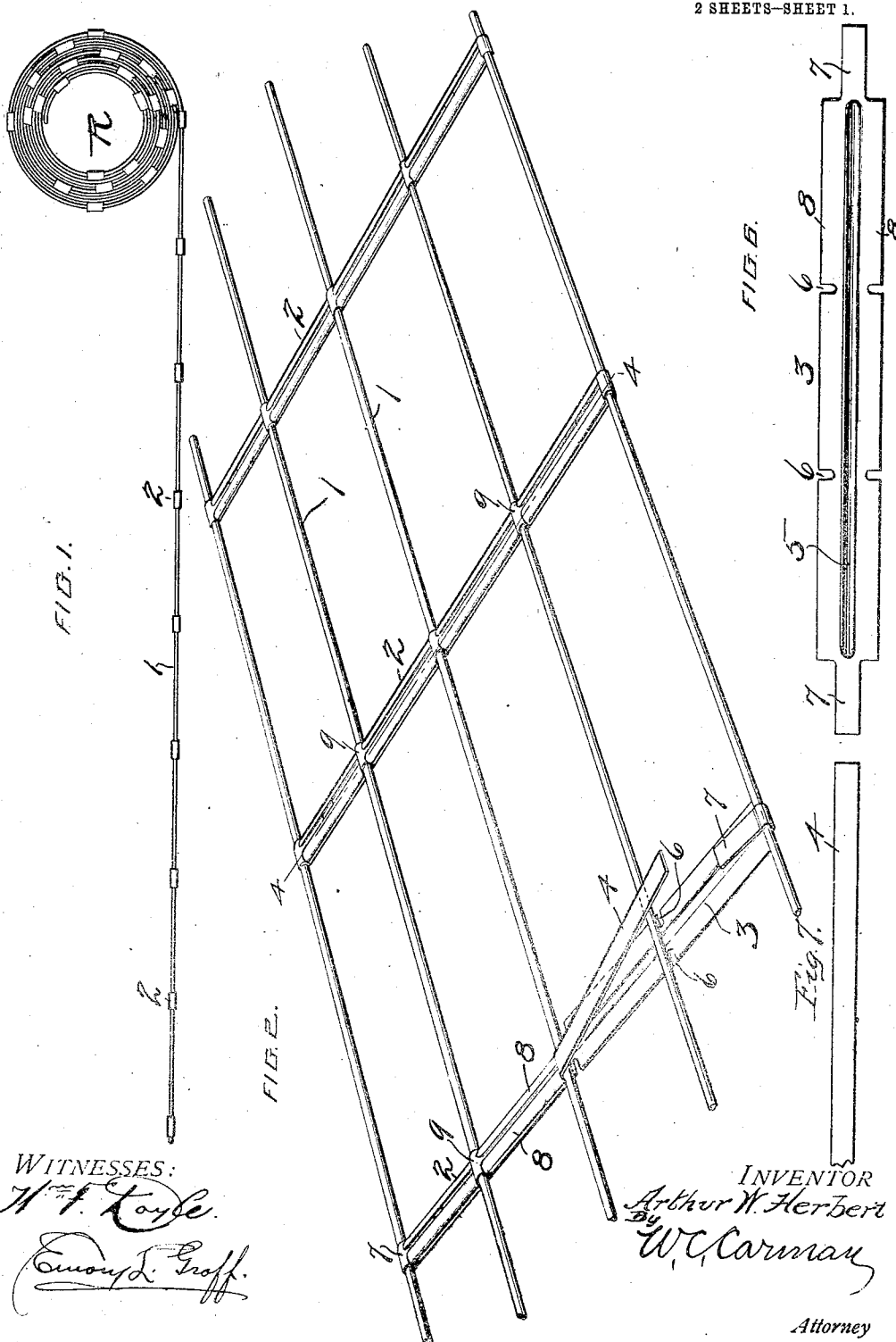


A. W. HERBERT.
 METAL REINFORCEMENT FOR CONCRETE STRUCTURES.
 APPLICATION FILED APR. 15, 1912.

1,046,186.

Patented Dec. 3, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

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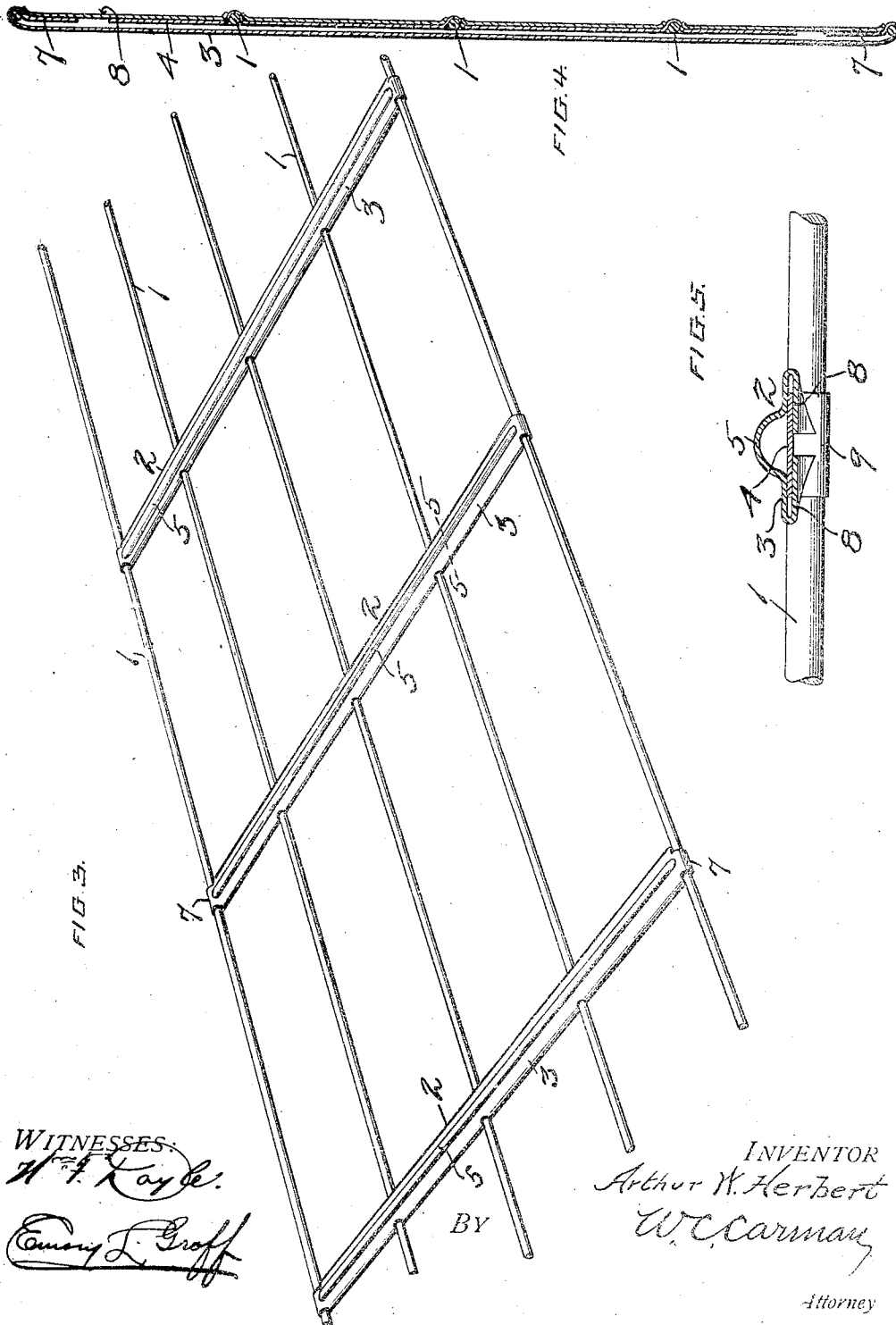
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UNITED STATES PATENT OFFICE.

ARTHUR W. HERBERT, OF YOUNGSTOWN, OHIO, ASSIGNOR TO THE GENERAL FIRE-PROOFING COMPANY, OF YOUNGSTOWN, OHIO, A CORPORATION OF OHIO.

METAL REINFORCEMENT FOR CONCRETE STRUCTURES.

1,046,186.

Specification of Letters Patent.

Patented Dec. 3, 1912.

Application filed April 15, 1912. Serial No. 690,988.

To all whom it may concern:

Be it known that I, ARTHUR W. HERBERT, a citizen of the United States, residing at Youngstown, in the county of Mahoning and State of Ohio, have invented certain new and useful Improvements in Metal Reinforcements for Concrete Structures, of which the following is a specification.

This invention relates to the subject of metal reinforcement for concrete and other cementitious bodies, and has particularly in view a reinforcement of this character that can be manufactured easily and economically, and which can be made up in a form to permit of convenient handling thereof.

To this end, the invention has for its object the construction of metal reinforcement for concrete in such a manner that ordinary wire or wire rods and sheet metal stampings may be utilized in its manufacture, while at the same time producing a structure possessing sufficient strength and rigidity to fulfil ordinary reinforcing requirements.

A further object of the invention is to provide a metal reinforcement made up of the materials mentioned so that the same may be assembled at the factory and rolled up into bundles or coils and carried in such shape to the point of use and there cut off into the lengths or sections desired.

With these and other objects in view which will readily appear to those familiar with the art as the details of the invention are better understood, the same consists in the novel construction, combination and arrangement of parts hereinafter more fully described, illustrated and claimed.

Though susceptible of structural modification without departing from the scope of the invention, a preferred and practical embodiment thereof is shown in the accompanying drawings, in which—

Figure 1 is a general view from the edge, illustrating the bundle or roll form into which the material may be assembled at the factory, and also showing how it may be drawn out from the roll or bundle to be cut into the length or section desired. Fig. 2 is a perspective view of the metal reinforcement, from one side thereof. Fig. 3 is a similar view from the opposite side thereof. Fig. 4 is transverse sectional view, longitudinally of one of the transverse spacer bars on the line 4-4 of Fig. 1. Fig. 5 is an

enlarged detail sectional view crosswise of one of the bars on the line 5-5 of Fig. 3. Figs. 6 and 7 are plan views of the two members of each spacer bar, namely of the stay strip and of the anchor strip.

Like references designate corresponding parts in the several figures of the drawings.

The reinforcement material forming the subject matter of this application primarily comprises a plurality of spaced longitudinal reinforcement rods 1, and a plurality of transverse combined reinforcement and spacer bars 2, which rigidly connect and space apart the rods. This structure when made can be readily assembled in the form of a roll R, as indicated in Fig. 1 of the drawings, which roll of reinforcement material may be carried to the point of use, and the required length or section drawn out, as also indicated in Fig. 1, thus greatly improving the usual methods of handling and transporting metal reinforcement for concrete structures.

The longitudinal reinforcement rods 1 may consist of wire-rods of suitable strength and gage, and arranged and spaced in parallel relation in any desired number according to the width of the material or fabric to be manufactured. The transverse bars 2 are likewise suitably spaced apart in parallel relation, the spacing therebetween being determined by the amount of rigidity which it is desired to give to the material. Each of these bars 2 consists of two members, namely a stay strip 3, and an anchor strip 4, both of which are cut or stamped from sheet metal. The stay strip 3 is preferably formed with a longitudinal groove or off-set producing upon one side thereof a longitudinal reinforcing rib 5, which gives added stiffness and reinforcement to the material. Each stay strip 3 is further provided in opposite edges thereof with paired keeper notches 6, each pair of which notches receive and interlock with one of the rods 1, and the said strip is also provided at its ends with narrowed terminal fastening tongues 7 adapted to be bent over the marginal rods 1 to fasten the strip thereto. At its side edges, each stay strip 3 is provided with the edge securing flanges 8 which are adapted to be bent or folded-in over and upon the longitudinal edge portion of the anchor strip 4, which is superimposed upon one side of the stay strip and

extends over all the rods 1 between those at the margins of the material. The operation of folding-in and clenching the flanges 8 upon the anchor strip 4 not only brings the notches 6 into interlocking engagement with the rods, but also crimps the anchor strip over the rods producing rod-embracing eyes 9 therein. The terminal tongues 7 are also clenching in place by the flanges 8 being bent thereover.

Any suitable machinery and tools may be employed in manufacturing and assembling the material or structure above described.

I claim:

1. A reinforcement material consisting of longitudinally spaced members, and transverse bars connecting the same, said transverse bars each consisting of an anchor strip arranged upon one side of the rods and having an interlocking engagement therewith, and a stay strip arranged upon the opposite

side of the members in parallel relation to the anchor strip, and having its longitudinal edges engaged over the longitudinal edges of the anchor strip.

2. A reinforcement material consisting of longitudinal spaced rods, and a plurality of transverse bars, each of which bars consists of an anchor strip arranged upon one side of the rods, and a stay strip arranged upon the opposite side of the rods, said stay strip having terminal tongues bent over the marginal rods, keeper notches engaging with the other rods, and edge securing flanges bent over its terminal tongues and also over the anchor strip.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

ARTHUR W. HERBERT.

Witnesses:

H. R. GLENN,
H. E. WHITE.