(No Model.)

C. A. ROOT.

LADDER.

No. 297,088. Patented Apr. 15, 1884.

Fig. 1.

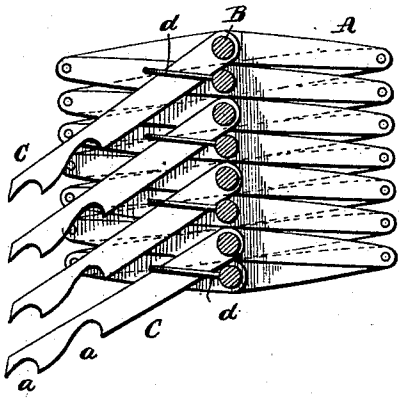
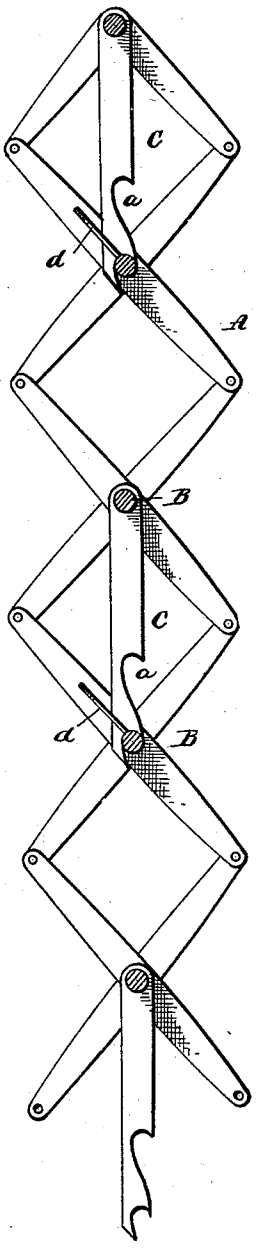


Fig. 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

CORYDON A. ROOT, OF ANDOVER, OHIO, ASSIGNOR OF ONE-HALF TO JAMES L. APPLEGATE, OF SAME PLACE.

LADDER.

SPECIFICATION forming part of Letters Patent No. 297,088, dated April 15, 1884.

Application filed February 18, 1884. (No model.)

To all whom it may concern:

Be it known that I, CORYDON A. ROOT, of Andover, in the county of Ashtabula, and in the State of Ohio, have invented certain new and useful Improvements in Ladders; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates to ladders; and the object I have in view is to make one which can readily be folded together, and as readily extended and automatically caught and held in position, as will be hereinafter more particularly set forth.

In the accompanying drawings, making part of this specification, Figure 1 represents the ladder folded to its smallest compass, while Fig. 2 represents one section of it extended and caught to hold it in such position.

In the figures, A represents the ordinary lazy-tongs. Two like sections of same are used and connected together by the rounds B B, which serve as steps for the ladder which is thus formed. The ends of the rounds B serve as pivots to allow the two sections to be folded together.

To each alternate round B is connected a latch-bar, C, which has near its end one or more hooked slots or openings, *a a*, adapted to catch and hold upon the next round. The free ends of these bars are kept in place by means of metallic loops *d d*, secured, as seen, to the inner sides of the sections of the lazy-tongs. These loops allow the free ends of the bars C sufficient play to drop in and out of connection with the rounds B. These loops, by holding the bars closely to the sides of the ladder, prevent their becoming loose and wabbling, and also obviate danger of breaking the bars by anything coming in contact with them, as is evident.

In turning the lazy-tongs upon one side and extending the two sections, the bars C C will, by gravity, fall and catch and engage with the rounds B B and keep the sections extended, thus forming a ladder. By turning the ladder over and slightly pressing the two sections of the lazy-tongs together, the latch-bars C will drop out of connection with the rounds, and thus enable the ladder to be folded, so that it will occupy but little space longitudinally, and can be packed away in any convenient place for ready use.

The ladder may be used "upside down," when the operation above described will be reversed. By gravity the bars fall as far as the loops will allow as the ladder is extended, and when it is turned over they will fall on the rounds, the notches engaging with the same and supporting them, as will be seen.

I am fully aware that lazy-tongs and notched braces have been used in ladders, and are therefore old. These I do not broadly claim; but

What I do claim is—

The improvement in ladders consisting of the combination, with two lazy-tongs forming the sides of the same, the rounds at each intersection of the lazy-tongs, and the notched braces pivoted to the ends of the alternate rounds, of the metallic loops or guides secured to the lazy-tongs, and adapted to restrict the play of the bars or braces, all the parts being arranged to operate substantially as and for the purpose described.

In testimony whereof I affix my signature, in presence of two witnesses, this 21st day of January, 1884.

CORYDON A. ROOT.

Witnesses:
ALVIN C. WHITE,
E. JAY PINNEY.