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Patented Dec. 3, 1901.

J. ZAJICEK.  
FIREMAN'S LADDER.

(Application filed May 8, 1901.)

(No Model.)

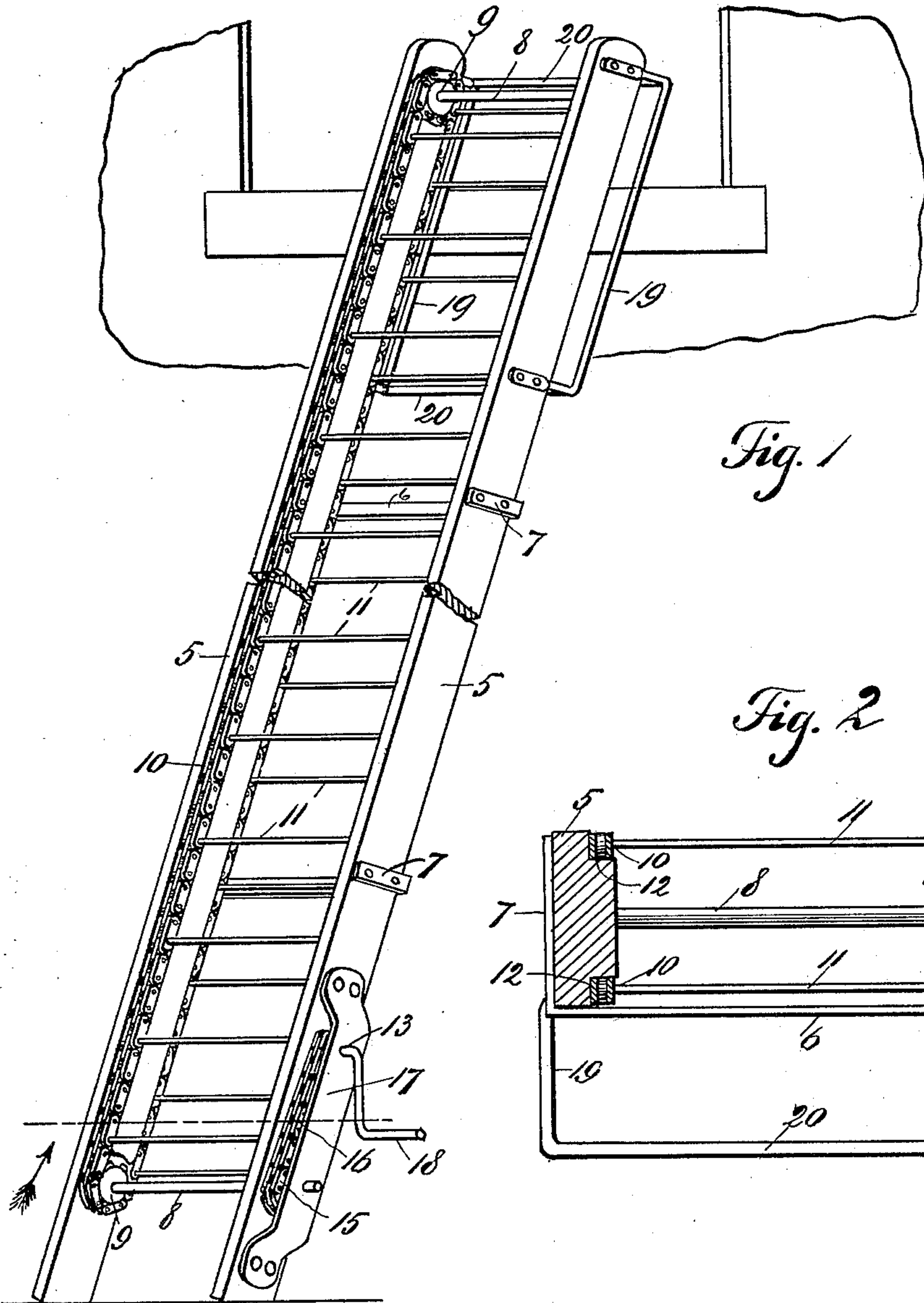


Fig. 1

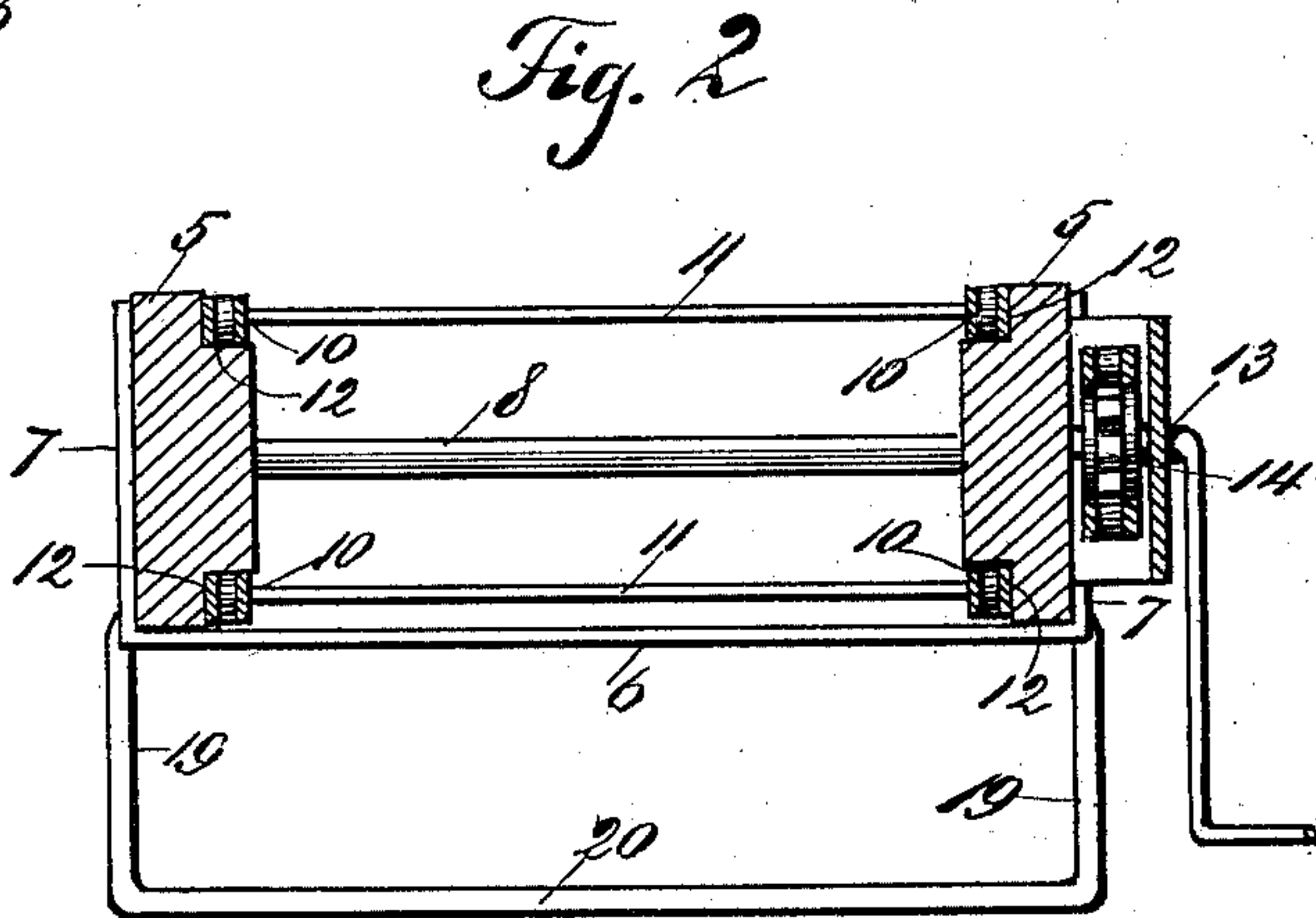


Fig. 2

WITNESSES:

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# UNITED STATES PATENT OFFICE.

JEROME ZAJICEK, OF NEW YORK, N. Y.

## FIREMAN'S LADDER.

SPECIFICATION forming part of Letters Patent No. 688,147, dated December 3, 1901.

Application filed May 8, 1901. Serial No. 59,217. (No model.)

*To all whom it may concern:*

Be it known that I, JEROME ZAJICEK, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Firemen's Ladders, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to ladders; and the object thereof is to provide an improved device of this class for use by firemen and others and in removing people from burning buildings; and with this and other objects in view the invention consists in a ladder constructed as hereinafter described and claimed.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same reference characters in each of the views, and in which—

Figure 1 is a perspective view showing the construction and operation of my improved ladder, and Fig. 2 a cross-section on the line 2 2 of Fig. 1.

In the practice of my invention I provide a ladder consisting of two parallel side bars 5, which are rigidly connected by yoke-shaped brackets comprising transverse bars 6, having angular end pieces 7, rigidly secured to the side bars 5 of the ladder in such manner that the transverse bars 6 range transversely of the ladder, beneath the side bars 5 thereof, when the ladder is in the position shown in Fig. 1.

At each end of the ladder is placed a transverse shaft 8, the opposite ends of which are provided inside of the side bars 5 with sprocket-wheels 9, and passed around these sprocket-wheels at each side of the ladder is an endless chain 10, the links of which are provided at regular intervals with rounds 11. The side bars 5 of the ladder are provided with rabbet-grooves 12, in which the endless chains 10 move, and at the lower end of the ladder and at a predetermined distance above the lower transverse shaft 8 one of the side bars 5 is provided with a crank-shaft 13, provided with a sprocket-wheel 14, and the corresponding end of the corresponding shaft 8

is also provided with a similar sprocket-wheel 15, and mounted on the sprocket-wheels 14 and 15 is a drive-chain 16. The crank-shaft 13 is supported by the corresponding side bar 5 of the ladder and by a bracket-plate 17, in which the lower shaft 8 also has a bearing, and by turning the crank 18 of the crank-shaft 13 the chains 10 may be carried around the shafts 8 and wheels 9, as will be readily understood. I also preferably provide the end of the ladder opposite the crank 18 with side brackets 19, which are connected by transverse bars 20 in order to give strength and rigidity thereto, and the side brackets 9 are intended to hold the ladder away from the wall or window-sill of a house when said ladder is placed in position for use, as shown in Fig. 1.

It will be observed that the ladder is not provided with the usual rounds, the only rounds in use being those connected with the chains 10, and the operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof.

If a person steps on the rounds connected with the upper reaches of the chains 10 at the bottom of the ladder, he may be raised to the top thereof, as will be readily understood, by turning the crank-shaft 13, and if a fireman or other person be within the building and desire to escape from the window all that is necessary is for such person to step on the rounds of the ladder and hold to the rounds above his feet by means of his hands, and he may be lowered to the ground by reversing the movement of the crank-shaft 13.

It will be apparent that this form of ladder will be of particular use in cases where a fireman or other person desires to carry another party from a burning building, all that is necessary in this case being for such fireman or other person to step upon the rounds of the ladder and hold himself with one hand, while the party that he is desiring to remove from the building is held with the other hand.

My improved ladder is simple in construction and operation and perfectly adapted to accomplish the result for which it is intended, and it will be apparent that changes in and modifications of the construction herein de-



scribed may be made without departing from the spirit of my invention or sacrificing its advantages.

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

In a device of the class described, the combination with side bars each provided on the inner side with two longitudinal chain-receiving rabbet-grooves extending from end to end thereof, of yoke-shaped brackets securing such side pieces together into the form of a rectangular frame, revoluble shafts carrying a sprocket-wheel at either end within the  
15 frame mounted at the end in the side pieces of such frame, an endless sprocket-chain located in the chain-receiving rabbet-grooves of each of the side pieces passing over the two sprocket-wheels on that side, of the  
20 frame, a yoke-piece secured on one of the side pieces of the frame adjacent to the bottom,

the revoluble sprocket-shaft at this end of the ladder extending through the side piece and into the yoke-piece, a sprocket-wheel secured upon the end of the sprocket-wheel  
25 shaft between the side piece and the yoke, a shaft provided with a crank pivotally journaled in the yoke-piece above the first sprocket-wheel, a sprocket-chain connecting the two sprocket-wheels with one another between the yoke-piece and the side bar, and a plurality of rounds or ladder-treads connecting the longitudinal sprocket-chains together, substantially as shown and described. 30

In testimony that I claim the foregoing as  
35 my invention I have signed my name, in presence of the subscribing witnesses, this 6th day of May, 1901.

JEROME ZAJICEK.

Witnesses:

F. A. STEWART,  
F. F. TELLER.