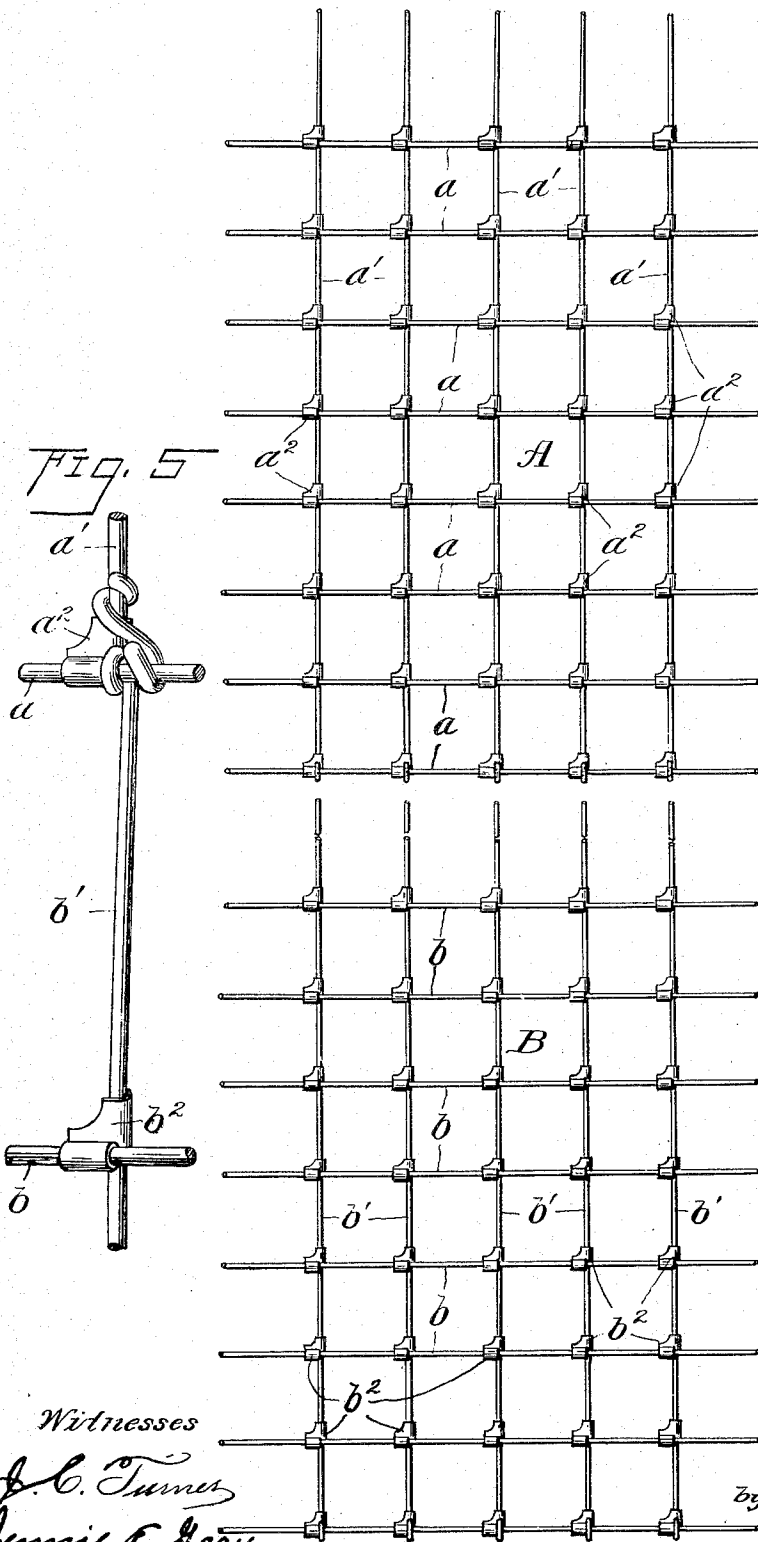


G. J. SCHADE.
 REINFORCING STRUCTURE.
 APPLICATION FILED MAY 19, 1908.

947,044.

Patented Jan. 18, 1910.

2 SHEETS—SHEET 1.



Witnesses
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Jennie E. Cary

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 by *A. O. Merkel*
 his Attorney.

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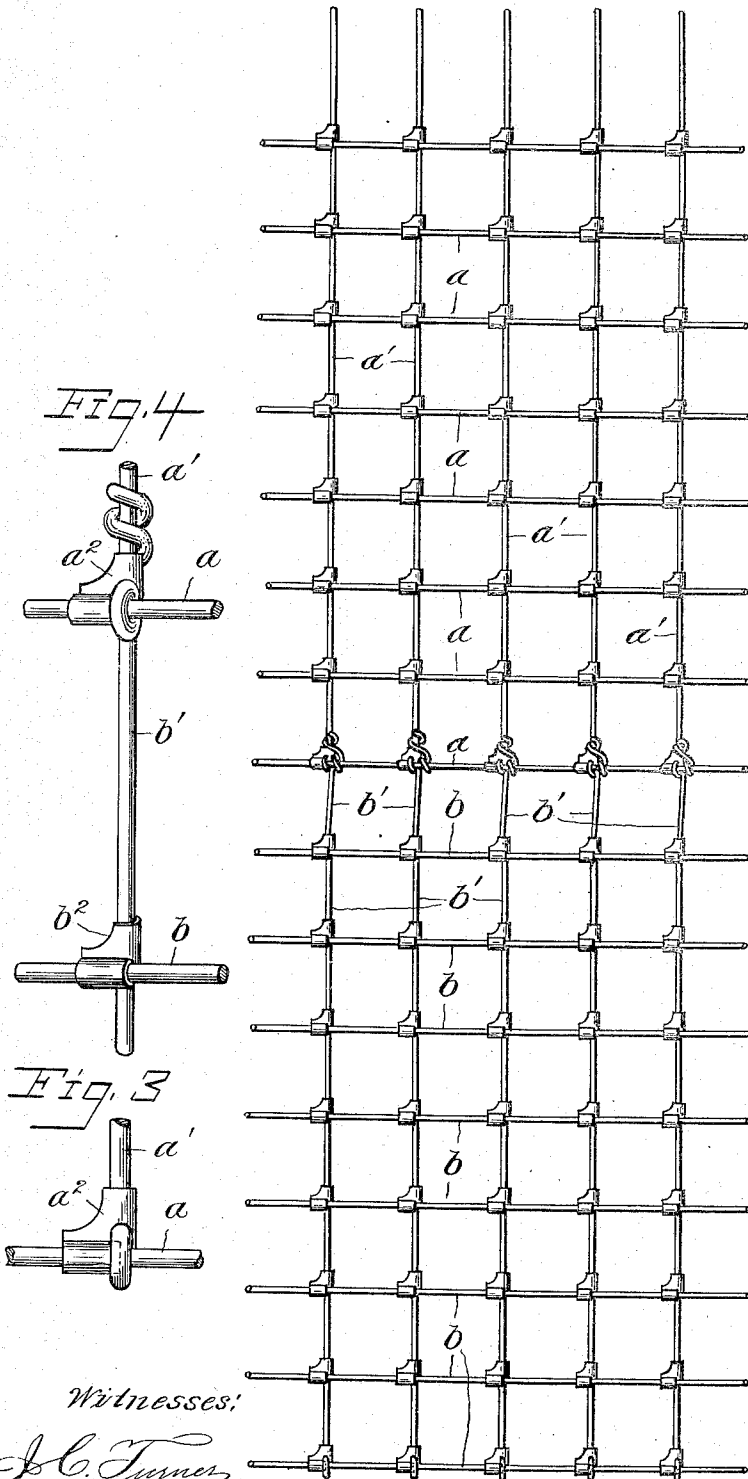
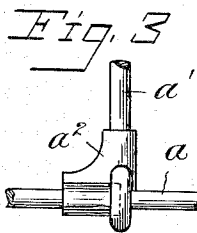


Fig. 2



Witnesses:
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UNITED STATES PATENT OFFICE.

GEORGE J. SCHADE, OF SANDUSKY, OHIO.

REINFORCING STRUCTURE.

947,044.

Specification of Letters Patent. Patented Jan. 18, 1910.

Application filed May 19, 1908. Serial No. 433,635.

To all whom it may concern:

Be it known that I, GEORGE J. SCHADE, a citizen of the United States, resident of Sandusky, county of Erie, and State of Ohio, have invented a new and useful Improvement in Reinforcing Structures, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

My invention relates to reinforcing structures for concrete roofs, floors, curtain-walls or the like, and particularly to structures made up of a plurality of strips each composed of crossed bands or wires formed into what is generally called reinforcing fabric.

The object of the invention is to provide a reinforcing structure in which the strips of fabric may be applied in a simple and economical manner and without the introduction of additional elements.

The said invention consists of means hereinafter fully described and particularly set forth in the claim.

The annexed drawings and the following description set forth in detail certain means embodying the invention, the disclosed means, however, constituting but one of various forms in which the principle of the invention may be used.

In said annexed drawings:—Figure 1 is a plan of two sections of wire reinforcing fabric detached, and of the form embodied in my invention. Fig. 2 is a plan of said two sections secured to each other to form a section of reinforcing structure. Figs. 3, 4 and 5 are full sized views of detail parts of such fabric and structure.

Referring to Fig. 1, A represents a section of wire fabric consisting of the longitudinal wires a and the cross-wires a' secured to each other at their intersections by any suitable means such as locking clips a^2 . The cross-wires a' terminate substantially at one extreme longitudinal wire a and are preferably bent as shown in Fig. 3, so as to impart to the structure a finished edge along said extreme wire a . The opposite ends of these cross-wires are permitted to project a substantial distance from the other extreme longitudinal wire a , and form a selvage edge of the fabric.

When it is desired to use a plurality of strips of the above described form for making up a reinforcing structure, the strips are

laid down so as to bring the finished edge of one strip adjacent to the selvage edge of another strip, as shown in Fig. 1, B representing a section of a second reinforcing strip of which b , b' , and b^2 , are the longitudinal wires, the cross-wires and the clips respectively. The selvage edge of the one strip is then secured to the adjacent finished edge of the other, by securing the projecting ends of the cross-wires as shown in Fig. 4 or to both the longitudinal and cross-wires, as shown in Fig. 5. The length of the projecting ends of the cross-wires is made such that they may be fastened as described and at the same time permit the distance between the longitudinal wire of the attached selvage edge and the longitudinal wire of the finished edge to be substantially equal to the normal distance between the intermediate longitudinal wires of the strips. This permits the resulting reinforcing structure to be uniform in construction, thereby presenting uniform mechanical conditions throughout. In order to further promote such uniformity I secure the cross-wires of the selvage edge rigidly to the finished edge so as to impart to the joints the same conditions as are presented by the joints between the cross and longitudinal wires at other parts of the structure. This I accomplish by several different methods, one of which is to bind the end of the cross-wires around the adjacent cross-wires of the other strip as shown in Fig. 4, inside and adjacent to the extreme locking clip. By this means it will be seen that a joint is produced which is rigid in so far as relates to any forces applied thereto in a direction perpendicular to the plane of the structure, such forces being those which the latter is most frequently called upon to resist. By bending the selvage edges of the cross-wires around the longitudinal wire first and then bending it around the corresponding cross-wire of the finished edge, as shown in Fig. 5, a joint is produced which is rigid as against forces applied in any direction. In this manner I produce a reinforcing element which, together with as many similar elements as may be required, may be used to form a reinforcing structure without the use of additional and separate means, such as links or other similar joining devices for connecting the adjacent strips of fabric, and which is uniform in its essential mechanical characteristics throughout the entire structure.

I therefore distinctly claim and desire to secure by Letters Patent:—

5 A reinforcing structure comprising two strips of reinforcing fabric, each including transverse or cross wires and longitudinal or line wires, the transverse or cross wires of the one strip being secured to one of the extreme lateral longitudinal or line wires thereof to form a finished edge, the trans-
10 verse or cross wires of the other strip projecting beyond the one extreme lateral line or longitudinal wire thereof to form a sel-

vage edge, the ends of such projecting selvage edge of the cross or transverse wires being wrapped around the finished edge longitudinal or line wire of the other strip and also around the transverse or cross wires of the latter. 15

Signed by me, this 5th day of May, 1908.

GEO. J. SCHADE.

Attested by—

J. F. HERTLEIN,
E. M. CROSSEN.