

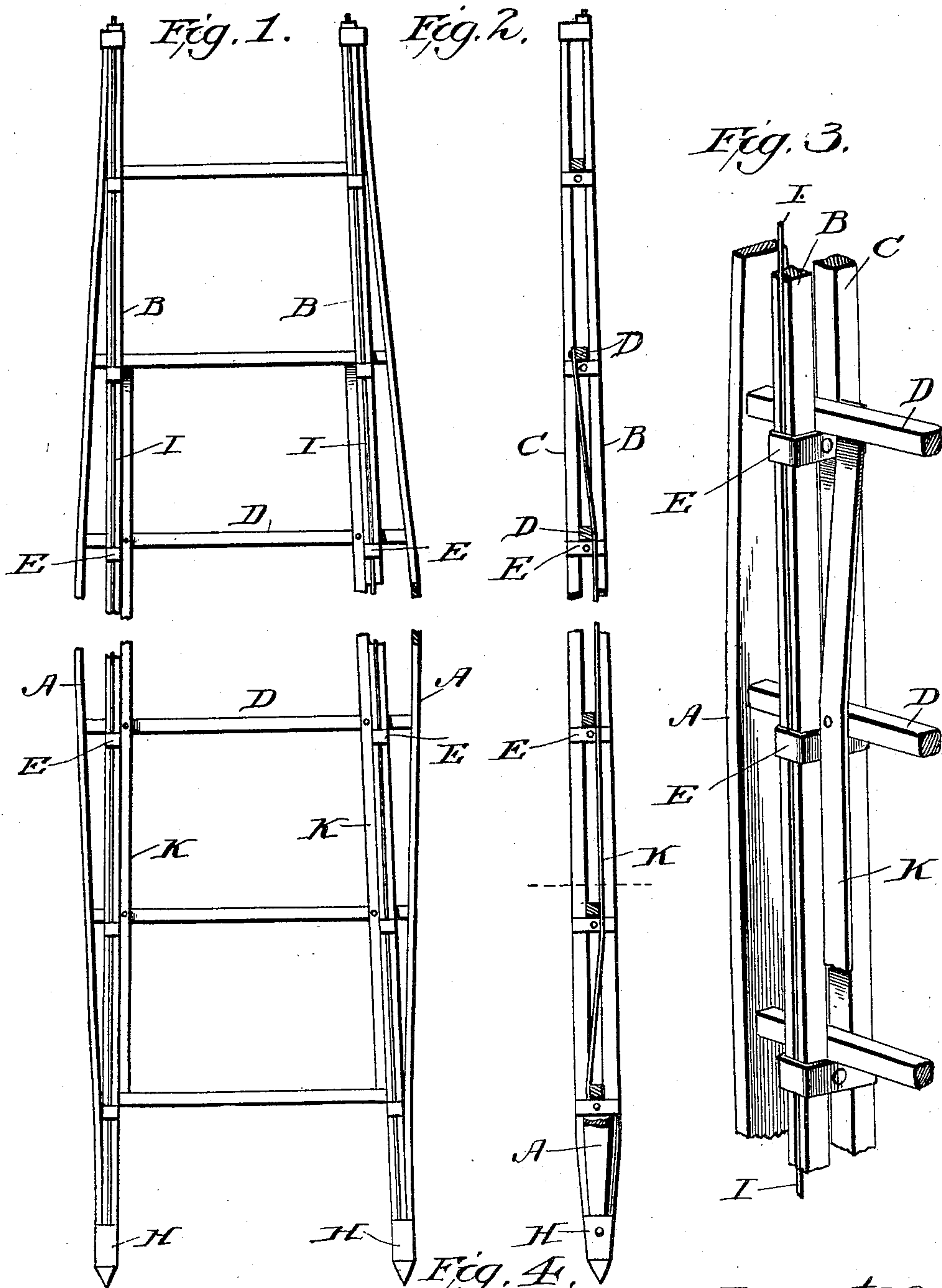
No. 886,514.

PATENTED MAY 5, 1908.

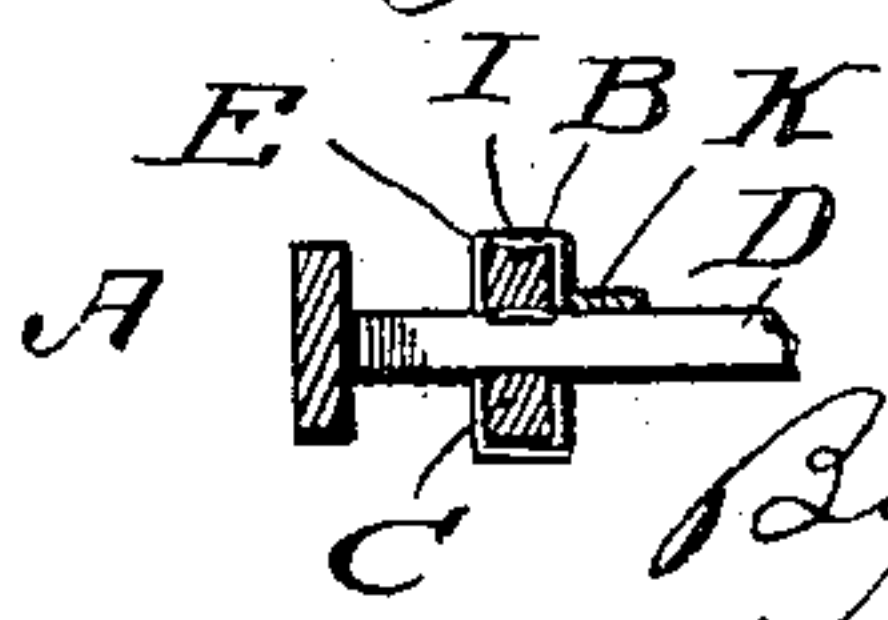
R. R. JONES.

LADDER.

APPLICATION FILED DEC. 9, 1907.



Witnesses:  
*Wm. L. Spedden.*  
*A. L. Stough.*



Inventor:  
*R. R. Jones,*  
By *Franklin H. Hough*  
his attorney



# UNITED STATES PATENT OFFICE.

REUBEN REYNOLDS JONES, OF SPRAGUE, WASHINGTON.

## LADDER.

No. 886,514.

Specification of Letters Patent.

Patented May 5, 1908.

Application filed December 9, 1907. Serial No. 405,807.

*To all whom it may concern:*

Be it known that I, REUBEN REYNOLDS JONES, a citizen of the United States, residing at Sprague, in the county of Lincoln and State of Washington, have invented certain new and useful Improvements in Ladders; and I 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 letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in ladders and the object in view is to produce a simple and efficient device of this nature comprising a light frame reinforced by suitable braces and so constructed that it will not be necessary to weaken the sides by perforating the same for the reception of the rounds.

The invention comprises various details of construction and combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claims.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a front elevation of a section of a ladder embodying the features of my invention. Fig. 2 is an edge view of the construction shown in Fig. 1, parts being shown in section, and Figs. 3 and 4 are detail views.

Reference now being had to the details of the drawings by letter, B and C designate two strips of wood extending the entire length of the ladder, and A designates truss braces which are made preferably of wood which are fastened to the sides of the ladder and their ends fastened to the ends of said strips B and C, thereby securely bracing the ladder against lateral movements.

D designates the rounds which are positioned with their ends between the two sets of strips B and C, and E designates metal bands which are passed about the strips B and C and are adapted to clamp the two strips B and C against the various rounds interposed between the ladder, whereby the rounds may be securely held in place without the necessity of making apertures in the strips as is commonly done in ladders and which has a tendency to weaken and impair

the strength of the same. At the foot of the strips B and C are shoes H which are fastened in any suitable manner thereto and are preferably pointed in order to prevent the ladder from slipping. I—I designate rods running full length of the ladder and fastened to the ends of the ladder by means of burs which are mounted upon the threaded ends of the rod. Said rods lie adjacent to the inner edges of the strips B and are bound and held against the strips B by said metallic bands E. In order to further reinforce and strengthen the ladder, straps of iron K are fastened to the strips B and C beginning preferably near the lower round and fastened to the successive rounds above the same for any suitable distance. It is my purpose in ladders of certain length to run the reinforcing bands K higher up upon the ladder than would be the case with ladders of shorter length.

By the provision of a ladder as shown and described, it will be observed that a construction is afforded which will withstand unusual strains and will be light and easily handled. By reason of the rounds being fastened to the side strips in the manner shown, not necessitating the formation of any apertures in the strips for the reception of the rounds, the strength of the side strips will not be impaired. By reason of the rods which are fastened to one of the longitudinal side strips, the burs upon the threaded ends of the rods may be tightened and cause the parts to be held securely in place. Owing to the truss braces upon the sides, the ladder is strengthened against lateral strains.

What I claim is:—

1. A ladder comprising longitudinal strips, rounds intermediate said strips, clamping plates designed to engage said strips and hold the same frictionally against said rounds, the ends of the rounds extending beyond the outer faces of said strips, truss pieces fastened to the projecting ends of said rounds, the outer face of one of said strips being grooved, a rod mounted in said groove, caps fitted to the ends of the strips and to said truss pieces and through which caps the rod passes, and nuts mounted upon the threaded ends of said rods, as set forth.

2. A ladder comprising longitudinal strips, rounds intermediate said strips, clamping plates designed to engage said strips and hold the same frictionally against said rounds, the

ends of the rounds extending beyond the outer faces of said strips, truss pieces fastened to the projecting ends of said rounds, the outer face of one of said strips being grooved, a rod mounted in said groove, caps fitted to the ends of the strips and to said truss pieces and through which caps the rod passes, nuts mounted upon the threaded

ends of said rods, and a bar fixed to said rounds inside said strips, as set forth. 10

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

REUBEN REYNOLDS JONES.

Witnesses:

R. L. PFAFF,

T. E. DAMRELL.