

No. 745,343.

PATENTED DEC. 1, 1903.

F. M. GARRISON & D. W. BRACKETT.

LADDER.

APPLICATION FILED APR. 13, 1903.

NO MODEL.

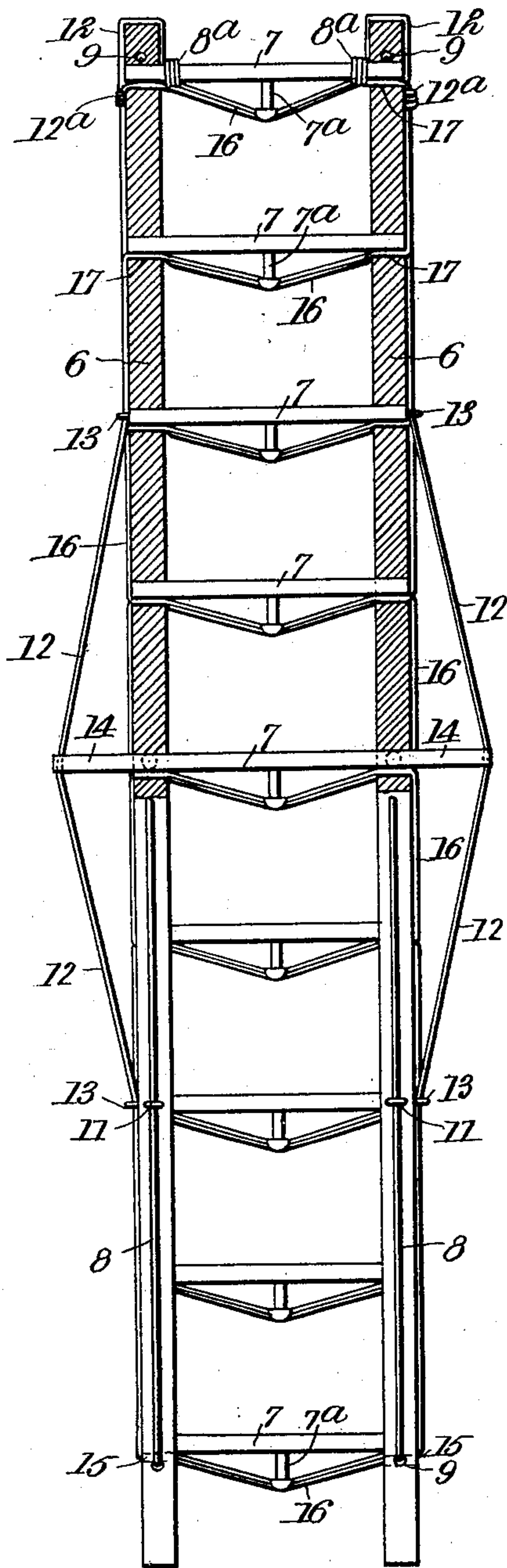


Fig. 1.

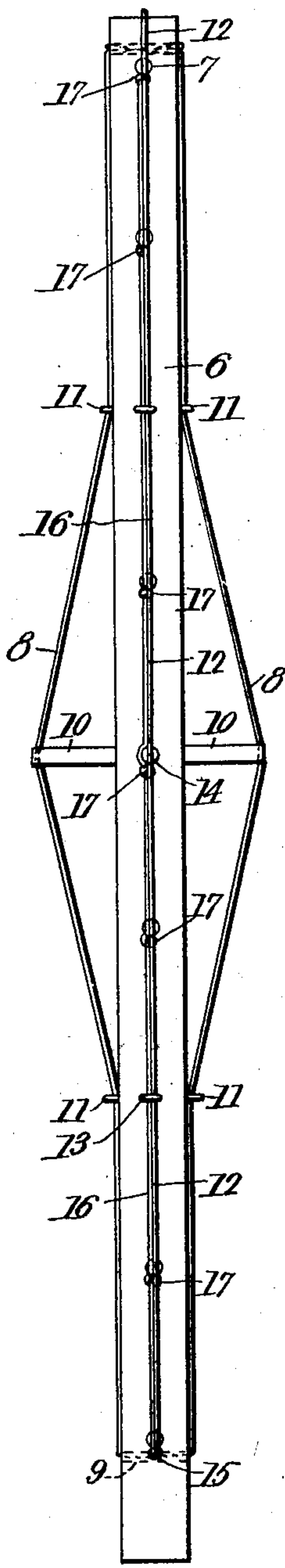


Fig. 2.

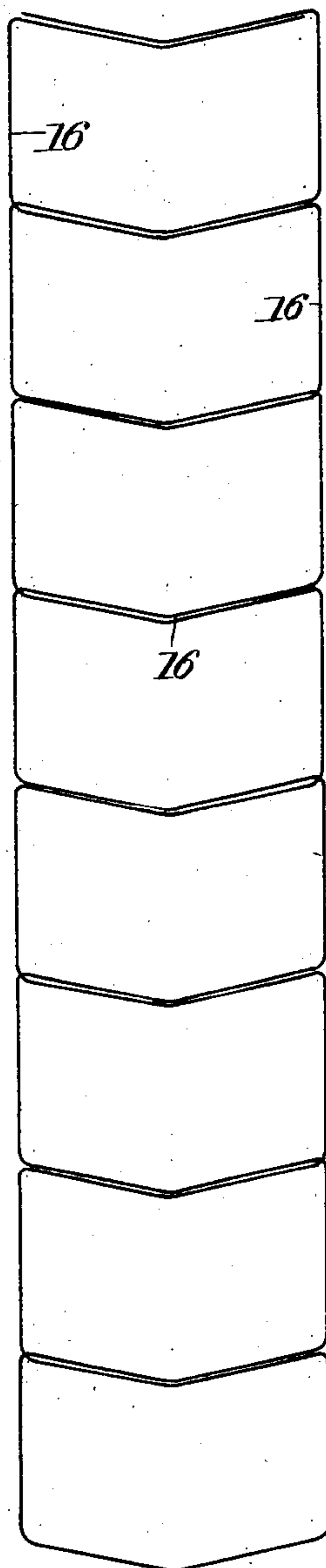


Fig. 3.

Inventors

F. M. Garrison
D. W. Brackett

By

Milo B. Stevens & Co.

Attorneys

Witnesses

C. H. Walker

Geo. E. Tew

UNITED STATES PATENT OFFICE.

FURMAN M. GARRISON AND DAVID W. BRACKETT, OF VINELAND,
NEW JERSEY.

LADDER.

SPECIFICATION forming part of Letters Patent No. 745,343, dated December 1, 1903.

Application filed April 13, 1903. Serial No. 152,371. (No model.)

To all whom it may concern:

Be it known that we, FURMAN M. GARRISON and DAVID W. BRACKETT, citizens of the United States, residing at Vineland, in the county of Cumberland and State of New Jersey, have invented certain new and useful Improvements in Ladders; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates particularly to trussed ladders, and has for its object to provide improved wire trusses for the stiles and rounds thereof. The wires of which the trusses are formed are threaded or extended through the stiles and under the rounds and serve to support the rounds and also to bind the stiles together.

In the accompanying drawings, Figure 1 is a front elevation of the ladder, partly in section. Fig. 2 is a side elevation thereof, and Fig. 3 is a diagrammatic illustration of the course of the wire which forms the trusses for the rounds.

Referring specifically to the drawings, 6 indicates the stiles of the ladder, and 7 the rounds thereof, which do not differ materially from the ordinary construction.

Front and rear trusses for the stiles are indicated at 8, formed of a single wire for each stile. Each wire extends through holes 9, extending from front to back through the stiles, at the top and bottom thereof, and over struts 10 at the middle of the ladder and under staples 11 between the struts and the ends of the ladder. As said before, the truss for each stile is formed of a single piece of wire bent through the holes 9 and fastened, preferably at the top, by winding around the round, as at 8^a. These trusses give the direct, or front and rear, support to the stiles.

Side trusses for the stiles are indicated at 12, comprising a single piece of wire which is fastened and started at the top of one stile, as at 12^a, continued under staples 13 and over a strut 14 on the outside of said stile, thence through a transverse hole 15 and across the ladder under the strut 7^a of the lower round, and thence through a similar opening 15 in the other stile and up the outside thereof in a similar manner to the top. This wire forms lateral trusses for the ladder.

The rounds are trussed by a wire 16, which is crossed or looped from one side of the ladder to the other in the following manner: One end of the wire is attached to the top round at the coil 8^a, above referred to, and extends thence under the strut 7^a of the top round, through a hole 17 at the other end of the round, thence down the side of the stile to the next round, thence through the hole 17 and under the strut of the second round, thence through the hole 17 at the other end of the said round, thence down the side of the other stile, and thence back and forth in similar manner under the successive rounds to the bottom round, whence it is threaded upwardly through the same holes and under the same rounds, but in opposite directions, until the top of the other stile is reached, where the end of the wire is fastened, as at 8^a. The effect of this construction is to form loops the strands of which cross each other under each round, so that both strands form a truss for each round and also form binding loops which hold the stiles together. The diagrammatic illustration in Fig. 3 clearly indicates the course of the wires. The construction permits the use of light flexible wire and the formation of a light and strong ladder therefrom.

What we claim as new, and desire to secure by Letters Patent, is—

1. A ladder having a continuous truss-wire looped through the stiles and under the successive rounds, and struts between the rounds and the wire.

2. A truss for a ladder, comprising a continuous wire looped through the stiles and under the successive rounds, forming a succession of loops which bind the stiles together.
- 5 3. A trussed ladder comprising stiles, rounds, a truss-wire crossed from one stile to the other under successive rounds, and struts between the rounds and the wire.

In testimony whereof we affix our signatures in presence of two witnesses.

FURMAN M. GARRISON.
DAVID W. BRACKETT.

Witnesses:

MARTIN BOWERS,
JOHN MCCOY.