No. 673,034. Patented Apr. 30, 1901.

R. B. SIGAFOOS.

TRUSSED LADDER.

(Application filed Aug. 7, 1900.)

(No Model.)

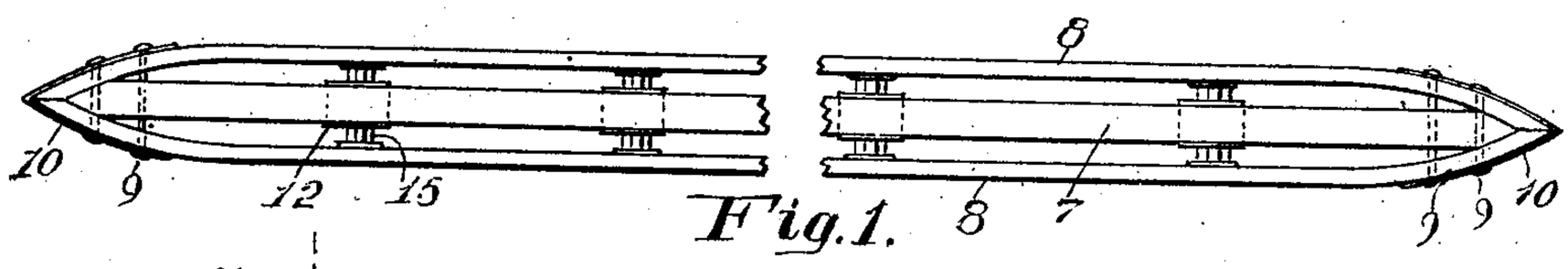


Fig. 1.

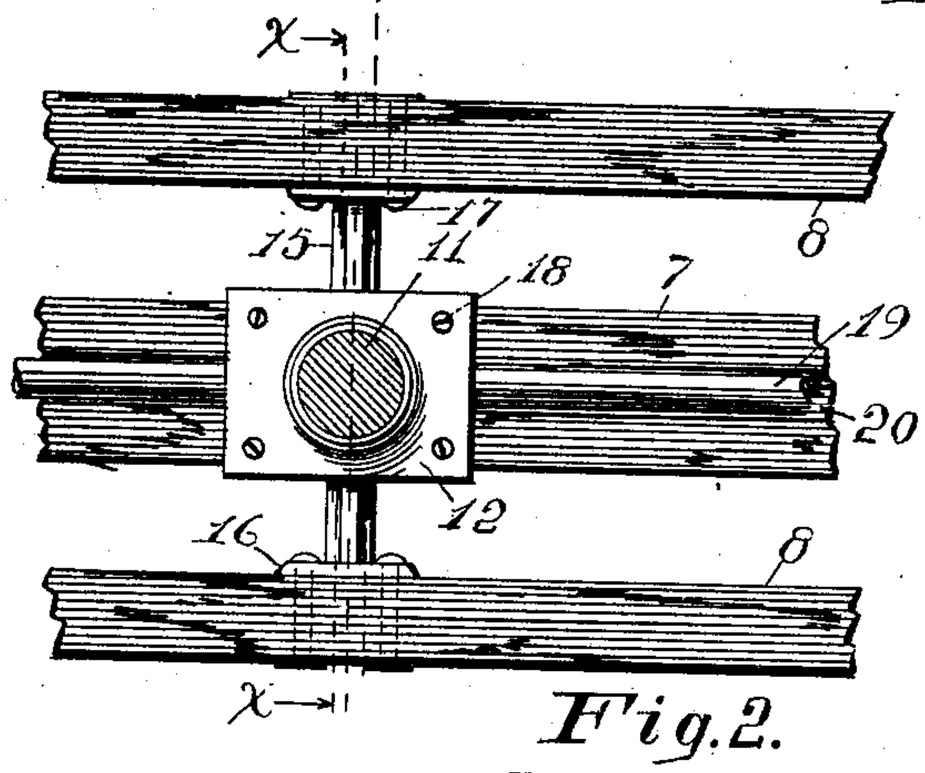


Fig. 2.

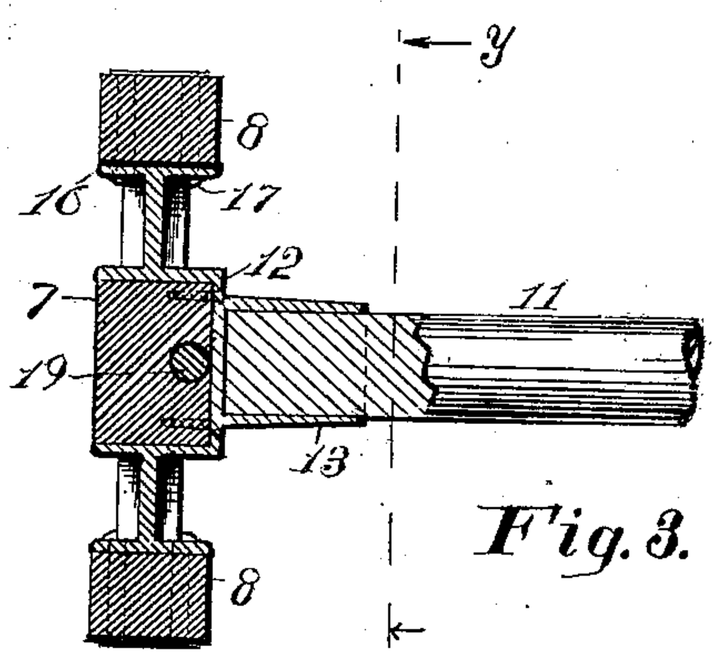


Fig. 3.

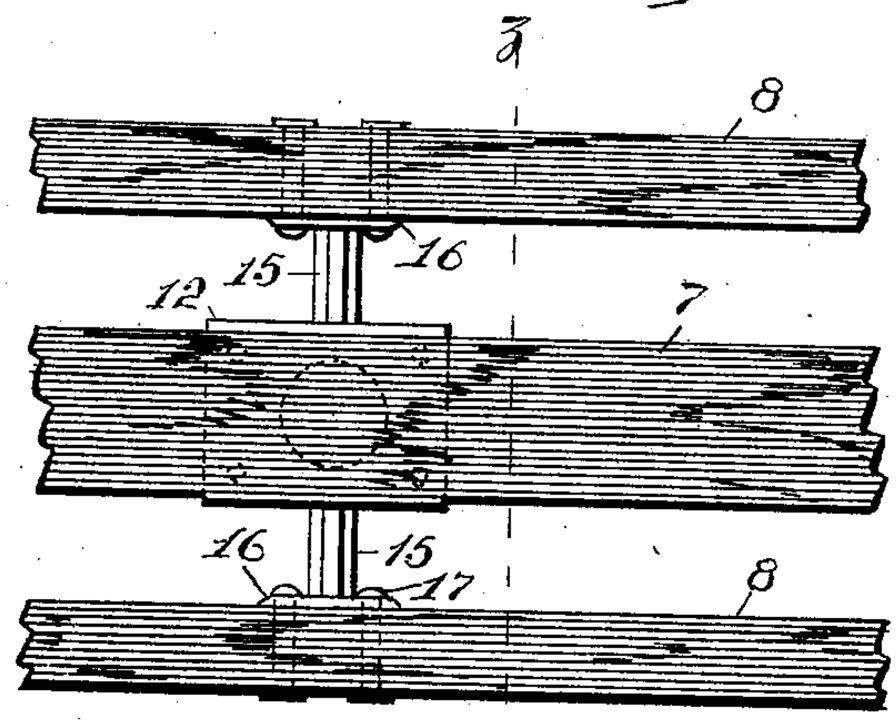


Fig. 4.

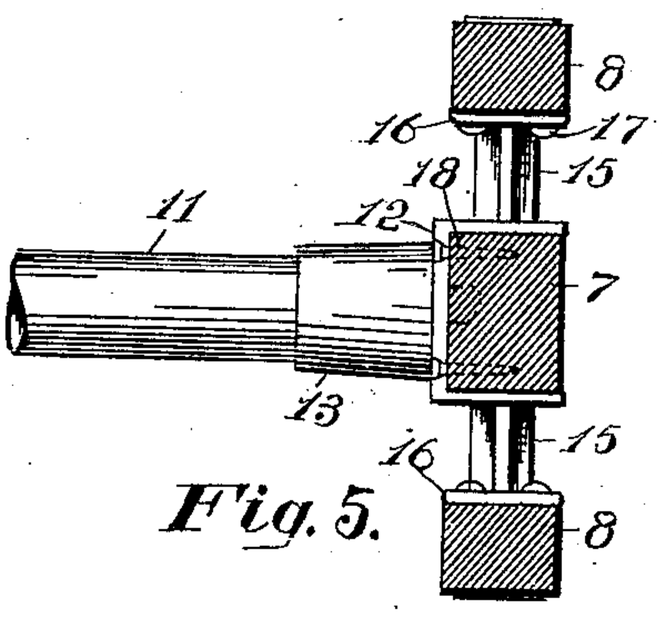
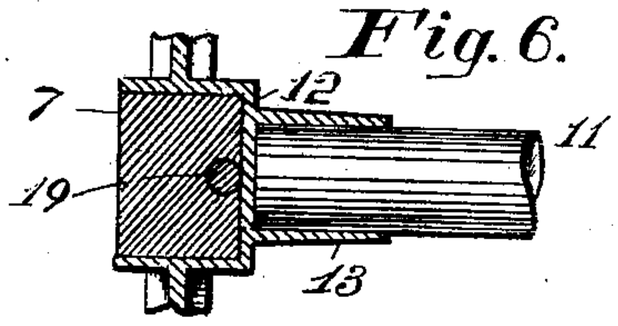


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

RUSSEL B. SIGAFOOS, OF RACINE, WISCONSIN.

TRUSSED LADDER.

SPECIFICATION forming part of Letters Patent No. 673,034, dated April 30, 1901.

Application filed August 7, 1900. Serial No. 26,132. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL BIGELOW SIGAFOOS, a citizen of the United States, and a resident of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Trussed Ladders, of which the following is a specification.

The object of the present invention is to construct a trussed ladder so arranged that either end can be used as the foot and can be placed with either side up, so that the ladder is in perfect form and position in any manner in which it may be raised.

It consists, essentially, of a main center strip and two outer parallel strips, having at each round a suitable casting which supports the center strip and also receives the end of the round, and from this casting are laterally-projecting legs with seats to which the side bars are attached.

It also provides a reinforcing or safety rod through the side of each center bar to provide against accident in case the ladder should break, all of which will now be set forth in detail.

In the accompanying drawings, Figure 1 is a side view of a portion of my improved trussed ladder. Fig. 2 is a view of the inner face of the side bars, the round being in section on line *y* of Fig. 3; Fig. 3, a cross-section of the side bars through line *x* of Fig. 2; Fig. 4, a view of the outer surface of the bars; Fig. 5, a cross-section of the side bars through line *z* of Fig. 4; and Fig. 6, a cross-section of the middle portion of the casting, showing modified form of attaching the round.

The ladder is constructed of three bars on each side, the middle bar 7 being somewhat wider than the outer bars 8, but substantially the same thickness. The two outer bars 8 are bent toward each other at their ends and secured to each other and to the center bar by means of cross-bolts 9, said bolts also passing through a metallic reinforcing-piece 10, made to conform to the shape of the pointed end of the ladder, the whole thus constituting a rigid structure.

In order to complete the truss-like structure, the rounds 11 are suitably secured in a tubular socket or thimble 13, formed on the inner side of the casting 12. The central body of the casting 12 is so formed as to receive the middle bar 7 of the ladder, and extending out from each side of this casting is a leg 15, at the extremity of which is a flat seat 16, to which the side bars are attached by screws or rivets 17. The middle bar 7 is held in position, first, by means of screws or rivets 18, which pass in from the inside of the central plate, and, secondly, by a rod 19, which rests within a groove 20 on the inside surface of the middle bar, the ends of said rod being secured to the ends of the ladder in any suitable manner. The object of this rod is that it serves to strengthen the ladder. As the bars 7 8 are of wood from end to end, it is obvious that should one of the bars suddenly break by an undue strain there is nothing to prevent the ladder from being ruptured, and thus cause damage at a critical moment. To obviate this, I place in this rod, which serves as a protection against complete rupture in case of an accident, as the parts would at least be held together by the metal rod 19.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A trussed ladder comprising a main central bar, and two outer parallel bars, to constitute one side of a ladder, said outer bars on each side being united together at their ends and to the central bar, in combination with a casting at each round having a socket for the round, which projects inwardly from the casting, and a cavity on the outer side of the casting to receive the central bar, and two laterally-projecting legs having seats at the ends for securing the side bars thereto, substantially as set forth.

2. A trussed ladder, each side of which comprises three parallel bars united together at the ends, and suitable connecting-castings at each round, the middle bar having on its inner side a groove extending from end to end, and a metal rod within said groove suitably secured at its ends to the ends of the ladder, substantially as shown.

3. A trussed ladder, each side of which comprises three parallel bars united together at the ends, in combination with castings at each

round to receive the round, and suitable depressions in each casting to receive the middle bar, each casting having lateral legs to which the side bars are attached, a groove in the inner face of the middle bar, and a metal rod therein, substantially as herein shown and described.

Signed at Racine, in the county of Racine and State of Wisconsin, this 21st day of July, 1900.

RUSSEL B. SIGAFOOS.

Witnesses:

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C. D. VAREL.