

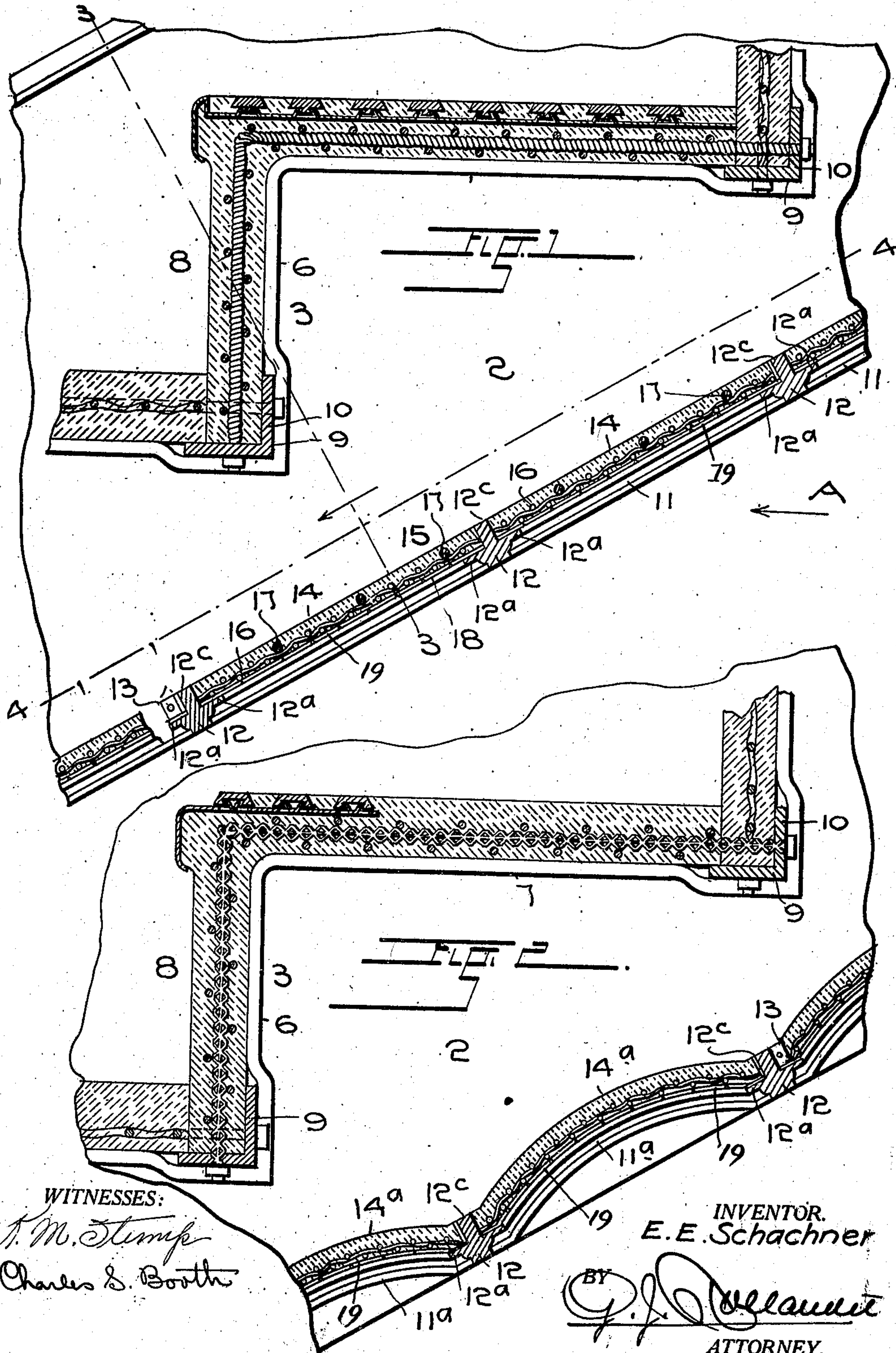
No. 894,801.

PATENTED JULY 28, 1908.

E. E. SCHACHNER.
SOFFIT STRUCTURE FOR STAIRCASES.

APPLICATION FILED OCT. 19, 1907.

3 SHEETS—SHEET 1.



WITNESSES:

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Charles S. Booth

INVENTOR.
E. E. Schachner

BY *J. J. O'Connell*
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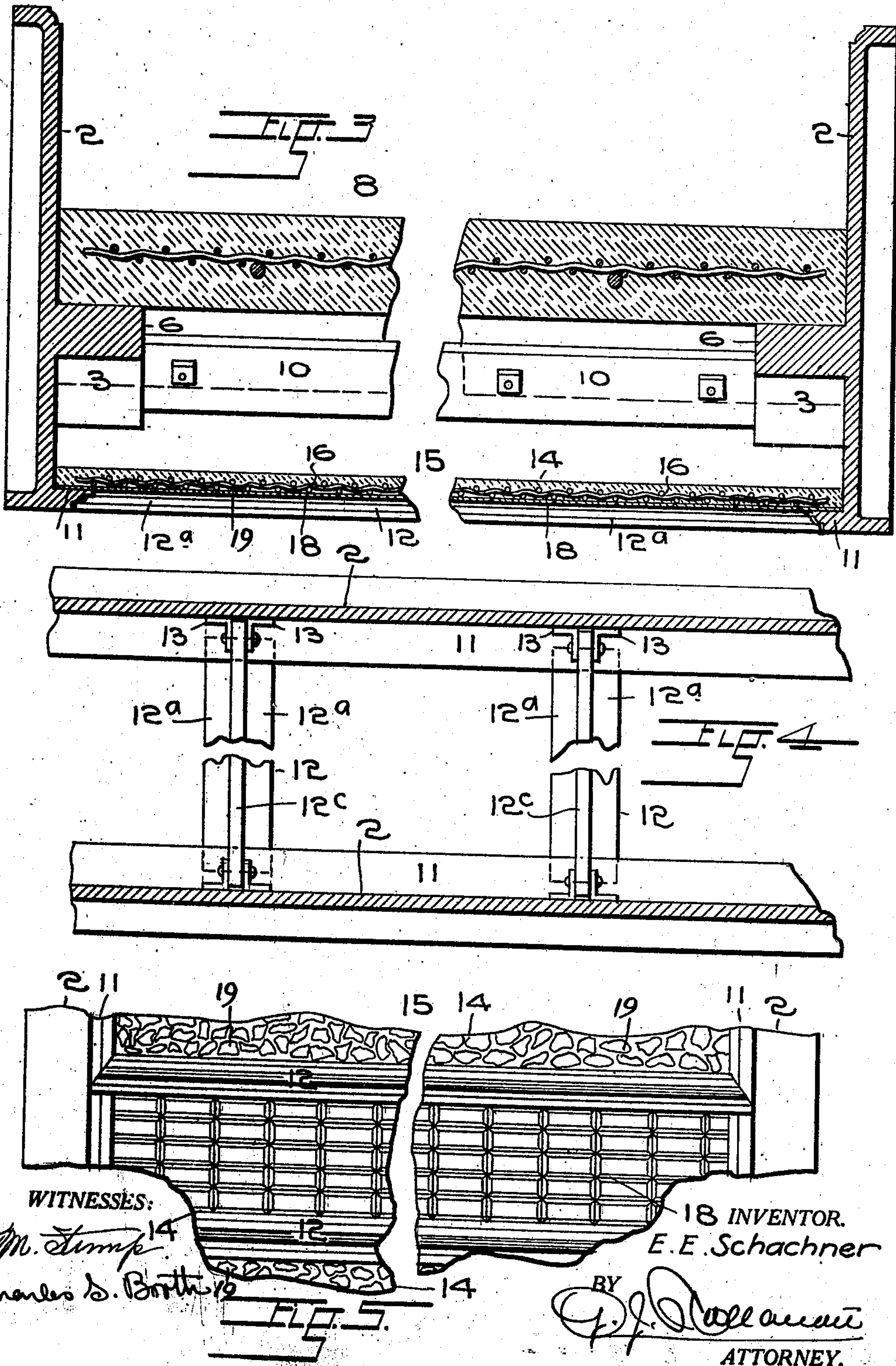
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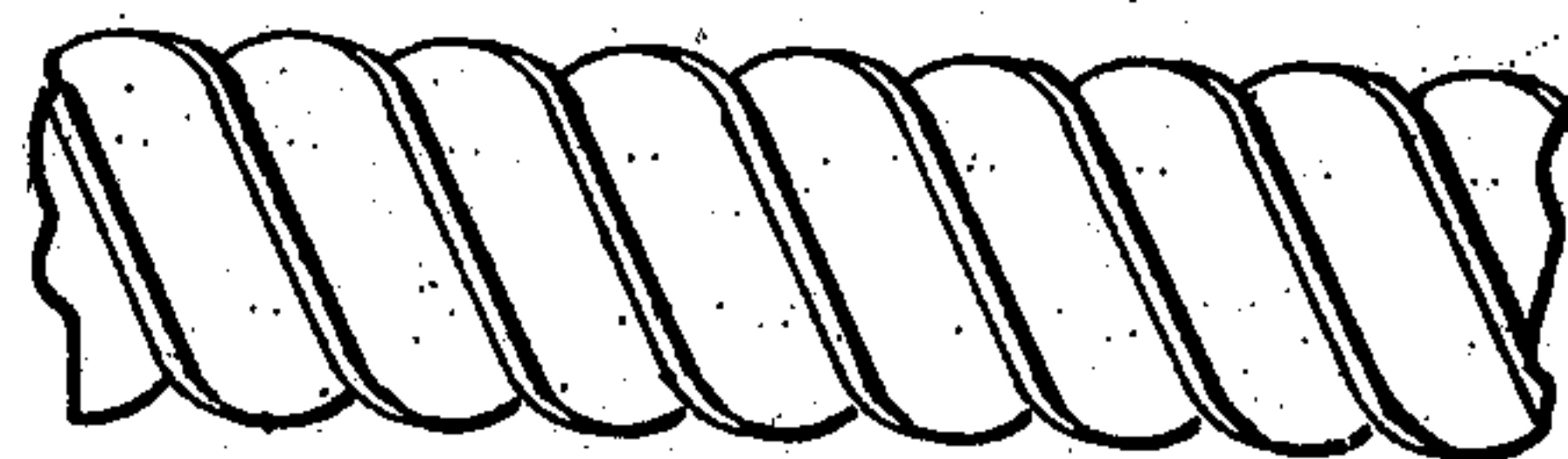
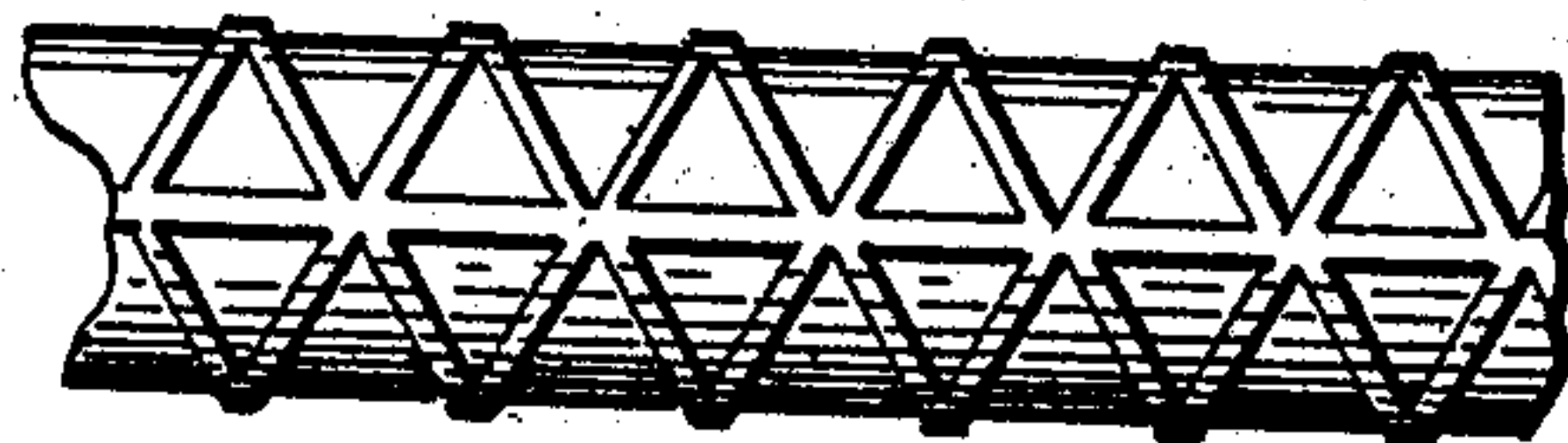
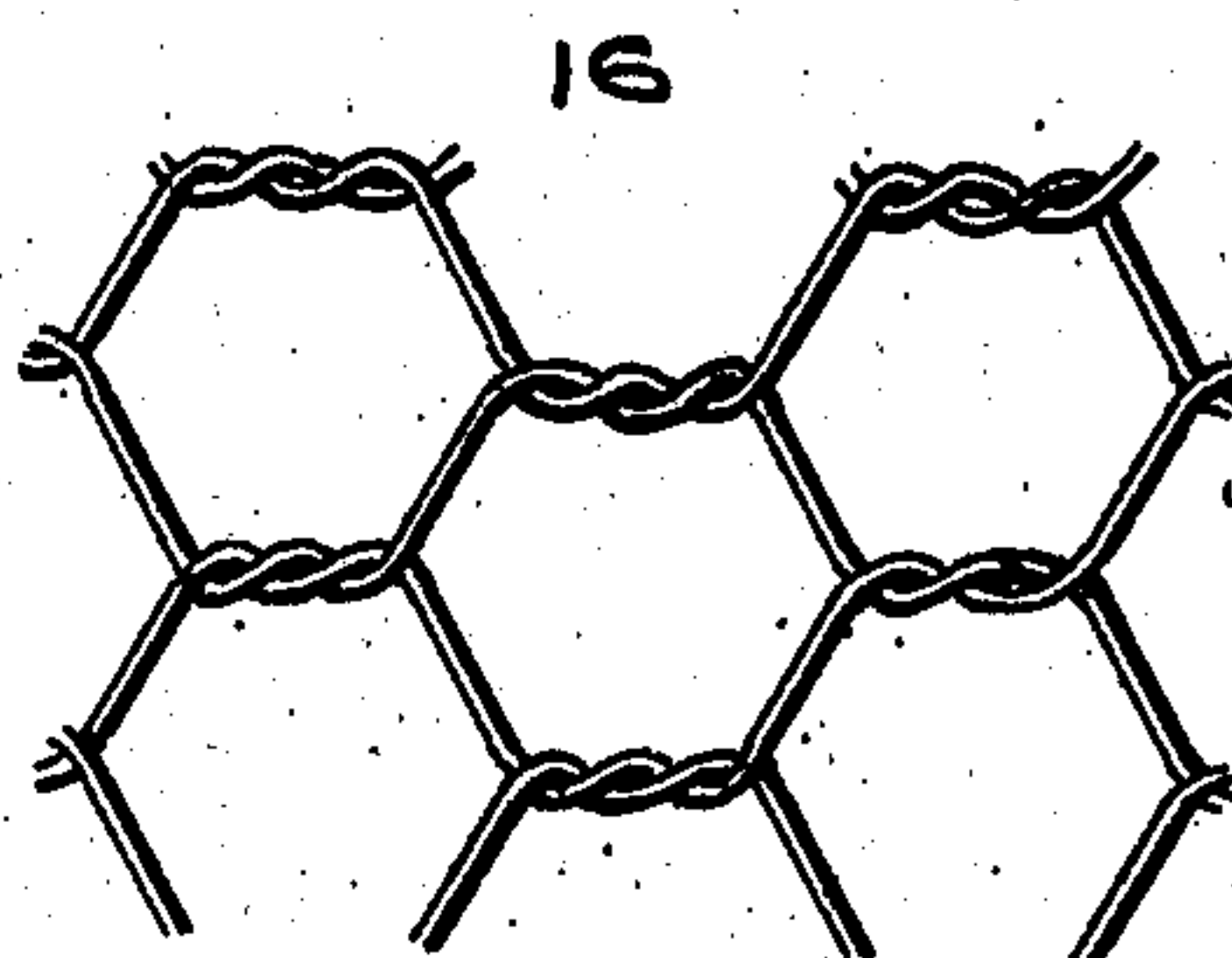
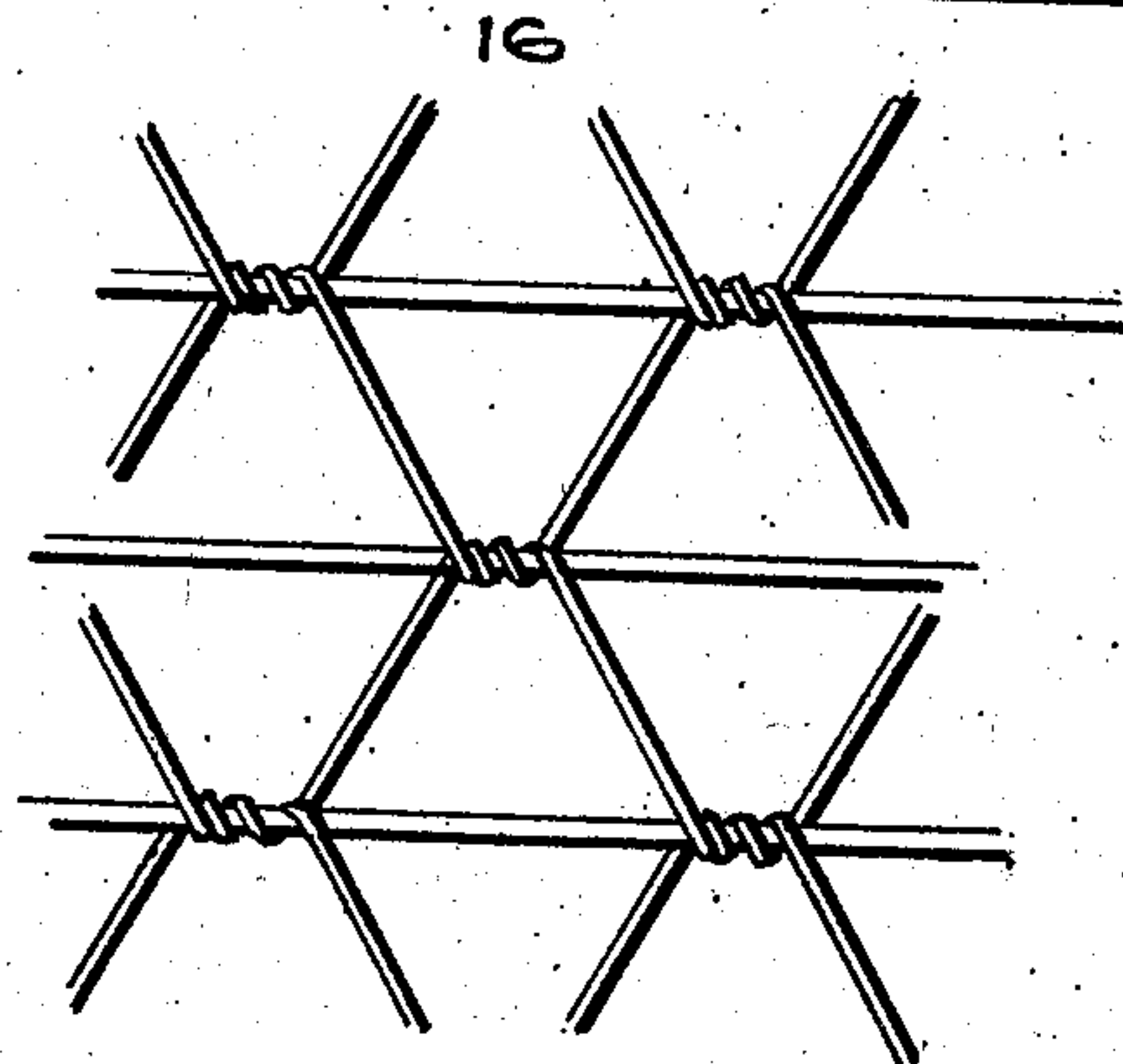
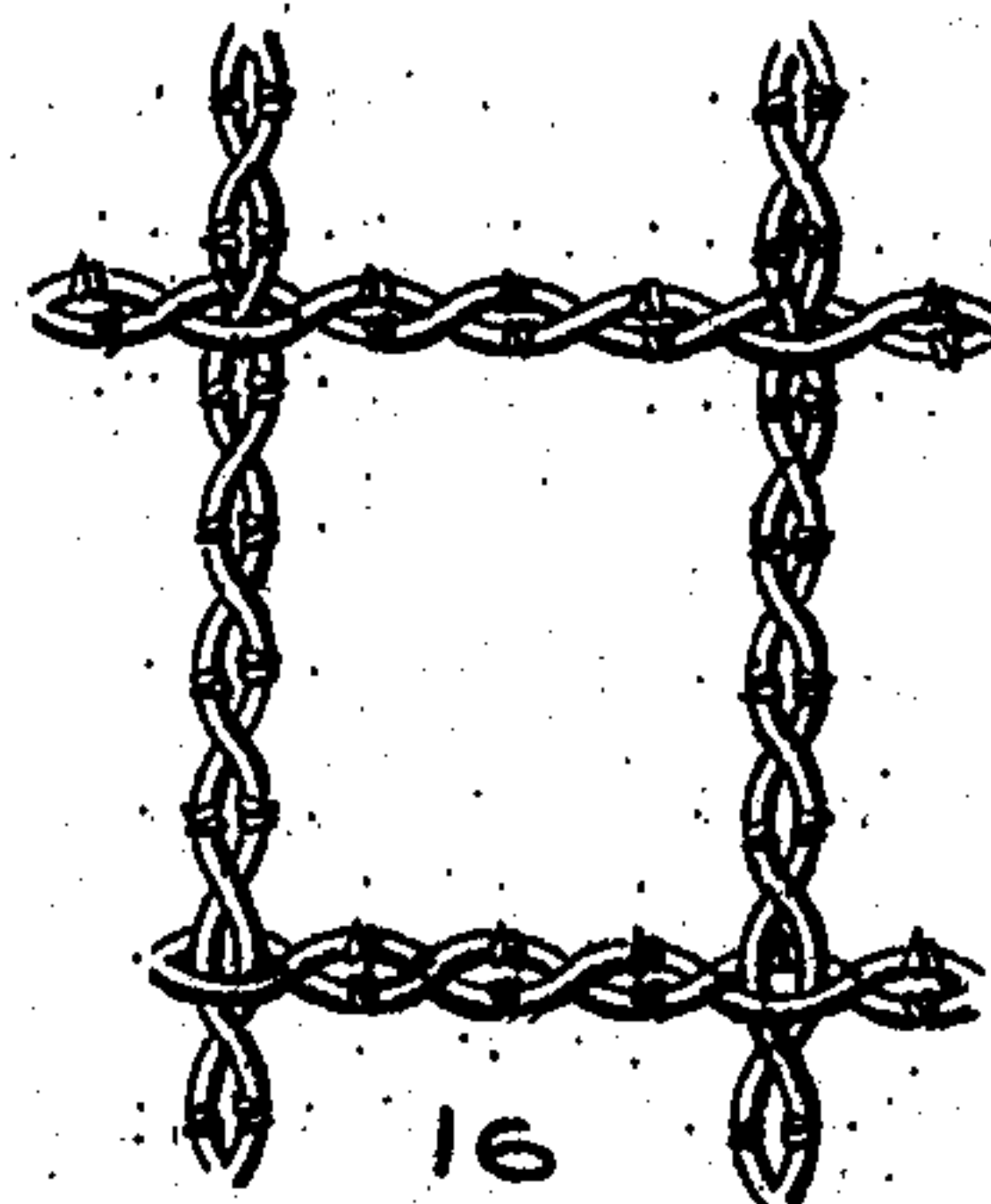
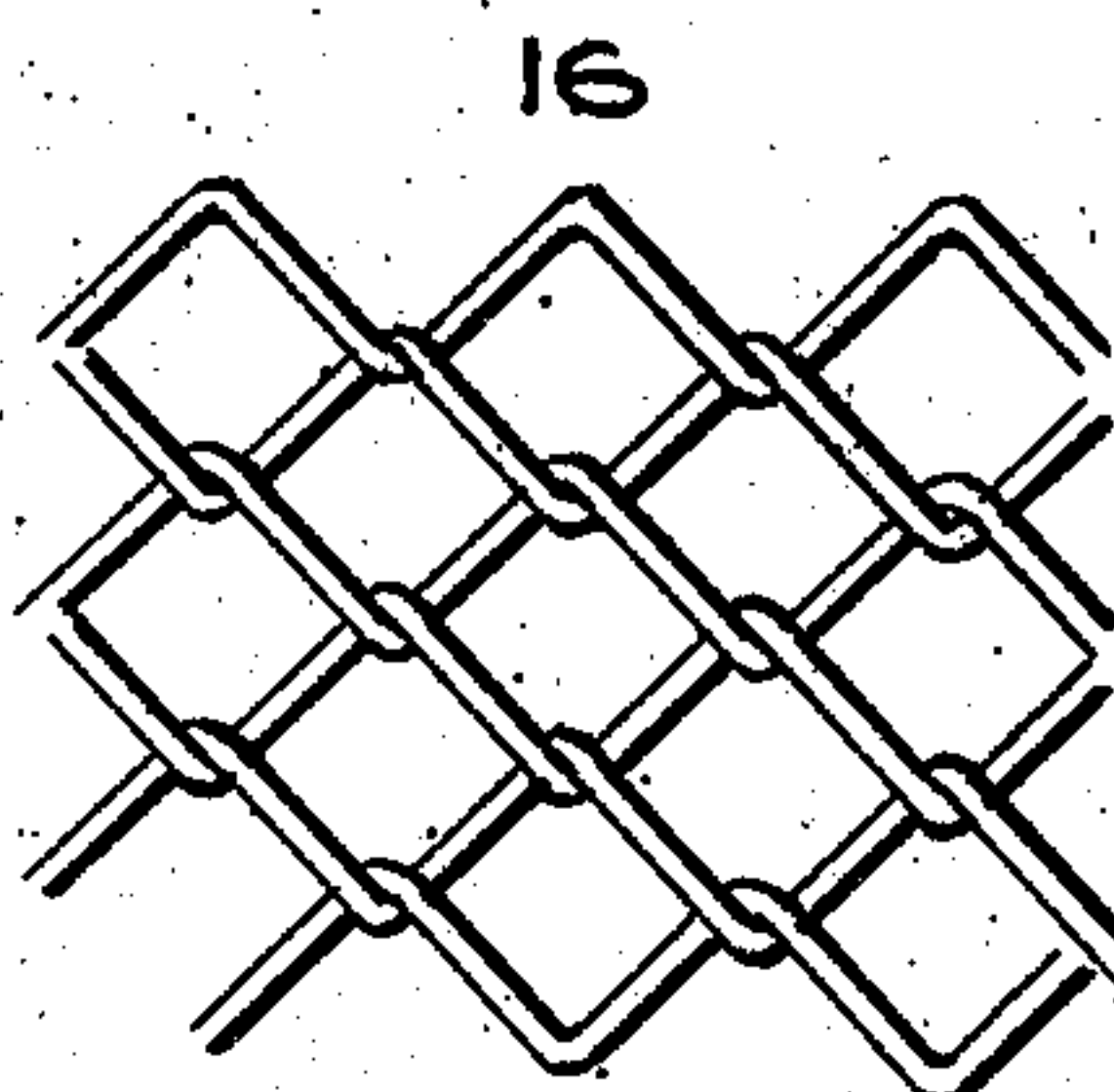
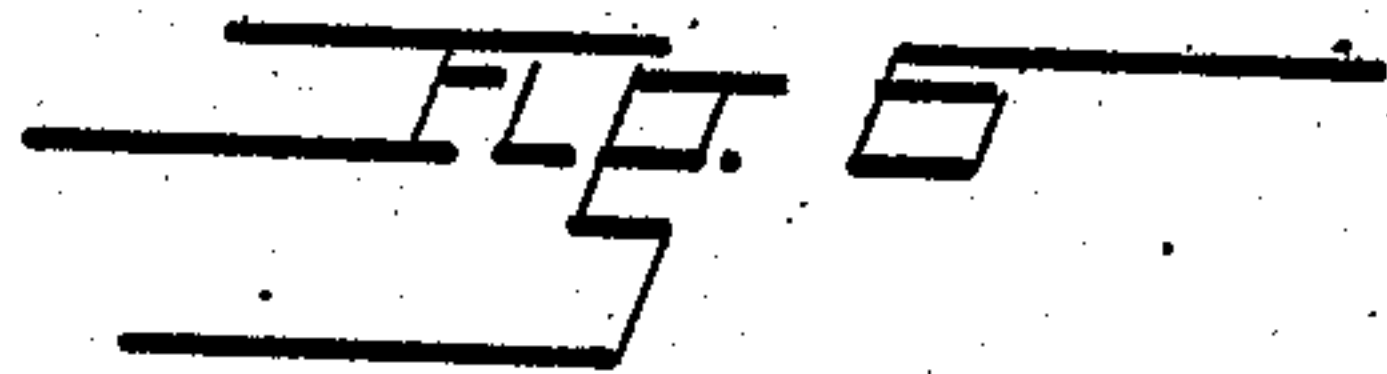
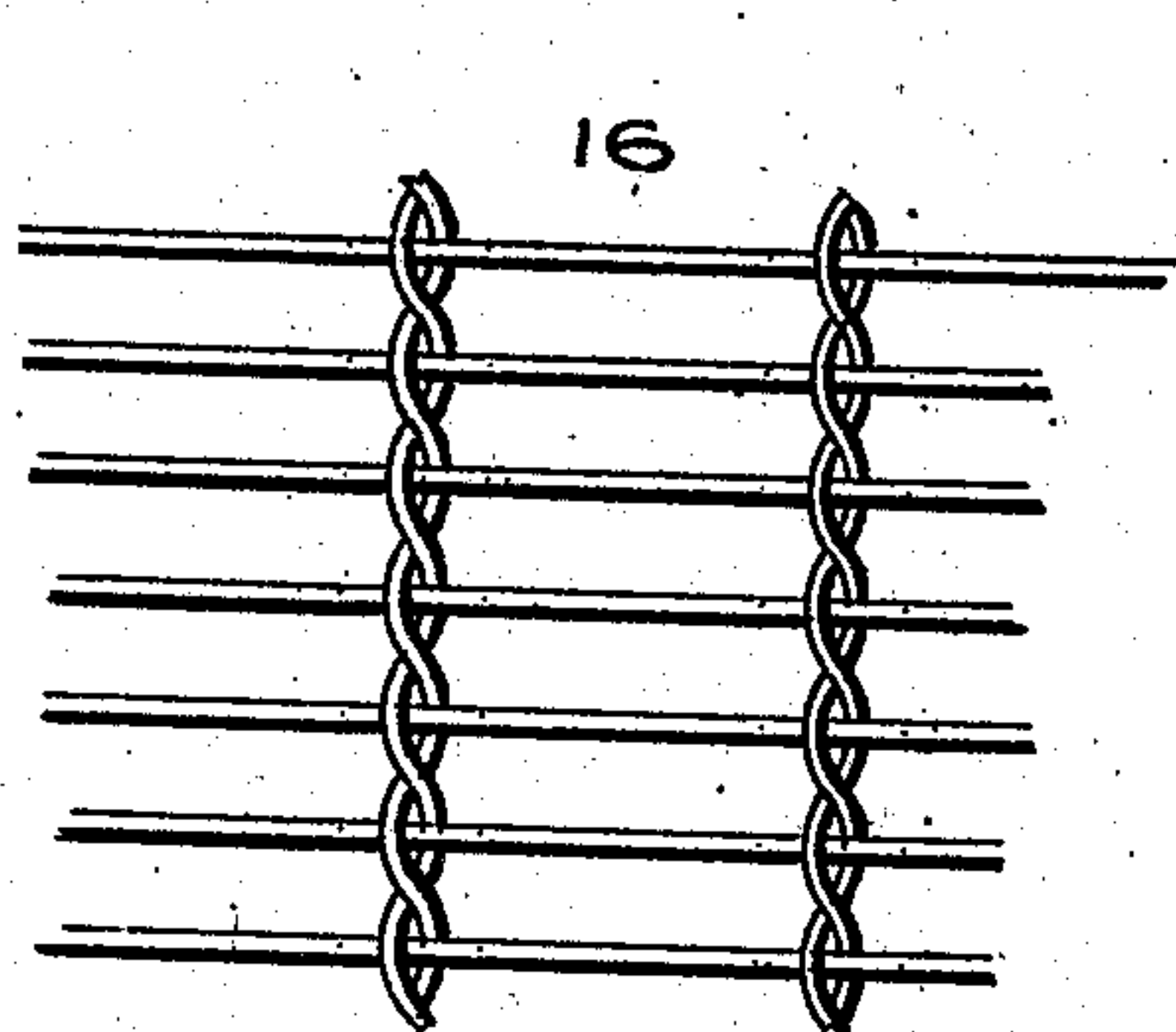
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3 SHEETS-SHEET 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD EDMUND SCHACHNER, OF DENVER, COLORADO.

SOFFIT STRUCTURE FOR STAIRCASES.

No. 894,801.

Specification of Letters Patent.

Patented July 28, 1908.

Original application filed April 14, 1907, Serial No. 379,504. Divided and this application filed October 19, 1907.
Serial No. 398,299.

To all whom it may concern:

Be it known that I, EDWARD EDMUND SCHACHNER, a citizen of the United States of America, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Soffit Structures for Staircases, of which the following is a specification.

My invention relates to new and useful improvements in soffit structures for staircases and the object of the invention is to provide a soffit structure which being composed of a plurality of sections, is detachably supported upon corresponding parts of the stair case, which may be manufactured so as to form a separate article of commerce and which, combining cheapness of construction with great strength and an artistic exterior, will lend to the stair structure a massive and ornamental appearance, while adding to its enduring qualities.

The present application constitutes a division of the application for patent Serial #379,504, filed by me April 14—1907.

In the accompanying drawings in the various views of which like parts are similarly designated Figure 1—represents a fragmentary, sectional elevation of a stair case having my improved soffit structure, Fig. 2—a similar view showing a modified form of the soffit structure, Fig. 3—a fragmentary, transverse section taken through the stair case along a line 3—3, Fig. 1, Fig. 4—a fragmentary section taken along a line 4—4, Fig. 1, looking downwardly (the soffit sections being omitted), Fig. 5—a rear elevation of the completed structure looking in the direction of the arrow from a point "A", Fig. 1, Figs. 6, 7, 8, 9 and 10—views illustrating different forms of wire netting employed to reinforce the treads, risers and soffits comprised in the stair structure, and Figs. 11 and 12—fragmentary views of rods used to the same purpose.

Referring to the drawings, the reference numeral 2 designates the parallel stringers between which the stairs are supported and which are provided upon their inner surfaces with inwardly ranging, stepped flanges 3, the alternate vertical and horizontal parts 6 and 7 of which are arranged in conformity with the stairs 8. The members 6 and 7 of the flanges 3, are at the junction of the lower portion of the vertical parts with the adjacent horizontal parts, offset to form angular

seats 9 adapted to receive the extremities of angle bars 10, which being arranged transversely between the two stringers, afford a firm support for the stairs 8, the ends of which abut the vertical surfaces of the latter. The stringers 2 are furthermore provided with inwardly extending flanges 11, which being disposed longitudinally along their lower edges, form seats for the extremities of transverse, equidistantly arranged T bars 12 which may be secured to the stringers by means of angles 13.

To lend an artistic appearance to the structure the under sides of the flanges 11 and of the T bars 12 are ornamented by moldings which at their points of intersection, are mitered as shown in Fig. 4 of the drawings. The upper surfaces of the flanges 11 and of the wings 12^a of the tee connections, extending in one plane, form a series of supporting frames for the soffit sections 14, transversely separated by the upwardly extending parts 12^c of the T bars.

The sections or panels 14, which collectively constitute the soffit 15, are produced by molding a plastic substance, preferably a mixture of cement and sand in suitable proportions or a composition of plastic and fire-proof, tenacious or other substances, in the form of rectangular slabs the areal dimensions of which equal those of the supporting frames.

To render the molded parts tenacious and durable they are reinforced by the embedding of sheets of expanded metal or wire netting 16, and in case the sections are large, with rods 17 which may be entwined with the netting. The wire netting employed to this purpose may be constructed in any desired manner, preference being given to the forms illustrated in Figs. 6 to 11 inclusive, all of which are formed with protuberant parts which aid in promoting the cohesion of the substances and reinforcing members comprised in the molded soffit. The rods 17 employed in conjunction with the wire netting to reinforce the soffit sections are preferably roughened by twisting as shown in Fig. 12 or by integral circumferential ridges as illustrated in Fig. 11, for the purpose of their cohesion with the surrounding plastic substance.

The, in practice, lower surface of the soffit may be ornamented in various ways so as to present an artistic appearance when the

parts of the structure are assembled, as, for instance, by the embedment of encaustic tiles 18 or of varied colored fragments 19 of glass, marble or other substances which produce a mosaic effect, (see Fig. 5). For cheaper structures these embedded ornamental parts may be omitted and the soffit rendered attractive by the use of variedly colored concrete in molding the sections of which it is composed.

The soffit, thus constructed and arranged, is readily applied and combines in an inexpensive structure all the attributes of a massively constructed stair case, and its sections may be made of standard sizes and kept in stock by dealers in architectural supplies ready to be applied to the casing by simply placing them upon the series of frames formed by the flanges on the stringers and the transverse T-shaped connections.

The soffit of the stair structure may, if so desired, be vaulted as illustrated in Fig. 2 in which case the portions 11^a of the stringer-flanges intermediate the cross bars 12, as well as the thereupon disposed soffit sections 14^a are curved.

Having thus described my invention what I claim is:—

1. A soffit structure for stair cases comprising in combination, parallel stringers

having longitudinally inturned flanges, and a soffit composed of a plurality of consecutively arranged removable sections the ends of which rest upon the said flanges.

2. A soffit structure for stair cases comprising in combination, parallel stringers having longitudinally inturned flanges, transverse, inverted T shaped supports connecting the said flanges and forming therewith a series of consecutively separated frames, and a soffit composed of a plurality of sections removably supported within the said frames by engagement therewith of their marginal portions.

3. A soffit structure for stair cases comprising in combination, parallel stringers having longitudinally inturned flanges, the said flanges being composed of a plurality of consecutive arches, inverted T shaped supports connecting the stringers at the points of intersection of the said arches and a soffit composed of a plurality of vaulted sections their marginal portions engaging the said flanges and the said supports.

In testimony whereof I have affixed my signature in presence of two witnesses.

EDWARD EDMUND SCHACHNER

Witnesses:

G. J. ROLLANDET,
K. M. STUMP.