

No. 734,593.

PATENTED JULY 28, 1903.

R. M. McDOWALL.
ARMORED CONCRETE FLOOR.
APPLICATION FILED NOV. 8, 1902.

NO MODEL.

Fig. 1.

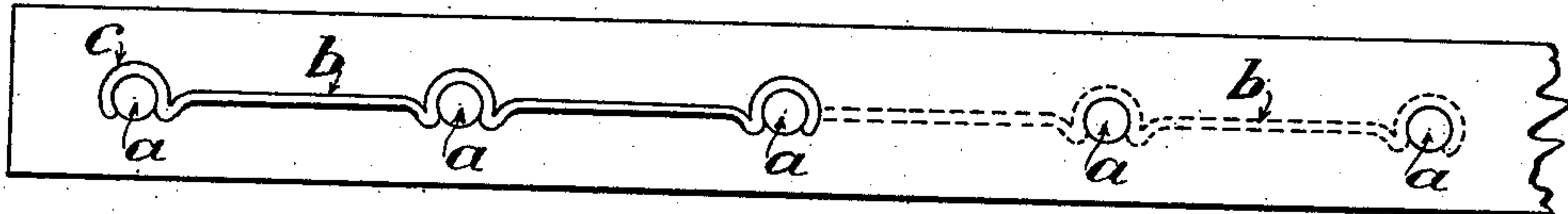
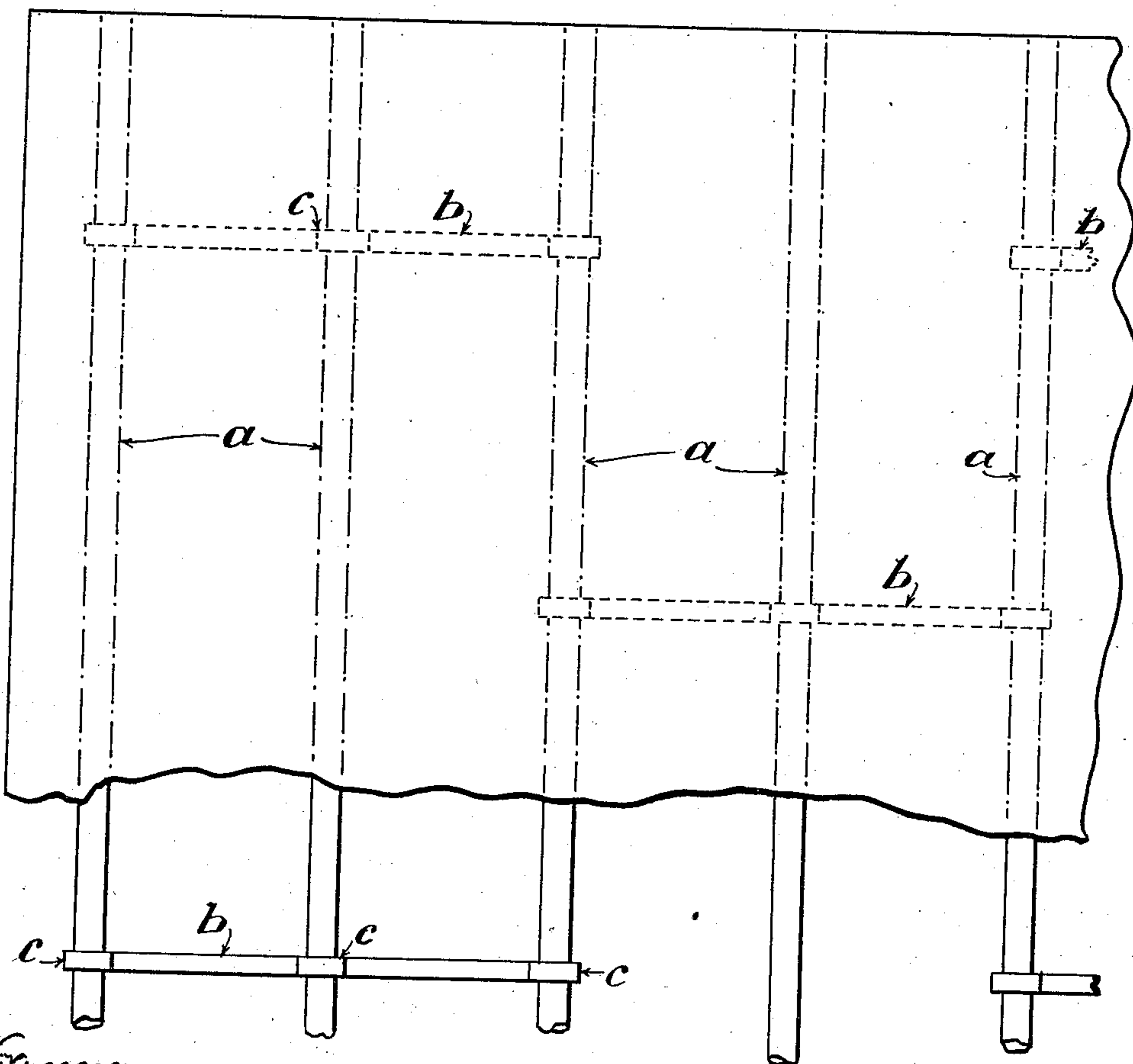


Fig. 2.



Witnesses:-

Benjamin Clark
Charles H. Briggs.

Inventor:-

Robert Moffat McDowall.
per:- *E. Eaton.*
His attorney.

UNITED STATES PATENT OFFICE.

ROBERT MT. McDOWALL, OF CASTLEFORD, ENGLAND.

ARMORED CONCRETE FLOOR.

SPECIFICATION forming part of Letters Patent No. 734,593, dated July 28, 1903.

Application filed November 6, 1902. Serial No. 130,305. (No model.)

To all whom it may concern:

Be it known that I, ROBERT MOFFAT McDOWALL, a subject of the King of Great Britain, and a resident of Castleford, in the county of York, England, have invented certain new and useful Improvements in Staying and Securing Rods in Armored Concrete for Fireproof Buildings, Floors, and other Purposes, (for which I have applied for a patent in Great Britain, No. 14,126, dated June 21, 1902,) of which the following is a full, clear, and exact specification.

This invention relates to an improved method for staying and securing rods in armored concrete for fireproof buildings, floors, and other purposes, the object being to form a more rigid foundation or framework for the concrete. This is effected by connecting or binding the rods employed in armored concrete at intervals, a convenient method being the employment of metal clips, which are clipped onto the rods, said clips being formed singly or in a series. I may, if desired, use any form of clip, that which I have found to be most suitable being a flat bar having curved gripping portions.

Referring to the annexed drawings, Figure 1 represents an end elevation through a concrete floor, showing my invention in use. Fig. 2 represents a plan view of same, the flooring being broken away for clearness.

In constructing concrete floors I connect or bind together the ordinary tie or supporting rods *a* by means of bars *b*, preferably constructed of steel, said bars being so bent or shaped, as shown at *c*, as to form clips adapt-

ed to clip the tie or supporting rods *a*, as shown. Holes or clips may be provided in the bars *b*, if desired, for the purpose of supporting upright rods for forming walls or partitions. The number of clips *c* and the distance apart of same may vary as required, the opening to the clips being smaller than the width of the tie or supporting rods aforesaid, so that force has to be applied to place them in position, thus causing a more rigid structure than hitherto.

By this invention it will be seen that a more rigid foundation or framework for constructing concrete floors is obtained than hitherto, the clipping-bars aforesaid being easily and readily placed in position.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

In armored concrete floors for fireproof buildings and other purposes, the particular construction of same, comprising rods forming the main framing and bars having a series of clips formed therein and adapted to clip the said rods, the opening to said clips being smaller than the width of the said rods, concrete embedding the same, substantially as described and illustrated herein.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of September, 1902.

RT. MT. McDOWALL.

Witnesses:

JOHN MILLER,
ANDREW THOMSON.