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S. KOSOROTOFF

2,544,602

MOLD FOR BUILDING CONSTRUCTIONS

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FIG. 1

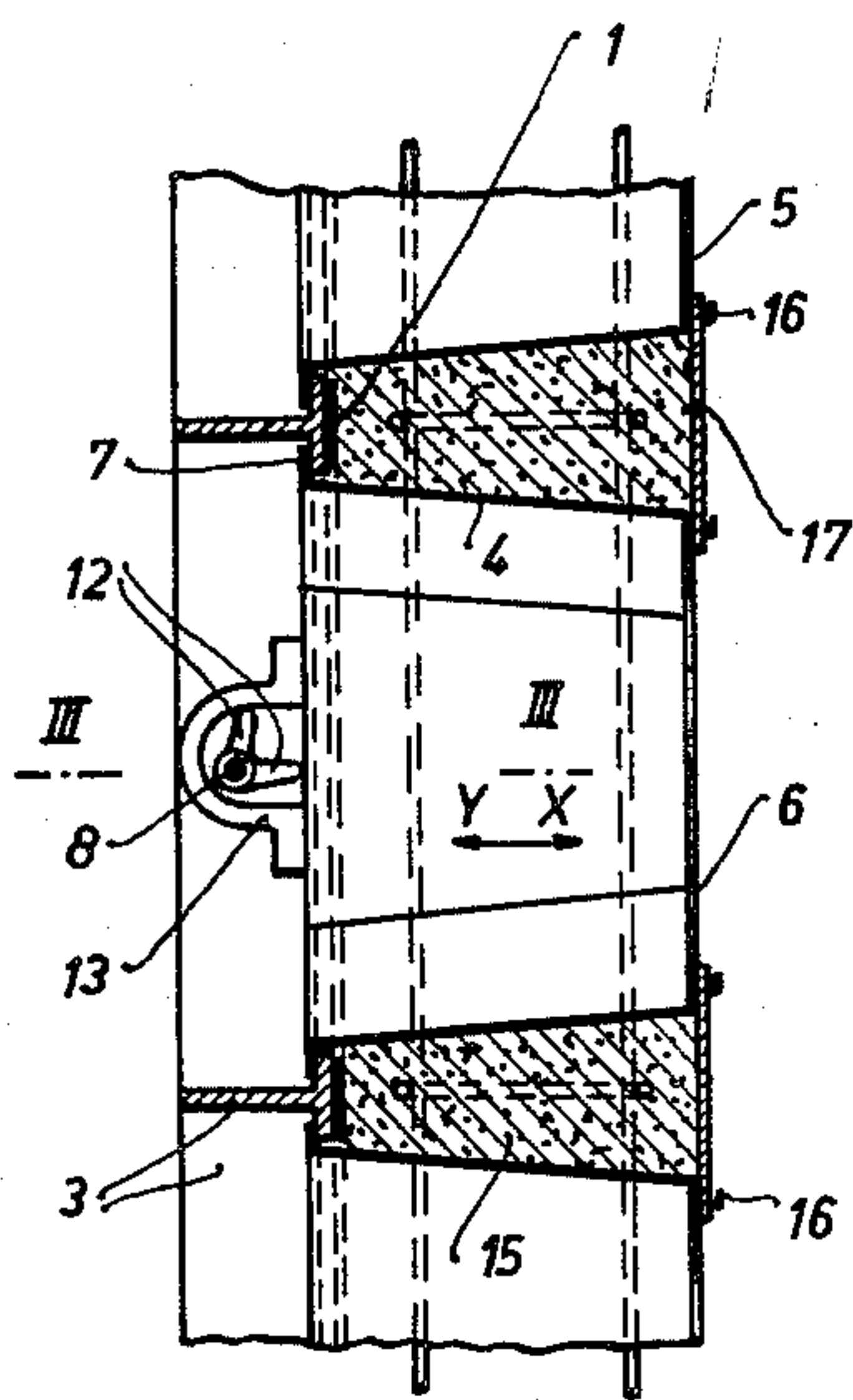


FIG. 2

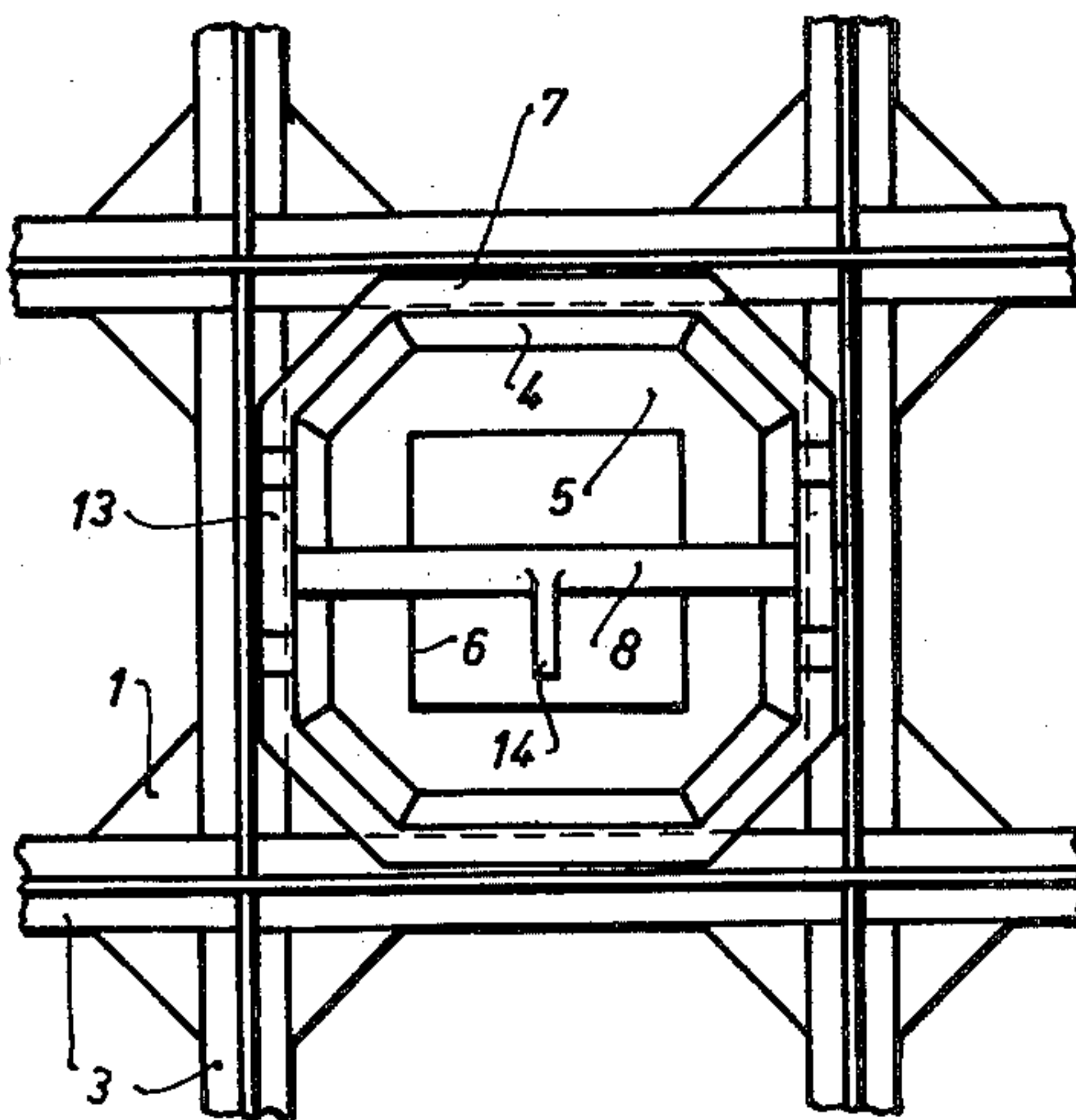


FIG. 4

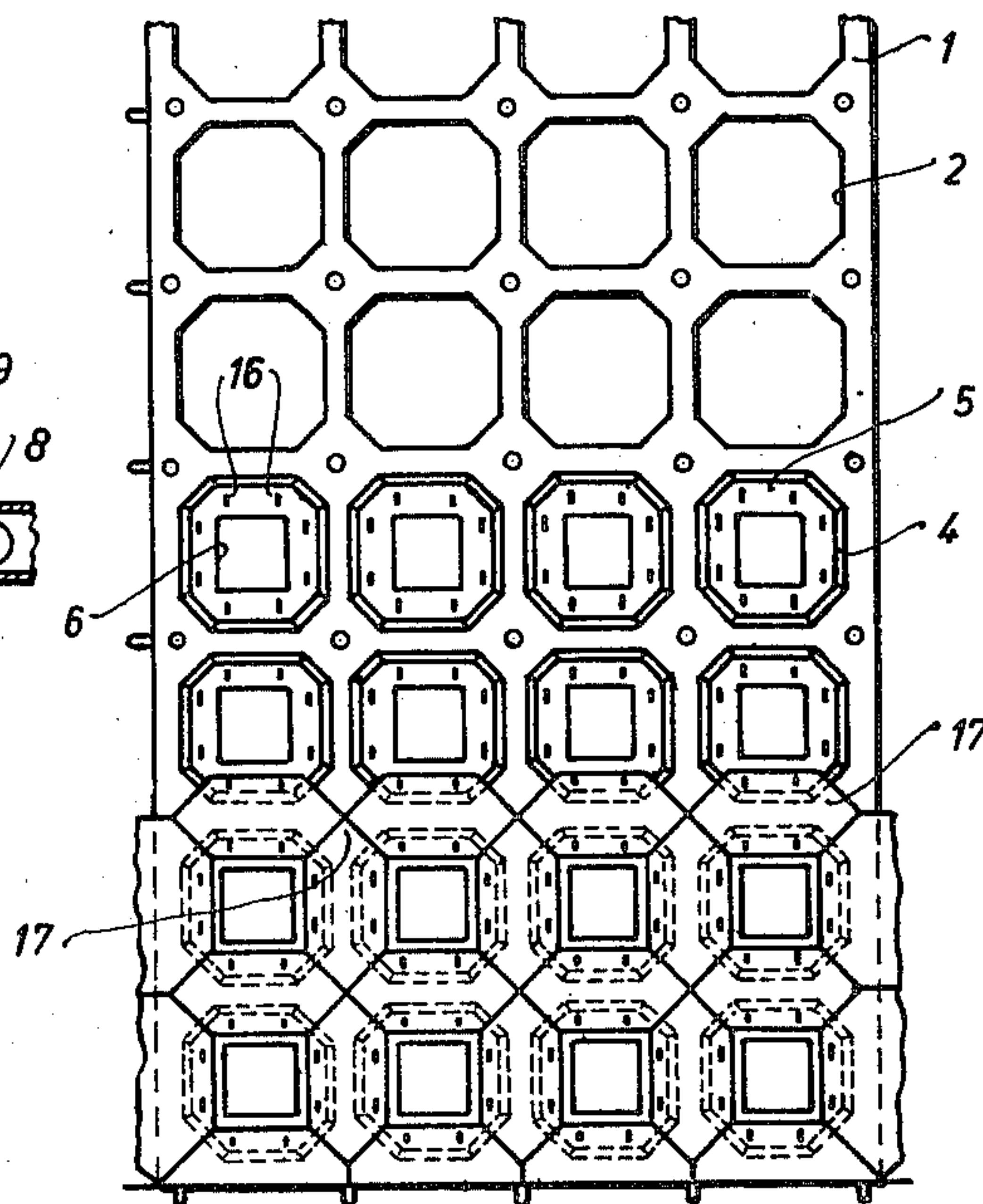
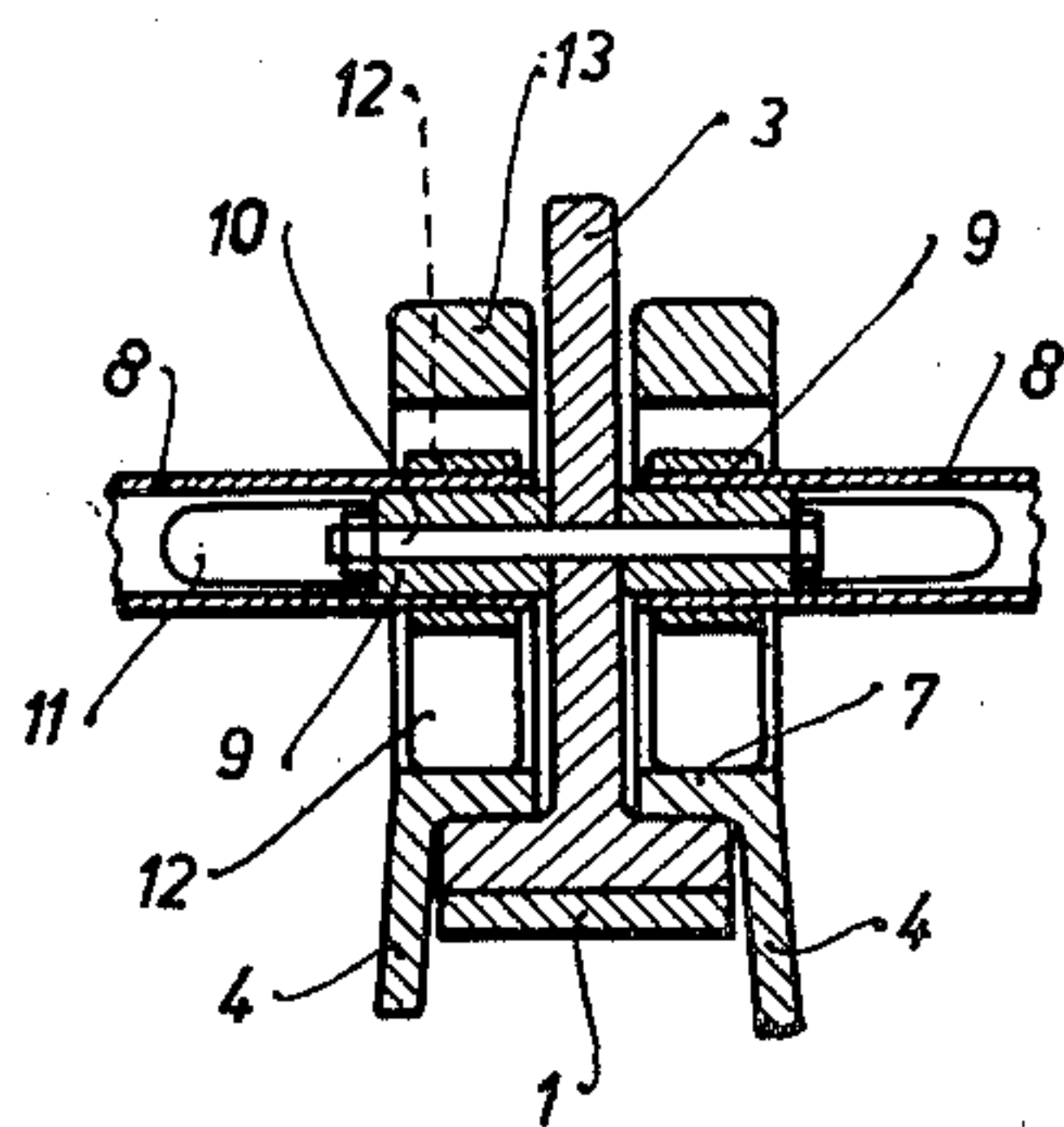


FIG. 3



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UNITED STATES PATENT OFFICE

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MOLD FOR BUILDING CONSTRUCTIONS

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2 Claims. (Cl. 25—131)

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This invention relates to a mould for building constructions using a lattice or honey comb-shaped supporting framework or skeleton of concrete, as described in my copending U. S. patent application Ser. No. 761,925 filed July 18, 1947. Such a mould comprises a plurality of box-shaped mould members detachably secured to an upright mould board, said members forming the openings in the skeleton to be produced. After setting of the concrete of the skeleton, each of these mould members must be withdrawn from said board in order to remove the whole mould assembly from the skeleton.

The main object of the present invention is to provide a mould wherein said mould members need not be withdrawn from the board after setting of the skeleton, but can remain on the board, so that they can be removed together with the latter from the skeleton. A further object of my invention is to provide means to clear each of the mould members from the skeleton, that is to displace the same relatively to the board to a slight extent.

With these and other ends in view, the present invention substantially consists in that the mould members bear on the rear side of the mould board, that is on the side opposite to the concrete, and pass through openings in this board. A further feature of my invention consists in that mould sheets or plates are detachably secured to the front side of the mould members, that is to the side opposite to the mould board, these sheets or plates covering the front side of the spaces formed between the several mould members. Thus these spaces are surrounded on all sides by the mould elements so that concrete setting or hardening relatively slowly may be employed for the construction of the skeleton.

A constructional form of the mould constructed in accordance with the present invention, is illustrated by way of example in the accompanying drawings, in which

Fig. 1 is a vertical cross section through the mould and the skeleton,

Fig. 2 is a rear view of the mould,

Fig. 3 is a partial section according to line III—III of Fig. 1 in an enlarged scale, and

Fig. 4 is a front view of the mould board in a reduced scale.

The mould comprises a number of rectangular boards 1 consisting of iron sheets which are juxtaposed in an upright position and interconnected in any suitable manner. Each of these boards comprises a plurality of octagonal openings 2 and is reinforced on its rear side by a series of T-irons

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3 running horizontally and vertically between the openings 2, and secured to the board 1 by riveting, welding or the like. To each opening 2 is associated a mould member having the form of an octagonal box 4 open on its rear side. The front wall 5 of each box 4 is provided with a relatively large opening 6 in order to reduce the weight of the mould. A circumferential flange 7 provided on the rear side of, and integral with the box 4 bears on the rear side of the T-irons so that the boxes 4 pass through the openings 2 of the board 1.

A tubular or hollow shaft 8 is rotatably mounted between the webs of two adjacent, parallel T-irons 3. For this purpose, sleeves 9 are inserted in the ends of the tube 8, the adjacent sleeves 9 of two tubes 8 being secured to the web of the T-iron 3 by means of a bolt 10 passing through a hole in this web, as shown in Fig. 3. In order to make accessible the bolts 10 and their units, slots 11 are provided in the tubes 8. Locking members 12 each of them comprising two arms including an angle of about 90°, are fixedly secured at both ends of each tube 8. Each of these locking members 12 is surrounded by a circular stirrup 13 fixedly secured to the flange 7 of the box 4. The centre of the arc of circle forming the stirrup 13 is arranged slightly eccentrically to the axis of rotation of the tube 8 so that, when the tube 8 is turned by means of a handle 14 secured thereto, the box 4 is moved by the arms of the locking member 12 either in the direction X or in the direction Y according to the arrow in Fig. 1.

In the position shown in Fig. 1, the horizontal arm of the locking member 12 bears on the flange 7 so that the box 4 is pressed against the board 1 in the direction X. After the spaces 15 existing between the boxes 4 have been filled with concrete and the latter has set, the several tubes or shafts 8 are rotated in an anti-clockwise direction (see Fig. 1) so that the horizontal arm of each locking member 12 releases the flange 7, while the vertical arm moves the stirrup 13 and therefore also the box 4 in the direction Y. By this means, the several boxes 4 are cleared, one after another, from the concrete and removed from the openings of the concrete skeleton to a slight extent, whereupon the whole mould comprising the boards 1 and boxes 4, can be removed. As shown in Fig. 1, the side walls of the boxes 4 diverge towards the board 1 so that they are easily loosened from the concrete, when moved in the direction Y. It is apparent that the cam-shaped locking members 12 may have another form than that illustrated in the drawings.

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As shown in Figs. 1 and 4, on the front wall 5 of each box 4 there are secured eight hooks 16 engaging holes in hexagonal plates 17. Fig. 4 shows at the top the board 1, in the middle part the boxes 4 secured thereto, and at the bottom the plates 17 secured to the boxes 4. These plates are brought into position in the course of the concreting work and cover the spaces 15 on their front side so that these spaces are closed on all sides.

What I claim is:

1. A mould for building constructions, which comprises a mould board having a series of openings therein, a plurality of box-shaped mould members passing through said openings, a circumferential flange on each of said mould members, said flanges bearing on the rear side of said board, locking means rotatably mounted on said board, stirrup-shaped means secured on said mould member and surrounding said locking means, said locking means being arranged relatively to, and being adapted to cooperate with

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said stirrup-shaped means so as to alternatively force said mould members against, or to withdraw them from said mould members.

2. A mould for building constructions, as claimed in claim 1, wherein said locking means of each mould member comprises two cam-shaped, coaxial members, a tube or hollow shaft being provided to connect said cam-shaped members to each other.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
1,211,133	Geiger et al.	Jan. 2, 1917
1,289,069	Ambursen	Dec. 31, 1918
1,289,660	Church	Dec. 31, 1918
1,494,538	Gent	May 20, 1924
1,562,707	Lake	Nov. 24, 1925