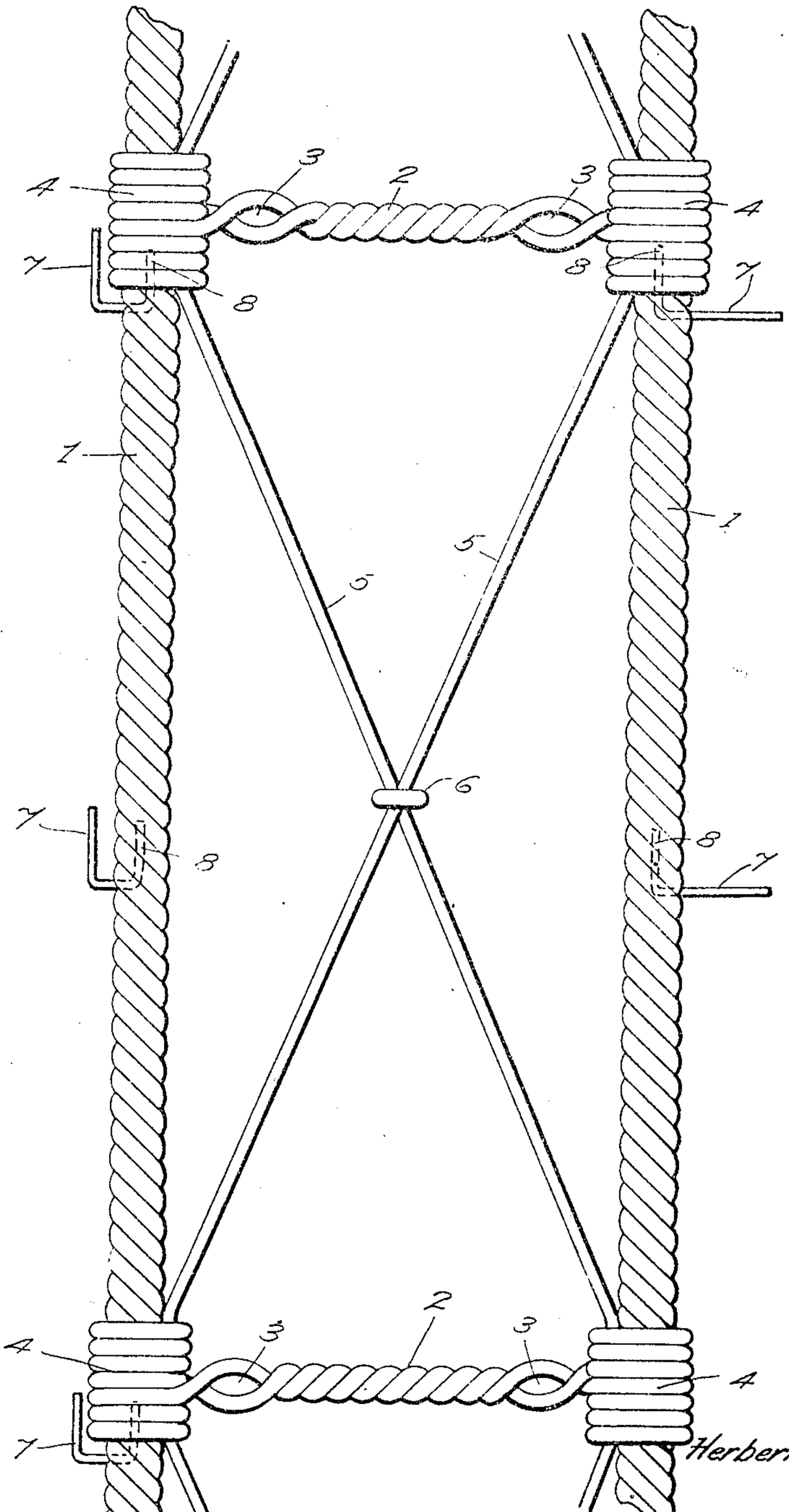
No. 878,221. PATENTED FEB. 4, 1908.

H. C. MATTHEWS.

TRUSS FOR IRON STRUCTURES.

APPLICATION FILED APR. 3, 1907.



Witnesses

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TRUSS FOR IRON STRUCTURES.

No. 878,221. Specification of Letters Patent. Patented Feb. 4, 1908.

Application filed April 3, 1907. Serial No. 366,222.

To all whom it may concern:

Be it known that I, HERBERT C. MATTHEWS, a citizen of the United States of America, residing at Salt Lake City, in the county of Salt Lake and State of Utah, have invented new and useful Improvements in Trusses for Iron Structures, of which the following is a specification.

This invention relates to trusses and studding for fireproof and concrete structures, and one of the principal objects of the same is to provide a truss or stud which shall be of light weight, and of great strength, and which shall also be capable of many uses in metal structures.

Another object of the invention is to provide a truss or stud composed entirely of wire of the required gage, and comprising longitudinal strands twisted together and held the required distance apart by crossed braces and spreaders.

Still another object of the invention is to provide a studding for light iron partitions, and to provide means for attaching metal laths thereto for holding the plaster.

These and other objects may be attained by means of the construction illustrated in the accompanying drawing, in which: the figure of the drawing is a plan view of a short section of a truss or stud made in accordance with my invention.

Referring to the drawing for a more particular description of my invention, the numerals 1 represent the two side strands or members of the truss, said members consisting of three or more strands of wire of the required gage, said strands being closely twisted together to form a rigid bar or member of the required length. At suitable intervals in the length of the members 1, spreaders 2 are provided, said spreaders comprising two strands of wire of the required gage, said strands being twisted together closely in the center, and provided with oppositely disposed loops 3, the terminal ends of said strands being wrapped several times around the members 1, as at 4, and firmly united to said members 1. Cross brace rods 5 which continue from end to end of the members 1, are secured at the points where the spreaders are connected to the members 1 by wrapping the terminal ends of said spreaders around said rods 5 to hold them in connection with the members 1. A suitable ring or loop 6 unites the rods 5 at their point of intersection intermediate the spreaders 2. By means of this construction, a firm rigid truss or stud is provided, which is of comparatively light weight and great strength. Malleable iron hooks 7 are connected at suitable intervals to the members 1 by passing the shanks 8 of said hooks between the twisted strands of the members 1 prior to the twisting operation. The hooks 7 are for the purpose of connecting the metal lath to the stud, said hooks being bent in the required manner to hold the metal lath firmly in place. After the truss or stud has been assembled as described, a thin coating of spelter is applied to the device to prevent corrosion.

From the foregoing it will be obvious that a truss or stud made in accordance with my invention is adapted for many uses in the construction of fireproof buildings, such as hollow partitions, floors, ceilings, walls, roof construction, as a reinforce for concrete beams, columns, chimneys, elevator shafts, reservoirs, arches, side walks, stairs, and many other places.

The truss or stud being of open work, can be readily embedded in the concrete and forms a strong and durable brace. The loops 3 in the spreader provide means for securing lateral braces which may be passed through said loops for binding all the studs or trusses together.

Having thus described the invention, what I claim is:

1. A truss or stud comprising longitudinal members composed of twisted wires, spreaders extending from one member to the other, and consisting of twisted wires, the terminal ends of said wires being wrapped around the longitudinal members, crossed braces extending through the wrapped portions of the spreader, and loops or rings connecting the intersecting portions of the cross braces.

2. A truss or stud for metal structures comprising longitudinal members comprising twisted wire strands, spreaders connecting

said strands, crossed braces connecting said spreaders and longitudinal members, said spreaders having oppositely disposed loops for the purpose described, and malleable metal hooks secured at intervals to the longitudinal members for holding metal laths, substantially as described.

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

HERBERT C. MATTHEWS.

Witnesses:
G. H. BACKMAN,
W. J. BATEMAN.