

E. G. DU MAZUEL.  
MEANS FOR REINFORCING CONCRETE.  
APPLICATION FILED JAN. 4, 1909.

922,305.

Patented May 18, 1909.  
2 SHEETS—SHEET 1.

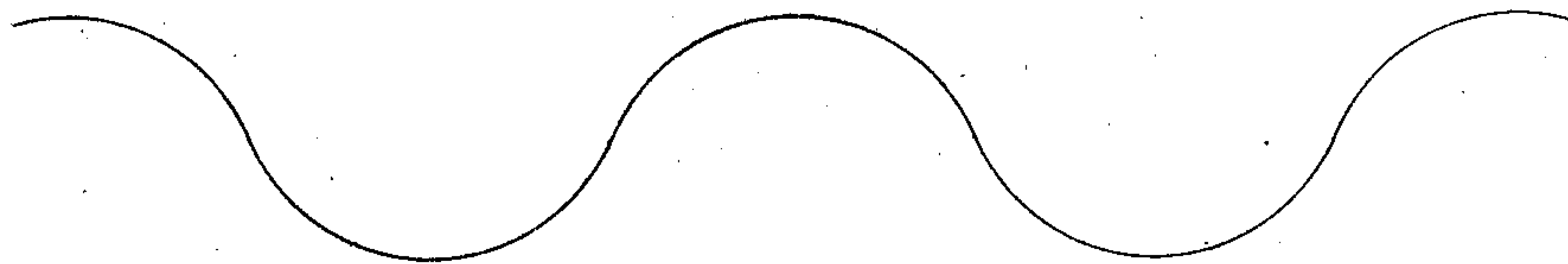


FIG. 1.

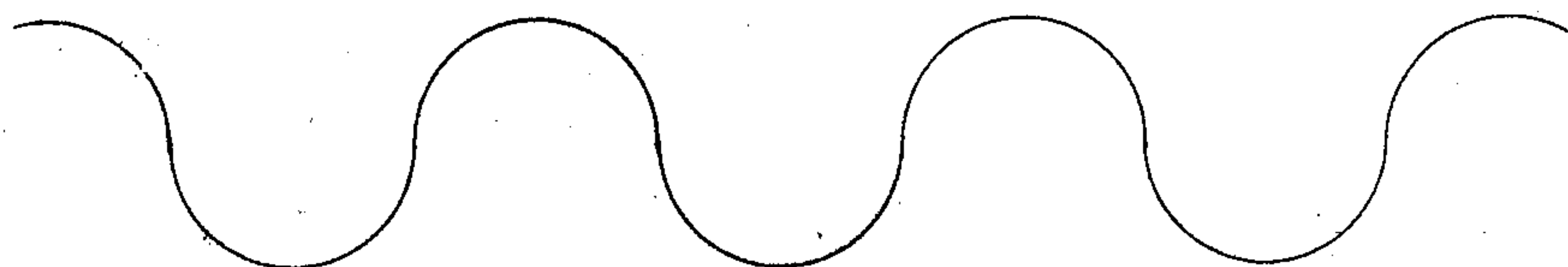


FIG. 2.

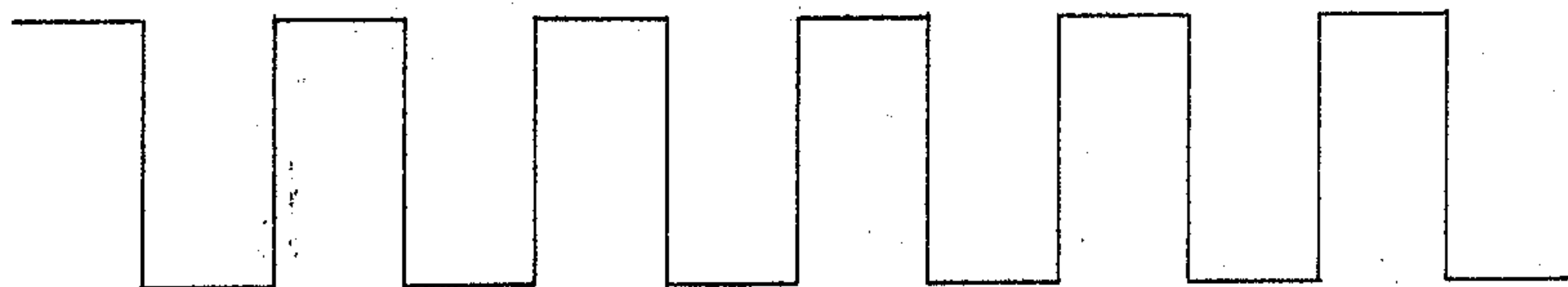


FIG. 3.

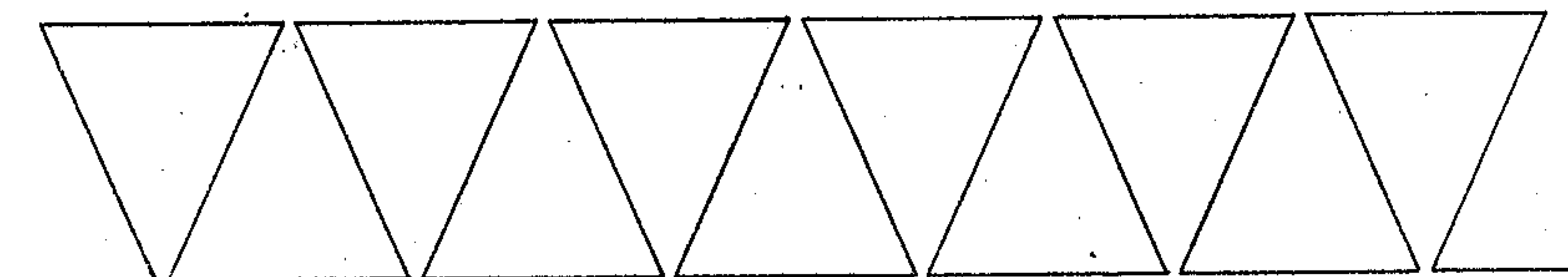


FIG. 4.

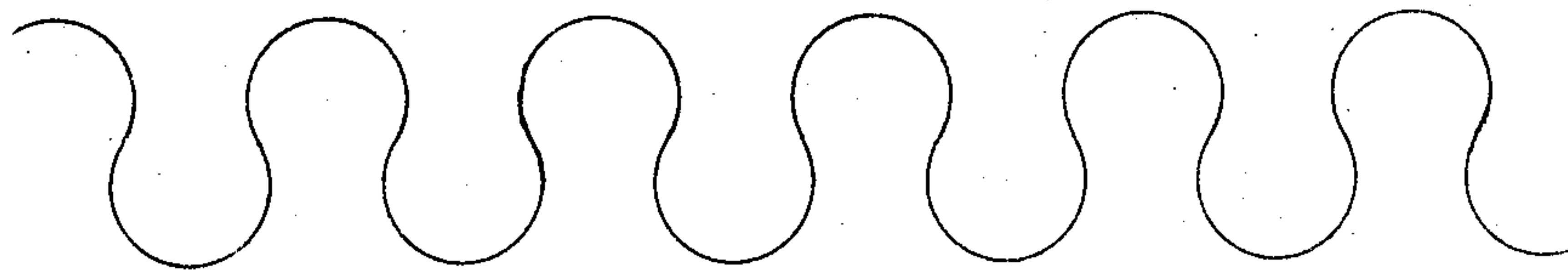


FIG. 5.

WITNESSES:

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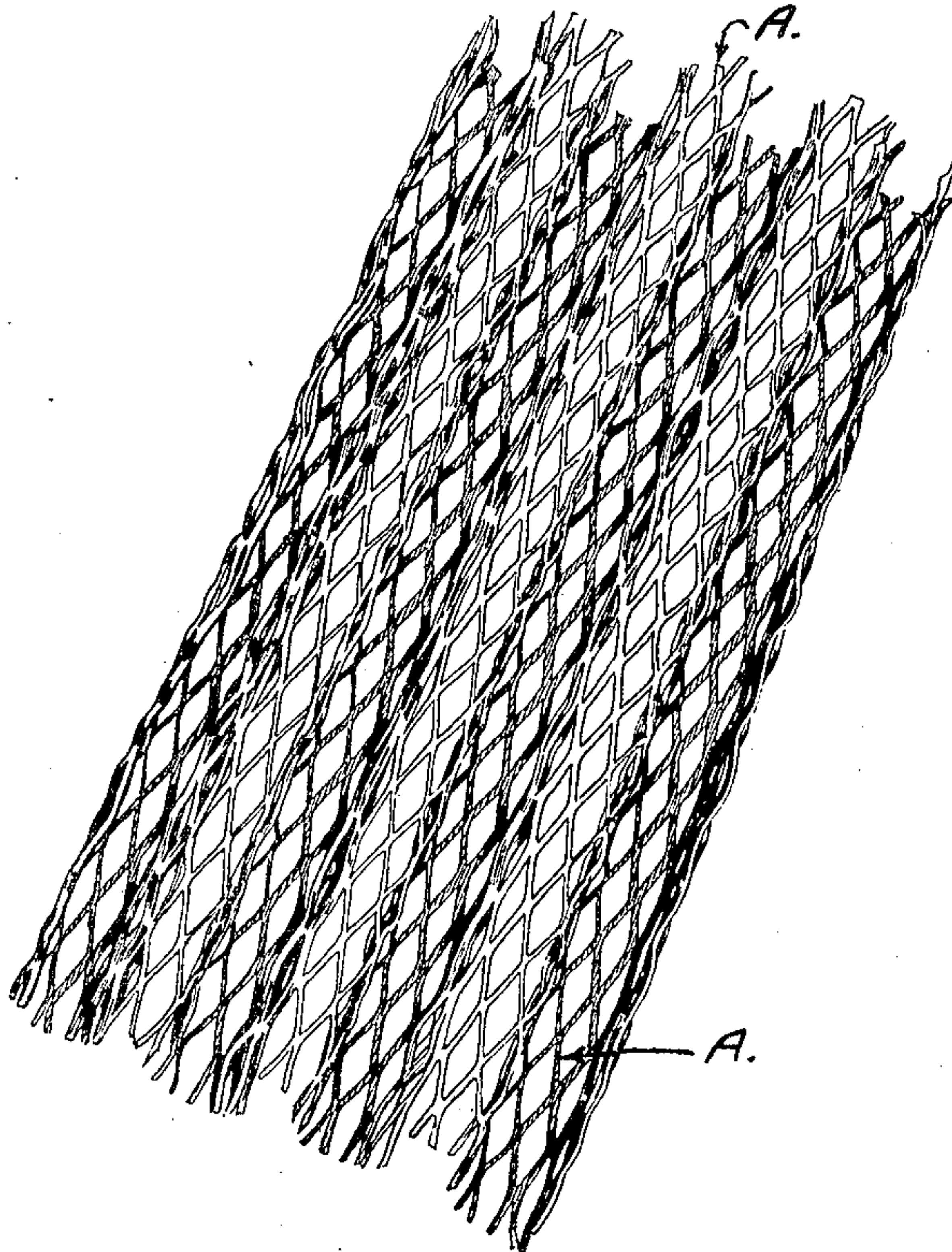


FIG. 6.

WITNESSES:

J. Matthews  
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# UNITED STATES PATENT OFFICE.

EDMOND G. DU MAZUEL, OF NEW YORK, N. Y.

## MEANS FOR REINFORCING CONCRETE.

No. 922,305.

Specification of Letters Patent.

Patented May 18, 1909.

Application filed January 4, 1909. Serial No. 470,678.

*To all whom it may concern:*

Be it known that I, EDMOND G. DU MAZUEL, a consulting engineer, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented an Improved Means for Reinforcing Concrete, of which the following is a specification.

My invention relates to reinforcing members for concrete and the like; said members consisting of expanded metal fabrics, or the like.

It has for its object to so form or corrugate such material that, not only is the same sufficiently rigid to be utilized in the construction of walls, ceilings, floors, partitions, etc., without the aid of the usual furring, stiffening bars or beams, etc., but, so that the strands of said metallic fabrics spirally follow the corrugations in lines diagonal to the axes of said corrugations thus forming a multitude of small trusses, or a continuous series of small trusses; and giving an ideal and symmetrical distribution of internal stresses, thereby causing the maximum amount of concrete to be in compression.

The nature of my invention will be best understood in connection with the accompanying drawings, in which—

Figures 1, 2, 3, 4, and 5 are profiles of some of the numerous forms of corrugations to which the said material is shaped. Fig. 6 is a perspective view of a reinforcing member; A—A, designating a single strand of same.

Referring to the drawings, it will be noted that my improved reinforcing member consists essentially of an expanded metal fabric, or the like, shaped into any series of corrugations, but, where the strands of said metallic fabric or the like spirally and undulately follow the corrugations (A—A, Fig. 6) in lines diagonal to the axes of said corrugations with their sides substantially toward the axes of said corrugations; the corrugations shown in Figs. 1, 2, 3, being open, while those in Figs. 4 and 5 are closed or partly closed.

While I have shown some of the more prominent forms of corrugations, yet by the term corrugation I desire to include any of the forms which may be suited for this purpose.

The construction of my improved corrugated member possesses numerous advantages over the prior art such as; for example, giving maximum value to each particle of the expanded metal, or the like, formed to act in more than one plane; giving a better bond to the applied structural material which it reinforces, having its strands spirally and undulately follow its corrugations in lines diagonal to the axes of said corrugations whereby said strands are all under action; by its sufficient rigidity eliminating all formwork and skilled labor; and also permitting of a finished structure with the least amount of labor.

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

1. An expanded metal fabric, or the like, in cross section a series of corrugations, the strands of which fabric spirally follow the corrugations in lines diagonal to the axes of said corrugations whereby all of said strands are under action.

2. An expanded metal fabric, or the like, in cross section a series of corrugations, the strands of which fabric are flat and follow the corrugations in an undulatory spiral course whereby all of said strands are under action.

3. An expanded metal fabric, or the like, in cross section a series of corrugations, the strands of which fabric are flat with their sides substantially toward the axes of said corrugations and following the corrugations in an undulatory spiral course whereby all of said strands are under action.

4. A structural material comprising a series of reinforcing members formed by expanded metal fabric, or the like, in cross section a series of corrugations, the strands of which fabric spirally follow the corrugations in lines diagonal to the axes of said corrugations whereby all of said strands are under action.

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

E. G. DU MAZUEL.

Witnesses:

Z. MATTHEWS.

E. WRIGHT.