

G. W. VOUGHT.
 CONCRETE WALL CONSTRUCTION.
 APPLICATION FILED JUNE 19, 1908.

924,405.

Patented June 8, 1909.
 2 SHEETS—SHEET 1.

Fig. 1.

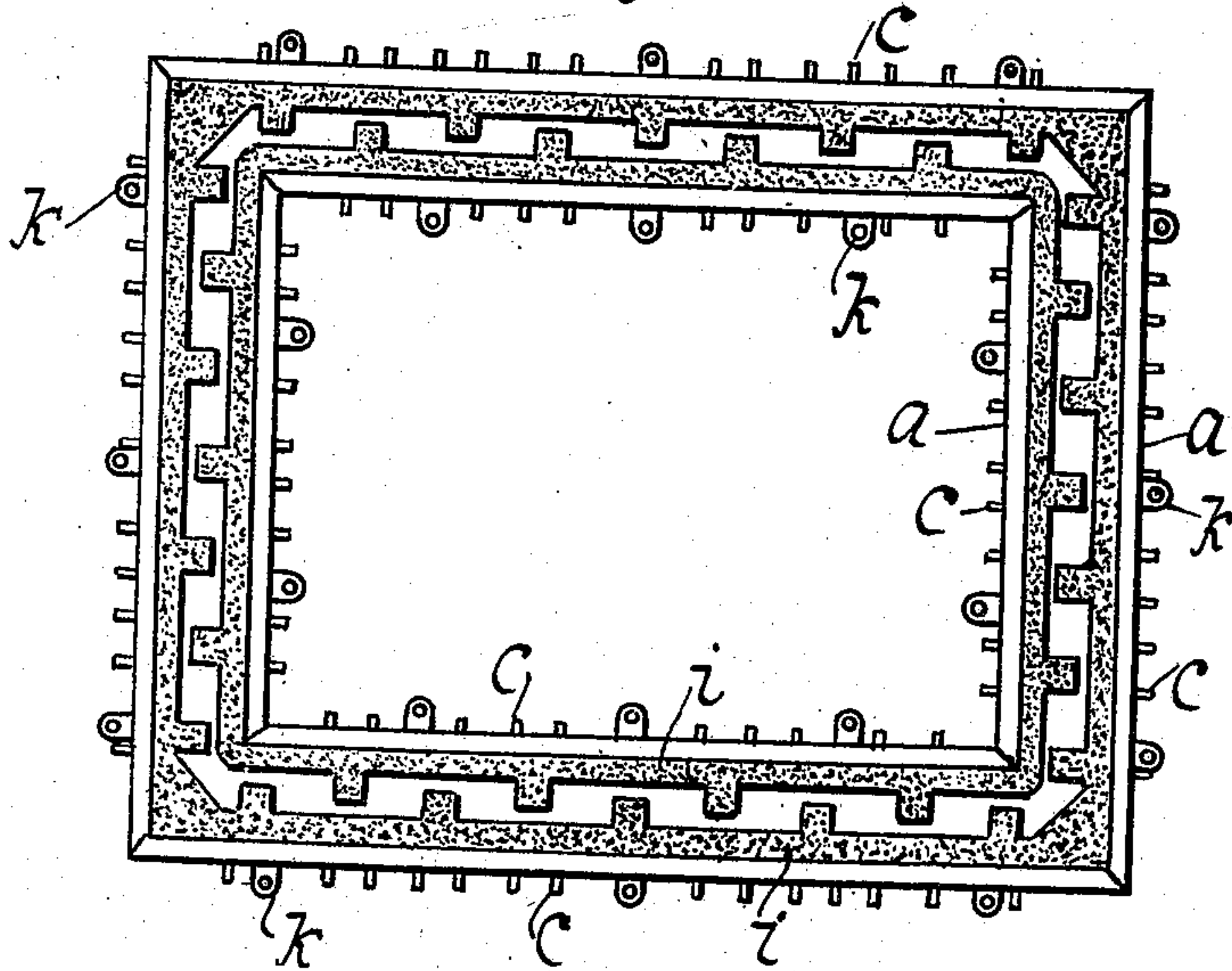
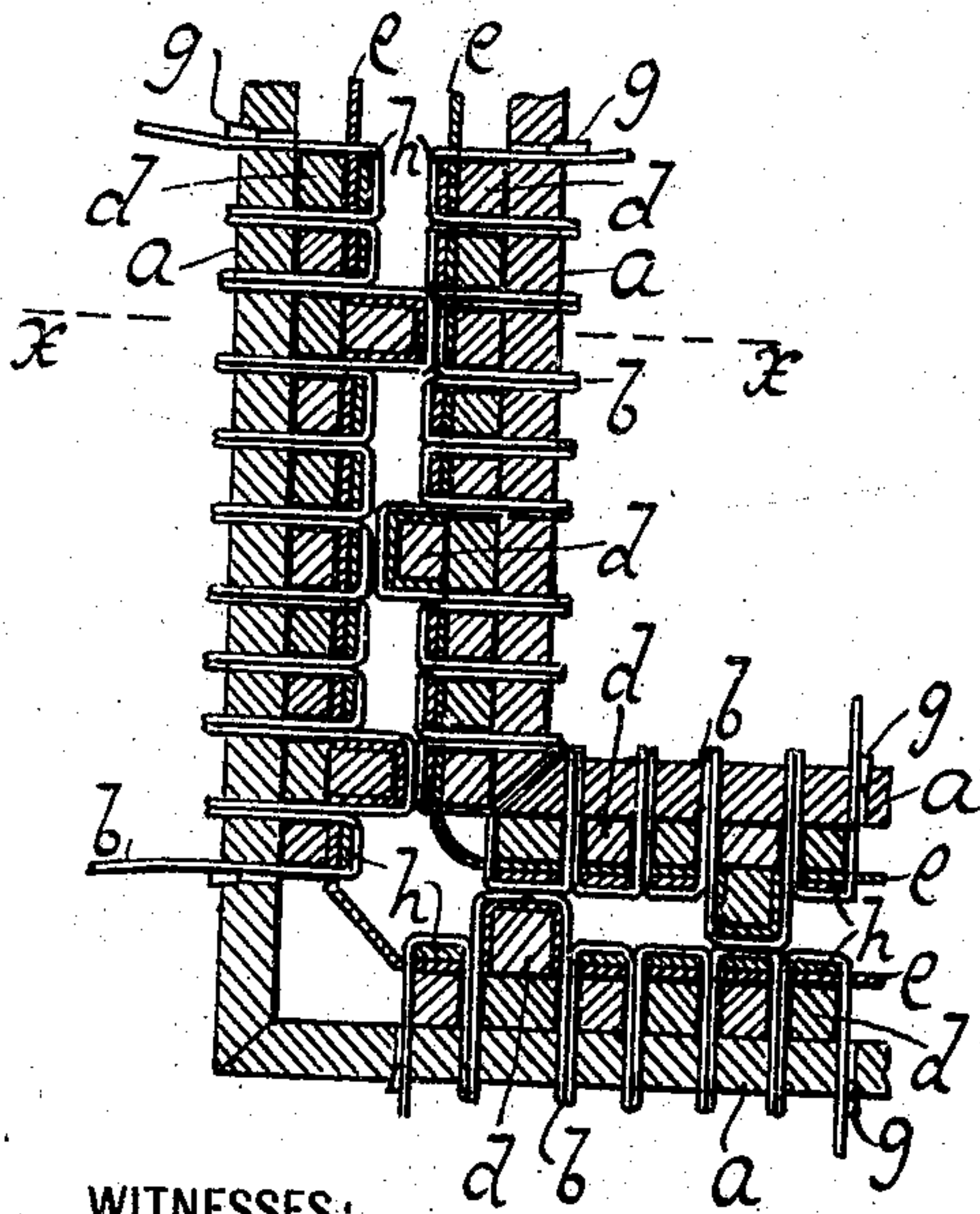


Fig. 2.



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 Edward Krumel

Fig. 3.

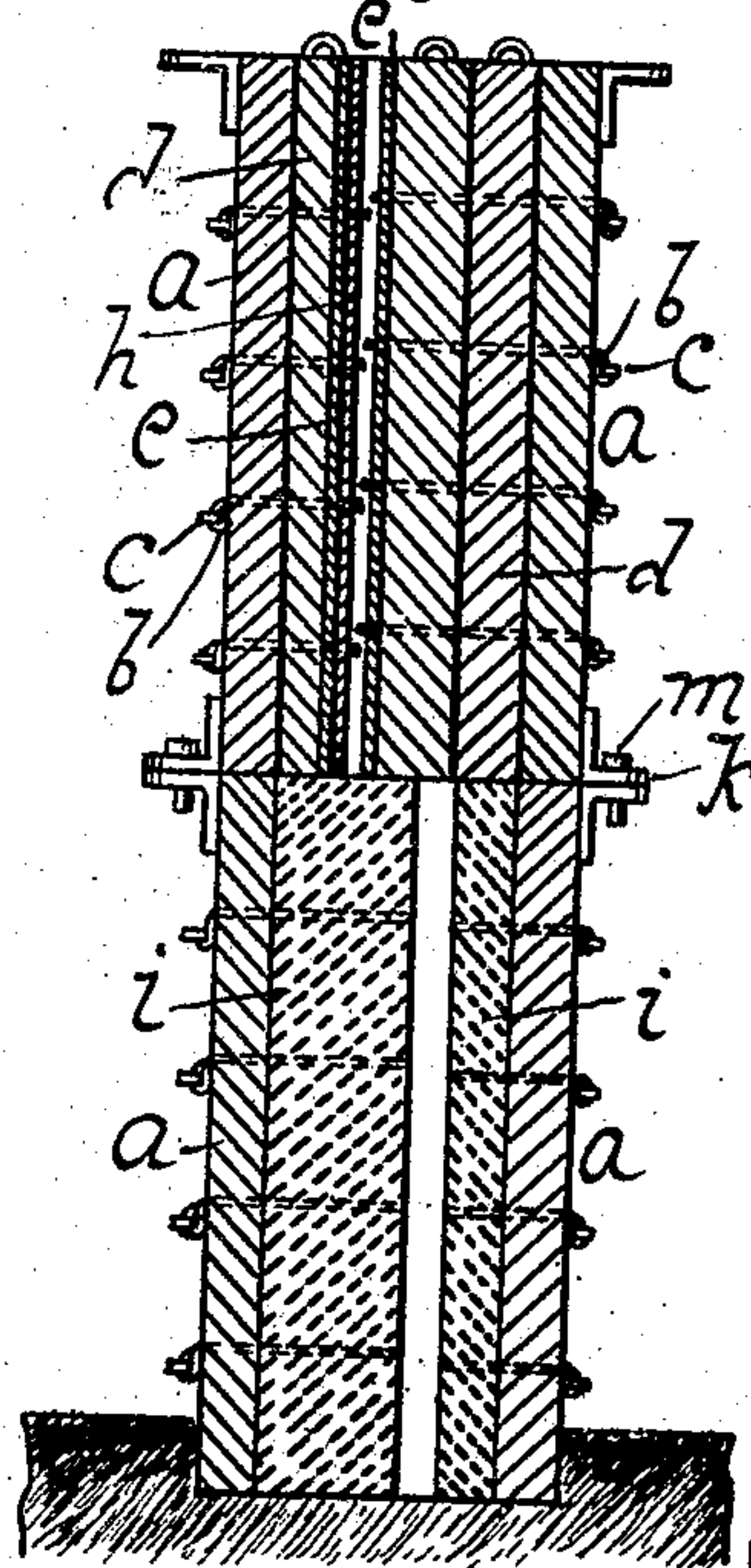


Fig. 4.



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2 SHEETS—SHEET 2.

Fig. 5.

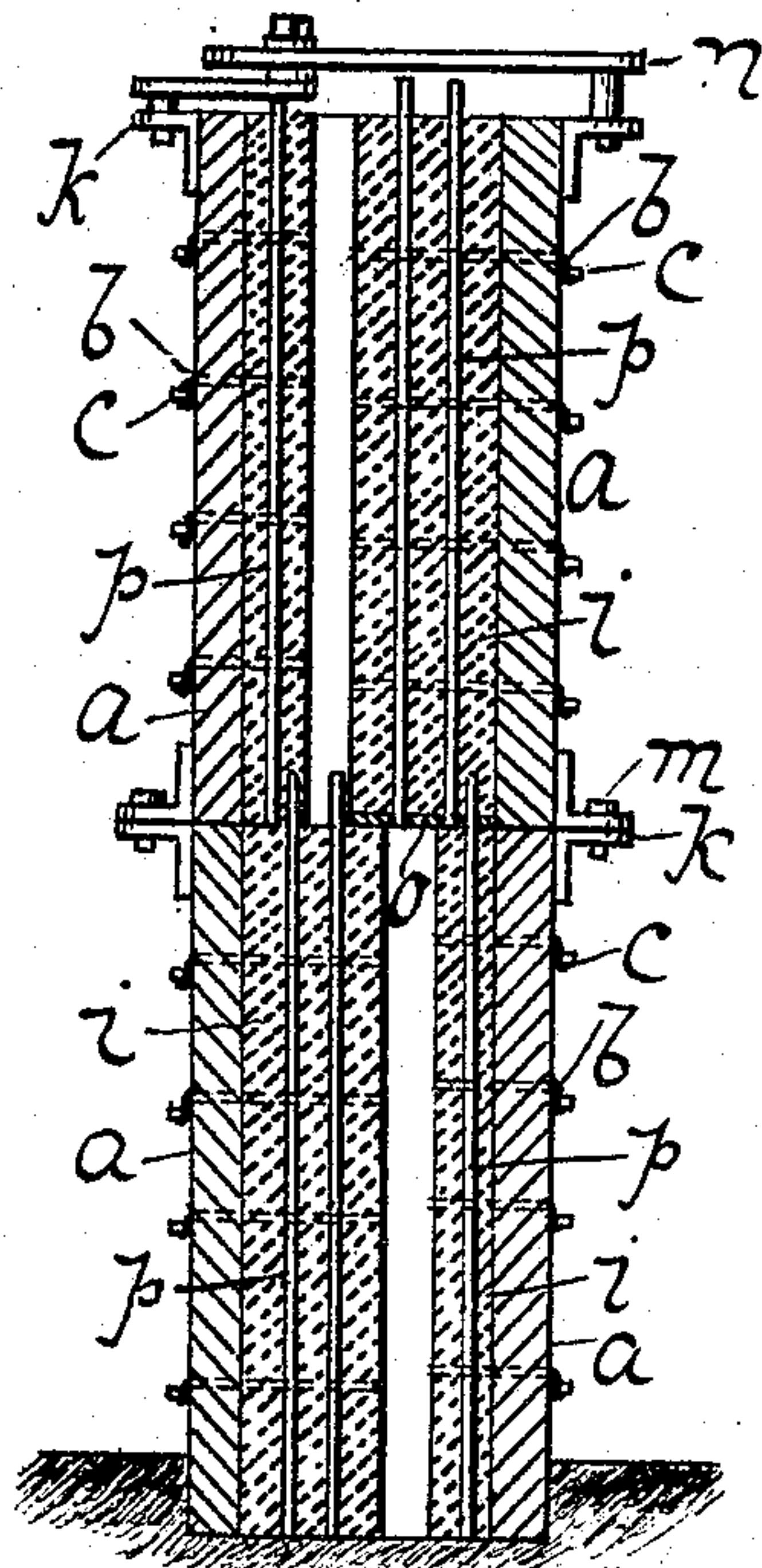
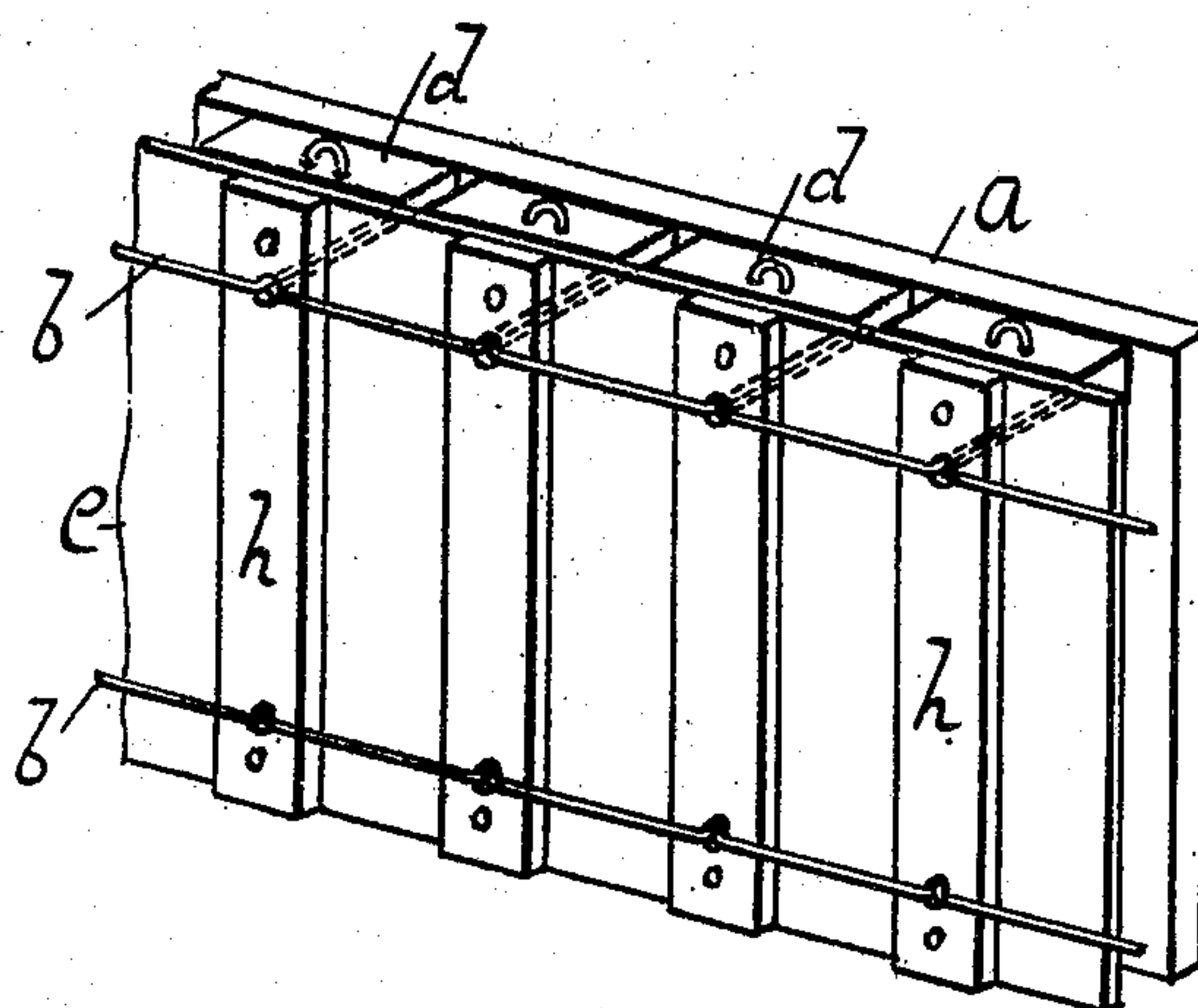


Fig. 6.



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CONCRETE-WALL CONSTRUCTION.

No. 924,405.

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Patented June 8, 1909.

Application filed June 19, 1908. Serial No. 439,440.

To all whom it may concern:

Be it known that I, GEORGE W. VOUGHT, a citizen of the United States, residing at Hollis, in the county of Queens and State of New York, have invented new and useful Improvements in Concrete-Wall Construction, of which the following is a specification.

This invention provides a means or method for constructing walls by which expensive machinery is eliminated and a wall can be constructed similar to one constructed of blocks and of any shape desired.

This invention is set forth in the following specification and claims and illustrated in the annexed drawing in which:—

Figure 1 is a plan view of a wall course construction according to this invention; Fig. 2 is a plan view like Fig. 1 showing a preliminary stage in the construction. Fig. 3 shows two wall courses superposed and in section along xx Fig. 2. Fig. 4 shows a needle. Fig. 5 shows a modification. Fig. 6 shows flexible material with stiffening strips applied.

In this drawing is shown a series of planks or boards a of suitable material and suitable length or breadth. These planks can be of metal or other material and are perforated for the drawing therethrough of sewing threads or wires b presently explained which strands b can be temporarily held by being looped to pegs c in the boards. These boards can be faced to represent stone blocks.

Along the board are formed pockets by means of blocks d and flexible material such as water proof or roof paper or the like e . A suitable needle or needles shaped like a crocheting hook f Fig. 4 are passed through the perforations in the boards and between the block and through the paper and seizing the sewing strand b is made to draw the same through the paper and the board when the thread or strand can be looped or caught over a peg c . At the end or the start of the sewing the thread can be secured by a plug g driven into a perforation in the board. Stiffening strips or laths h can be held by the sewing b against the backs of the paper strip e at one or more of the filling blocks d . I have found that by cutting the lath in the desired length and tacking same suitably spaced on the roofing paper Fig. 6 and making the holes for sewing in the center of the lath that I can use the same length of paper as often as desired. When a series of blocks d have thus been applied to the board a some of the

blocks are pulled out and the resulting space or pocket between the flexible layer e and the board a is filled with concrete i . As a block is withdrawn to form a space for concrete filling such withdrawn block can be used to be sewed with tar paper to the board in advance of the filling operation so that the operation can be continuous.

In Fig. 1 the two spaced courses of cement are shown with serrated faces lying toward one another. These serrations or protruding tongues can be formed by inclosing in the tar paper e at suitable intervals a double or greater thickness of blocks d forming extended pockets or spaces to be filled by cement.

By making a tongue of a superposed wall or cement layer lap over an oppositely located tongue of a lower wall layer such tongues will have a bonding action. Air spaces can also be formed in the double wall as seen in Fig. 1.

When a cement course is finished as indicated by the cement i in Fig. 3 a superposed layer can be added as indicated by the blocks d in such figure showing the commencement of constructing a new course according to this process. The sewing having been cut to allow the withdrawal of the stiffeners h and paper e from the lower course the upper course can be started.

The sewing strands or wires b can be left adhering in the cement when the boards are removed to serve for the adherence of dressing when such dressing is to be applied.

The boards a have brackets or attachments k which with bolts or like removable fastenings m serve to hold a board upright on a lower board. Construction up to any height can be obtained by superposing a number of courses.

An upper board a can be set flush on or more or less back or forward on a lower board to cause a course of concrete to line with or form an offset with respect to an adjacent course.

The blocks d can have handles in form of eyes or ring screws.

The boards of the bottom course can be placed on top of the boards of the second course to continue the building up of the wall.

Window or door openings can be obtained by leaving a certain number of blocks in place so that no cement filling will occur at the places where the blocks are left in place.

The upper parts of the boards *a* during the operation can be held in position by adjustable rods *n* Fig. 5 which can be hooked to the brackets *k* until the operation is finished.

5 To prevent cement falling into the air spaces while constructing a bonding tongue, a piece of paper or the like can be placed over such a space as indicated at *o*. Reinforcing rods *p* of iron or the like can be inserted into the

10 concrete.

What I claim is:—

1. In an apparatus for constructing concrete walls, the combination with boards placed one against the other and blocks placed thereagainst and also placed one against the other of flexible material extended over the blocks and connected to the boards so as to inclose the blocks while leaving such blocks removable for the resulting

20 spaces to be filled with concrete.

2. In an apparatus for constructing concrete walls, the combination with boards of blocks placed against said boards, flexible material with stiffening strips placed against said blocks, strands securing the flexible material to the blocks, said blocks being removable so as to leave spaces to form pockets for filling material and the strands being severable so as to be cut for the removal of the

30 flexible material when the filling material in the pockets is set.

3. In an apparatus for constructing concrete walls the combination with perforated boards of blocks placed against the boards, flexible material on the blocks, sewing strands passed through the perforations for securing the flexible material about the blocks to the boards and pegs for clamping the strands in place, said blocks being re-

40 movably held so that they can be withdrawn for the resulting spaces to leave pockets for receiving filling material or concrete.

4. An apparatus for forming concrete walls consisting of boards, blocks placed

against said boards, flexible material en- 45 gaging the blocks and connected to the boards, said blocks being removably held between the flexible material and boards so as to leave spaces or pockets when withdrawn, such blocks being superposed at intervals so 50 as to cause a cement filling for forming tongues or bonds.

5. In an apparatus for forming concrete walls, the combination with boards of blocks placed against said boards, and flexible ma- 55 terial placed against the blocks and connected to the boards, the blocks being removable so as to leave spaces between the flexible material and boards to form pockets for filling material, the said boards having 60 brackets for allowing of attachment to a second board.

6. An apparatus for forming concrete oppositely located and suitably spaced walls consisting of two courses of oppositely lo- 65 cated suitably spaced boards, blocks placed against each course of said boards, and flexible material placed against the blocks and connected to the boards, the said blocks being removable so as to leave pockets for 70 filling material, and covering pieces for said spaces between the courses.

7. An apparatus for constructing concrete walls consisting of boards, blocks placed against said boards, and flexible material 75 connected to the boards, said blocks being removable to leave spaces or pockets for concrete filling, and holding rods applied to the boards to keep the latter uniformly spaced apart.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEORGE W. VOUGHT.

Witnesses:

CHRISTIAN ALMSTAEDT,
EDWARD NIESUER.