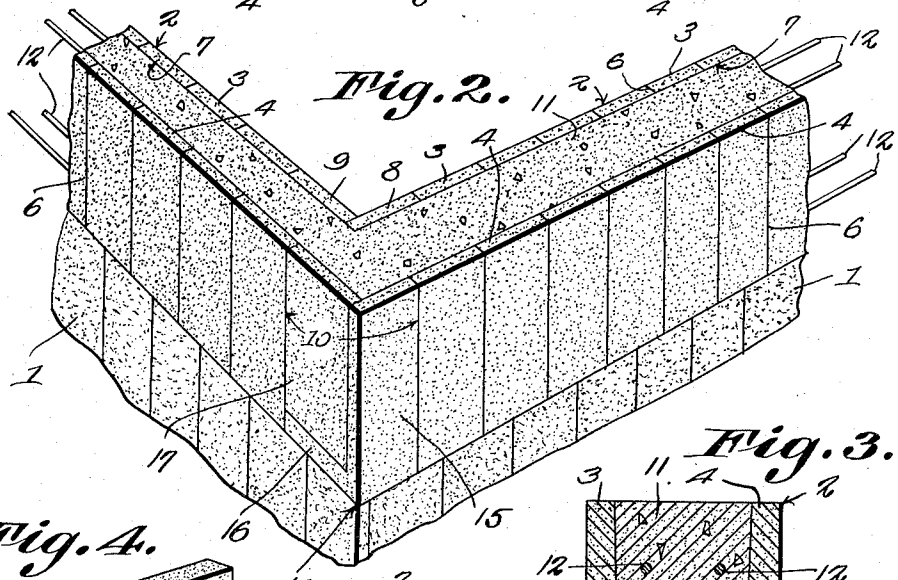


Fig. 3.

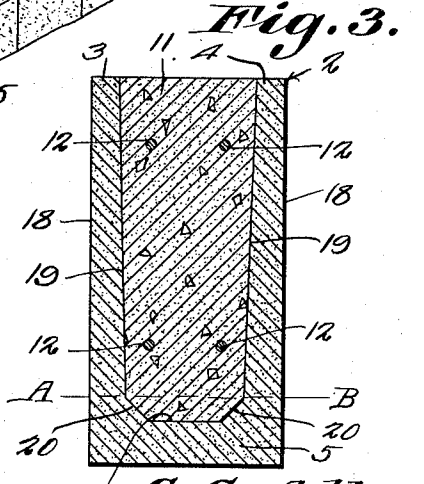
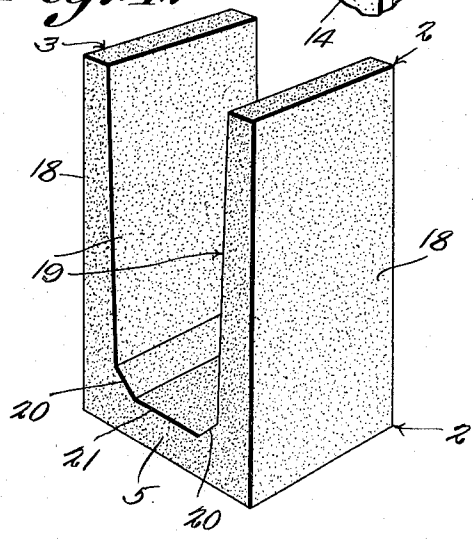


Fig. 4.



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BEAM CONSTRUCTION

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3 Claims. (Cl. 72—60)

This invention aims to provide novel means whereby, through the use of U-shaped blocks, a trough may be formed entirely around a building, a mass of concrete in the trough binding the walls of the building together throughout the entire extent of the walls, and at the corners thereof. Another object of the invention is so to construct the U-shaped blocks that they will be particularly advantageous for the use hereinbefore described and hereinafter set forth.

It is within the province of the disclosure to improve generally and to enhance the utility of devices of that type to which the present invention appertains.

With the above and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawing:

Fig. 1 shows in top plan, a building the walls of which are bound together by the structure forming the subject matter of this application;

Fig. 2 is a perspective view showing the walls, and the binding means, at one of the corners of the building;

Fig. 3 is a transverse section showing one of the trough forming blocks filled with reenforced concrete;

Fig. 4 is a perspective view showing one of the blocks.

The device forming the subject matter of this application is adapted to be used in connection with a building comprising walls 1, constructed as designed, the walls extending continuously around the building. A plurality of U-shaped blocks 2, are provided. Each of the blocks 2 includes an inner arm 3 and an outer arm 4, and a base 5 connecting the inner and outer arms. The blocks 2 are supported by their bases 5 on the walls 1.

The inner arms 3 of the blocks 2 are disposed in edge to edge contact, as shown at 6, to define an inner boundary of a trough 7, extended entirely around the building.

The outer arms 4 of the blocks 2 define the outer boundary of the trough 7 throughout practically the entire extent of the trough.

The outer arms of the blocks 8 and 9, immediately adjacent to the corners formed by the walls 1, are separated to form a space 10 in the outer boundary of the trough 7. A means, hereinafter described, is provided for closing the said space 10, the bases 5 of the blocks 2, and a portion of the said means, defining the bottom of the trough.

A mass 11 of concrete is disposed in the trough 7, the concrete extending entirely around the building and binding the walls 1 thereof together at the corners of the building.

Reenforcements 12, of any desired construction, may be located in the mass 11 of concrete.

The means for closing the space indicated at 10 in Fig. 2 and for closing the bottom of the trough 7 at each corner of the wall, may comprise an L-shaped block 14, including an upright arm 15 and a base 16 arranged at right angles to the arm. One edge of the arm 15 operates with the corresponding edge of the outer arm of the block 8, the base 16 closes the bottom of the trough, and a plain slab 17 closes the space between the arm 15 of the block 13 and the adjacent upright edge of the outer arm of the block 9.

Preferably, the outer surfaces 18 of the arms 3 and 4 of each block are parallel. The inner surfaces 19 of the arms 3 and 4 converge gradually as they extend downwardly, until they reach a plane A—B parallel to and near the upper or inner surface 21 of the base 5, and from that plane, the inner surfaces converge more abruptly, downwardly and inwardly, as shown in 20, to the upper surface 21, of the base 5.

The specific form of block shown in Fig. 3 is highly useful for the particular end in view and has the requisite strength, with a minimum amount of material, either in the formation of the block, or in the concrete 11 which occupies the trough 7 formed by the blocks.

It will be obvious, from Fig. 1, that the walls 1 are bound together, throughout their entire extent, and at their corners, by a continuous mass of concrete, the U-shaped blocks 2 defining a trough, and rendering it unnecessary to use forms or the like, in the placing of the concrete.

Having thus described the invention, what is claimed is:

1. A building comprising walls extended continuously around the building, a plurality of U-shaped blocks, each including an inner arm and an outer arm, and a base connecting the arms, the blocks being supported, by their bases, on the walls, the inner arms being disposed edge to edge, to define the inner boundary of a trough extended entirely around the building, the outer arms of the blocks defining the outer boundary of the trough throughout practically the entire

extent of the trough, the outer arms of the blocks immediately adjacent to the corners formed by the walls being separated to define a space in the outer boundary of the trough, means forming a permanent part of the outer boundary for closing said space, the bases of the blocks, and a portion of said means, defining the bottom of the trough, and a mass of concrete in the trough, said mass extending entirely around the building and binding the walls thereof together at the corners of the building.

2. A building comprising walls extended continuously around the building, a plurality of U-shaped blocks, each including an inner arm and an outer arm, and a base connecting the arms, the blocks being supported, by their bases, on the walls, the inner arms being disposed edge to edge, to define the inner boundary of a trough extended entirely around the building, the outer arms of the blocks defining the outer boundary of the trough throughout practically the entire extent of the trough, the outer arms of the blocks immediately adjacent to the corners formed by the walls being separated to define a space in the outer boundary of the trough, an L-shaped block including an upright arm and a base disposed approximately at right angles thereto, a slab set up on the base and cooperating with the upright arm, the upright arm of the L-shaped block, and the slab, constituting means for closing said space, the bases of the U-shaped blocks and the base of the L-shaped block defining the bottom of the trough, and a mass of concrete in the trough, said mass extending entirely around the building and binding the walls thereof together at the corners of the building.

3. A building comprising walls extended continuously around the building, a plurality of U-shaped blocks, each including an inner arm and an outer arm, and a base connecting the arms, the blocks being supported, by their bases, on the walls, the inner arms being disposed edge to edge, to define the inner boundary of a trough extended entirely around the building, the outer arms of the blocks defining the outer boundary of the trough throughout practically the entire extent of the trough, the outer arms of the blocks immediately adjacent to the corners formed by the walls being separated to define a space in the outer boundary of the trough, means forming a permanent part of the outer boundary for closing said space, the bases of the blocks, and a portion of said means, defining the bottom of the trough, a mass of concrete in the trough, said mass extending entirely around the building and binding the walls thereof together at the corners of the building, the outer surfaces of the arms of the U-shaped blocks being parallel, the inner surfaces of the said arms converging downwardly, gradually, throughout the major portion of the height of the arms, the inner surfaces of the arms thence converging downwardly and more abruptly, but leaving a flat upper surface on the base of the block, said surface being parallel to the lower surface of the base of the block.

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