No. 772,379. PATENTED OCT. 18, 1904.

O. A. SARVELA.

FIRE LADDER.

APPLICATION FILED DEC. 31, 1903.

NO MODEL.

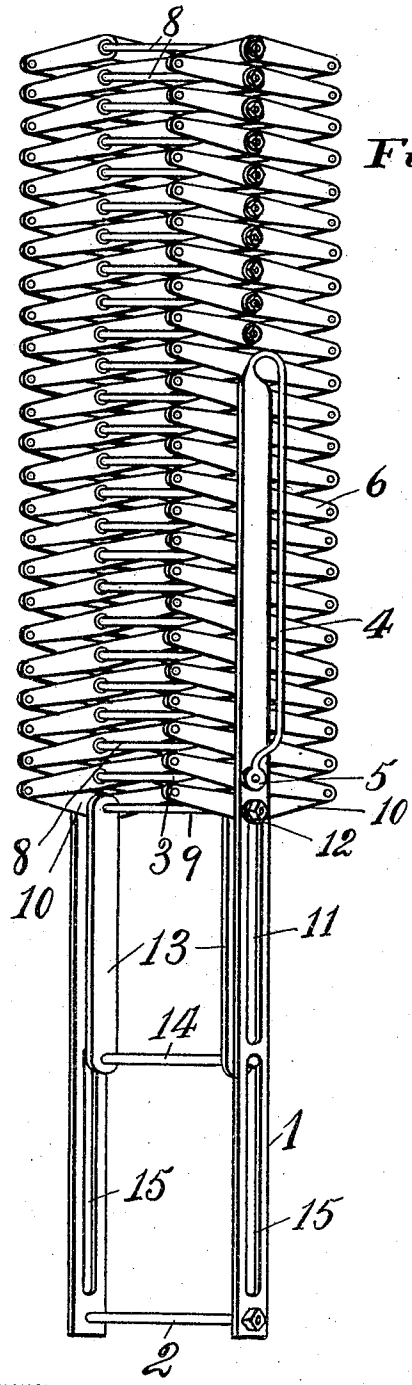
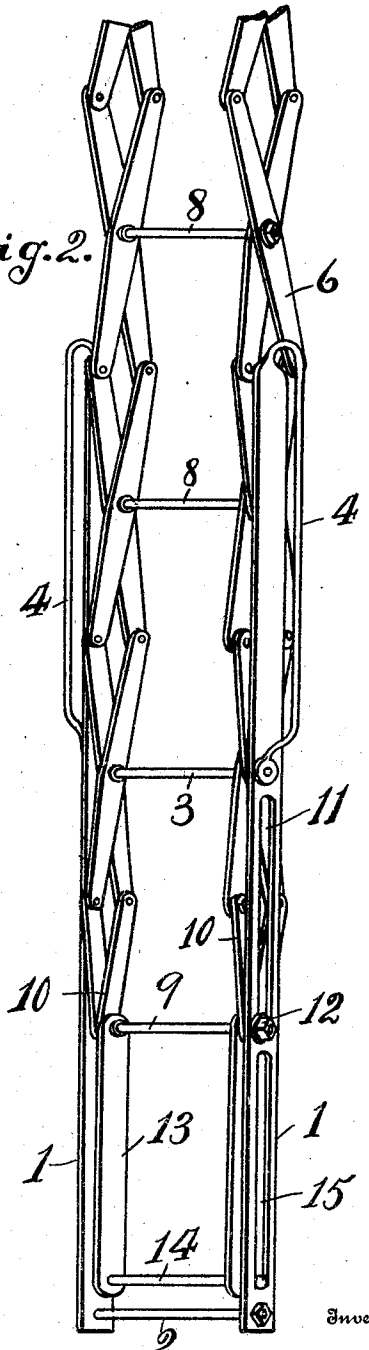


Fig. 1.

Fig. 2.



Witnesses

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No. 772,379. Patented October 18, 1904.

UNITED STATES PATENT OFFICE.

OSKAR ALEKSANDER SARVELA, OF ROCKLEY, CALIFORNIA.

FIRE-LADDER.

SPECIFICATION forming part of Letters Patent No. 772,379, dated October 18, 1904.

Application filed December 31, 1903. Serial No. 187,172. (No model.)

To all whom it may concern:

Be it known that I, OSKAR ALEKSANDER SARVELA, a citizen of the United States, residing at Rockley, in the county of Placer and State of California, have invented certain new and useful Improvements in Fire-Ladders, of which the following is a specification.

My invention relates to improvements in fire-ladders, the object of my invention being to provide a ladder which will be compact and convenient in form and which can be rapidly extended to a great height when desired.

My invention therefore resides in the novel construction, combination, and arrangement of parts for the above ends hereinafter fully specified, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing the ladder closed. Fig. 2 is a similar view showing the lower portion of the ladder when it is extended.

Referring to the drawings, 1 represents side bars or frames joined at the bottom by a bar 2 and at about the middle by a bar 3. Said side frames at their upper ends are bent round to form handles 4, which are secured, as shown at 5, upon the ends of the bar 3.

Each side of the ladder consists of lazy-tongs 6, the central pivots 7 thereof being connected by bars 8, which form the rungs of the ladder when it is extended. The bar 3 also forms one of said rungs—namely, the second from the bottom. The lowest rung or bar 9 after passing through the ends of the lowermost members 10 of the lazy-tongs also passes through slots 11, formed in the side frames, carrying on its ends the nuts 12. Plates 13 have their upper ends connected to said lowest rung 9 within the lazy-tongs, the lower ends of said plates being joined by a foot-bar 14, the ends of which also slide in lower slots 15, formed in the side frames.

In use the fireman or operator takes hold of the handles of the side frames and presses with one or both feet upon the foot-bar 14, thereby drawing down the lowest rung of the ladder and extending the lazy-tongs, causing the ladder to rise. When it has been so extended, it is secured in such position by screwing the clamping-nuts 12 upon the end of the lowest rung 9.

I claim—

1. In combination with the side frames, the ladder comprising lazy-tongs at each side, bars connecting the centers of the members of the lazy-tongs and forming rungs of the ladder, the lowest rung thereof but one being held stationary in the side frames and the lowest rung being slidable in said side frames, and means for drawing down the lowest rung and thereby extending the ladder, substantially as described.

2. In combination with the side frames, the ladder comprising at each side lazy-tongs and bars connecting the central members of the lazy-tongs and forming the rungs of the ladder, a lower rung thereof being held fixed in the said frames, and a still lower rung being slidable in said side frames, substantially as described.

3. In combination, the side frames having slots, the ladder comprising lazy-tongs at each side, bars connecting the centers of the members of the lazy-tongs and forming rungs of the ladder, the lowest rung entering said slots and being guided thereby, plates connected with said lower rung, and a foot-bar connected with said plates and also guided in slots of the side frames, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

OSKAR ALEKSANDER SARVELA.

Witnesses:
F. M. WRIGHT,
BESSIE GORFINKEL.