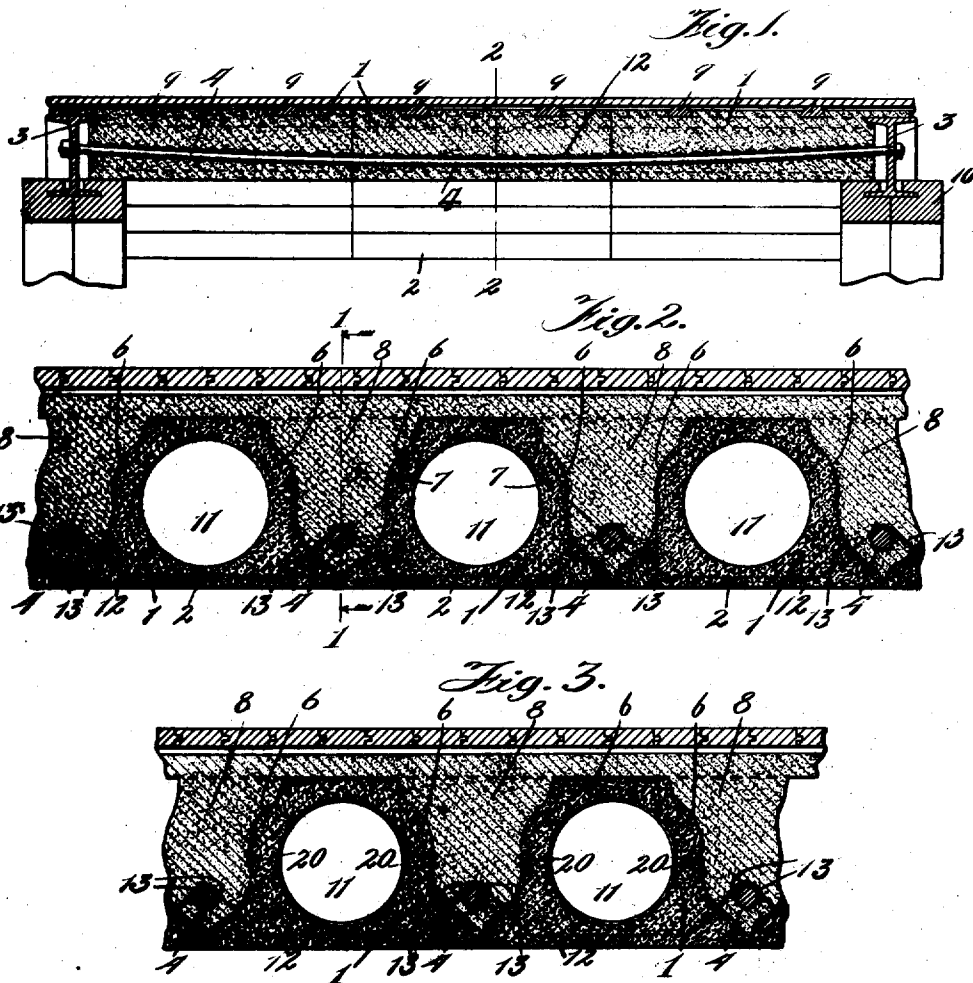


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FILLING BLOCK FOR FIREPROOF CONSTRUCTIONS.
APPLICATION FILED APR. 27, 1908.

974,868.

Patented Nov. 8, 1910.



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY ERICSSON, OF CHICAGO, ILLINOIS.

FILLING-BLOCK FOR FIREPROOF CONSTRUCTIONS.

974,868.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY ERICSSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Filling-Blocks for Fireproof Constructions, of which the following is a description.

My invention relates to filling blocks or members formed of concrete or other suitable fire-proof material adapted to serve as a body portion of a floor or the like, and to receive a suitable filling or backing of concrete or similar substance around and between them to hold the blocks in position and avoid the use of forms as usually employed when erecting concrete floors.

The object of my invention is to provide a cheap and convenient filling block of the kind described, in which the lower face or base of the blocks shall meet at their edges when erected so that the usual forms may be dispensed with, and any suitable means may be employed to support the blocks in position while the concrete is being put in place and hardening.

To this end my invention consists in the novel construction, arrangement, and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, wherein like or similar reference characters indicate like or corresponding parts; Figure 1 is a sectional elevation of a floor in which my filling blocks are employed taken substantially on line 1—1 of Fig. 2. Fig. 2 is an enlarged section taken substantially on line 2—2 of Fig. 1. Fig. 3 is a view similar to that shown in Fig. 2, showing a slightly modified form of filling block.

In the preferred form shown in the drawings, my improved filling blocks 1—1 are formed to jointly cover the entire space between the floor girders 3—3 or other suitable portions of the frame of the building. The base 2 of each block is substantially flat and rectangular in form and somewhat wider than the remaining portions of the blocks so that when a plurality of my blocks are assembled side by side as shown in Figs. 2 and 3, the bases 2 will meet along their sides, while the upper portion and backs of the blocks are suitably separated to receive the binding or carrying rods 4—4 in the spaces between the blocks.

The sides 6—6 of the blocks are each preferably curved transversely of the block and converge from the margins of the base 2 to the back of each block which is also preferably substantially rectangular and parallel to the face of the base 2. The sides 6—6 of the blocks are preferably formed to receive a filling of concrete between the adjacent blocks to support the blocks upon the rods 4. 80

In the form shown a portion substantially midway of the sides 6 is slightly inclined in the opposite direction to the general inclination of the sides so that when the space between the blocks is filled with concrete about the rods 4 the same will form a binder effectually holding the blocks in position in relation to the rods. The arrangement shown in Fig. 2 of the drawings is such that if lines 7—7 are drawn from the center of the back of the blocks to the rods 4 at each of its sides it will pass through substantially the central portion of this oppositely inclined portion of each side of the block, so that the line of resistance from the rods 4—4 to the backs 80 of the block are well within the walls of the blocks and through the center of this oppositely inclined portion.

From the description above it will be seen that the cross section of the blocks is substantially in the form of an isosceles trapezoid, the legs of which curve in the form of an ogee curve and the grooved portion of which is adjacent to the base.

In the preferred construction the margins 90 of the base 2 are preferably inclined slightly toward the back of the blocks and when erected the lower edge of the face or base portions of the blocks meet thereby, leaving a small V-shaped recess at the bottom of each space between the blocks which is preferably filled with fine concrete or other suitable material after which the filling is placed in the entire space between the blocks and sufficiently above and about their backs to suitably embed the nailing strips 9—9 for carrying the usual floor construction. No forms of any kind are required as it is only necessary to support the blocks in a suitable manner until the concrete is filled in between and around them and properly set after which obviously the structure is complete.

The filling blocks may be of suitable length to extend the entire distance between the beams 3—3 but in practice it is found more desirable to employ a plurality of 110

blocks as shown in Fig. 1 so that their combined length fills the space between the beams. The bearings between the blocks and supporting beams may be of the usual or any desired form. As shown a suitable skewback or cover block 10 is provided to engage the lower flange of the beam and protect its lower face from heat in case of fire and the extremities of the blocks adjacent to the beams rests upon the skewback in substantially the usual manner common to tile or similarly constructed floors.

In the preferred construction shown, each block is provided with a circular opening 11 extending longitudinally entirely there-through, and with a plurality of transverse wires or a strip of reinforcing material 12—12 positioned in the base with the extremities 13—13 of the wires or portions of the reinforcing material projecting at the sides of the blocks so that when the blocks are placed in position these wires or the reinforcing material as the case may be, may be wrapped about or otherwise engaged with the rods 4—4 to temporarily hold the blocks in position while the concrete filling 8 is being put in place. The reinforcing material 12 also serves to strengthen the base of the blocks and to prevent the projecting margins thereof from breaking away from the remainder of the blocks, and when the filling 8 is inserted and has set provides an extremely efficient connection between the rods 4—4 and the blocks.

It will be noted that the reinforcing material 12 projects beyond opposite sides of the blocks in the concave portion of the curves, or at a point where the block is considerably narrower than at the base, with the result that the bases of adjacent blocks may be placed in direct contact when the blocks are placed in position.

In the form shown in Fig. 3 the blocks are formed substantially as above described excepting that near the central portion of each of the blocks suitable longitudinal corrugations 20 are provided to secure a more positive engagement between the blocks and the concrete inserted in the spaces between them.

Having thus described my improvement it is obvious that various immaterial modifications may be made in my device without de-

parting from the spirit of my invention, hence I do not wish to be understood as limiting myself to the exact form and construction shown.

What I claim as new, and desire to secure by Letters Patent is:

1. In a fire proof construction, a filling block having a rectangular base and a cross section substantially in the form of an isosceles trapezoid, the legs of which curve in the form of an ogee curve, and the grooved portion of the curve is adjacent to the base, and reinforcing material embedded in the base of the block and projecting through the sides of the latter at a point intermediate the ends of the grooved portion of the curve and extending to a point overlapping the outer edges of the base of said block, the reinforcing material offering no obstruction beyond the sides of the base, whereby the bases of adjacent blocks may abut.

2. In a fire proof construction, a filling block having a rectangular base and a cross section substantially in the form of an isosceles trapezoid, the legs of which curve in the form of an ogee curve, and the grooved portion of the curve is adjacent to the base, and said legs having corrugations adjacent the upper end of the grooved portion thereof, and reinforcing material embedded in the base of the block and projecting outwardly beyond the legs thereof.

3. In a fire proof construction, a plurality of filling blocks each having a substantially flat rectangular base with legs extending from the margins of the base inward and toward the back of the block, a portion of each leg inclined in the opposite direction, thereby forming a groove, filling material between the blocks, a rod embedded in the filling material at a point adjacent the grooves in the respective legs and above the contiguous edges of the base of the blocks, and reinforcing material inserted in each block and projecting through the grooved portion thereof for connection with said rod.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

HENRY ERICSSON.

Witnesses:

BURTON U. HILLS,
CHARLES I. COBB.