(No Model.)

S. H. HARRINGTON.

LADDER.

No. 306,607. Patented Oct. 14, 1884.

Fig. 1.

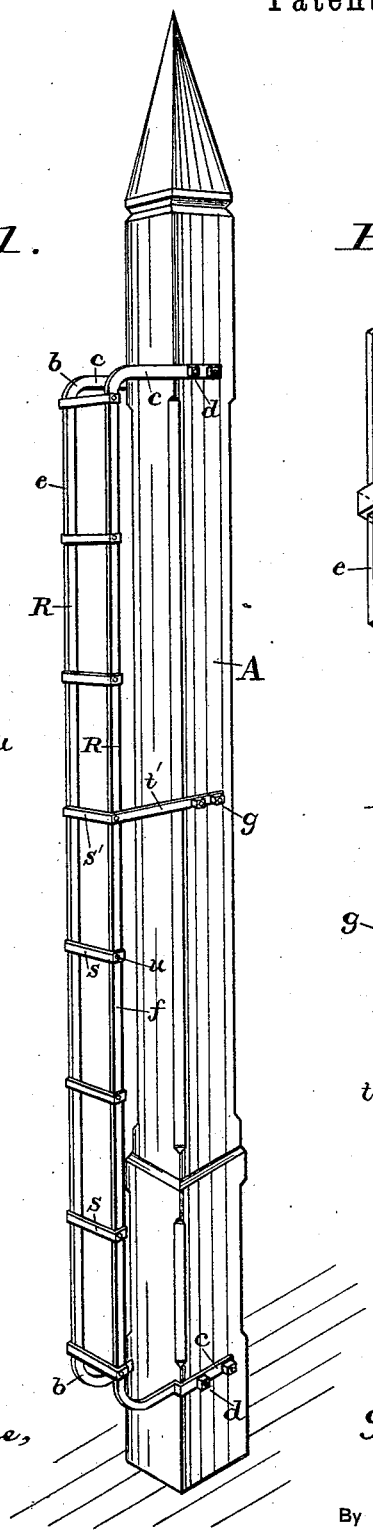


Fig. 2.

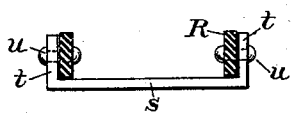


Fig. 3.

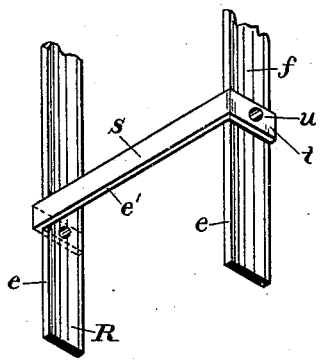
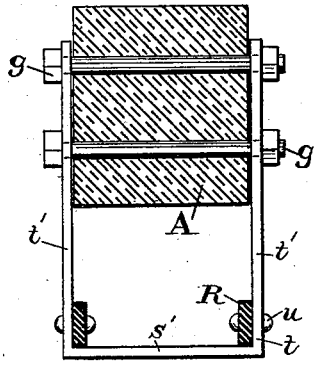


Fig. 4.



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UNITED STATES PATENT OFFICE.

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LADDER.

SPECIFICATION forming part of Letters Patent No. 306,607, dated October 14, 1884.

Application filed September 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. HARRINGTON, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented certain new and useful Improvements in Ladders, of which the following is a specification.

The object of my invention is to provide a ladder for stationary or fixed positions.

The construction of the ladder will first be described, and then the invention will be designated in the claims.

In the drawings hereto annexed, Figure 1 is a view of the ladder. Fig. 2 is a cross-section of the iron ladder. Fig. 3 is a view of a portion of the ladder looking up at the lower edge of the rung. Fig. 4 is a cross-section of ladder and supporting-post, showing the attaching-arms.

The letter A designates an upright post, which may be planted in the ground or supported in any desired manner.

The ladder consists of two upright iron bars, R, whose ends *b* are curved so as to bring each extremity *c* which is beyond the curve to a horizontal position. The said extremities are secured to the post by bolts *d*. Each rung *s* consists of a wrought-iron bar having its ends *t* bent at a right angle. (See Fig. 2.) The rungs cross the front edge, *e*, of each upright bar, and the right-angled ends *t* have position on the outer side, *f*, of the upright bars, where they are secured by a single bolt or rivet, *u*. By this construction, when the weight of a person is on a rung, the lower edge, *e'*, of the rung will bind against the front edge, *e*, of the upright bars, and thereby, although one rivet only is used in each right-angled end, the rung cannot tilt down on the pivot which is formed by the rivet *u*.

The ladder projects from one side of the post A, and is parallel therewith. Several rungs, *s'*, have an attaching-arm, *t'*, extended from the right-angled end *t*, and these arms are in contact with the side of the post A, and are secured thereto by bolts *g*. The holes for these bolts and the holes in the extremities of the upright bars through which the bolts *d* pass should all be so located as to admit of attaching the ladder to either of opposite sides of the post, in order that if it should become desirable to change the ladder from one side of the post to the other it may be readily done.

As here constructed, the iron ladder has the least number of rivets and bolts, and yet is perfectly rigid and strong in all its parts.

This ladder is suitable for any fixed or stationary position, such as for fire-escapes and the supporting-posts of electric and other street lamps.

Having described my invention, I claim and desire to secure by Letters Patent of the United States—

1. A ladder having upright bars R and metal rungs *s*, with their ends *t* bent at a right angle, the said rungs crossing the front edge of each bar and the bent rung ends secured on the outer side of the bars by a single bolt or rivet, *u*, as set forth.

2. A ladder consisting of a post, A, upright bars R, having their ends curved and the extremities beyond the said curve secured to the post, and provided with rungs attached to the bars, as set forth.

3. The combination of a supporting-post, A, a ladder having upright bars R parallel with the post and projecting from one side thereof, and ladder-rungs *s'*, having ends bent at a right angle, and an attaching-arm, *t'*, extended from each said right angle to the post and secured thereto, as set forth.

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

SAMUEL H. HARRINGTON.

Witnesses:
E. A. DAWSON,
C. C. CORNER.