

(No Model.)

J. SCHADE.
LADDER.

No. 523,011.

Patented July 17, 1894.

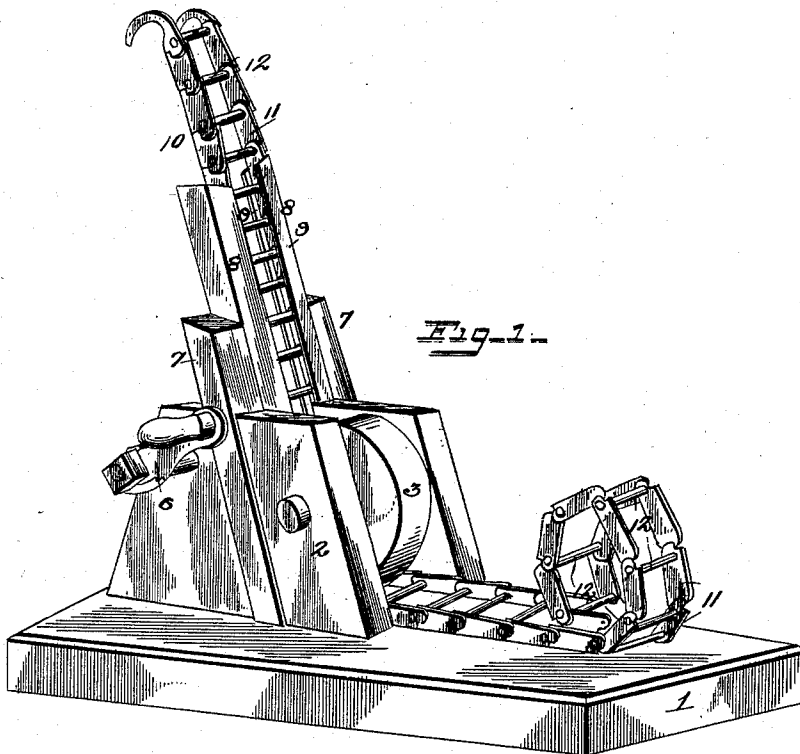


Fig. 1.

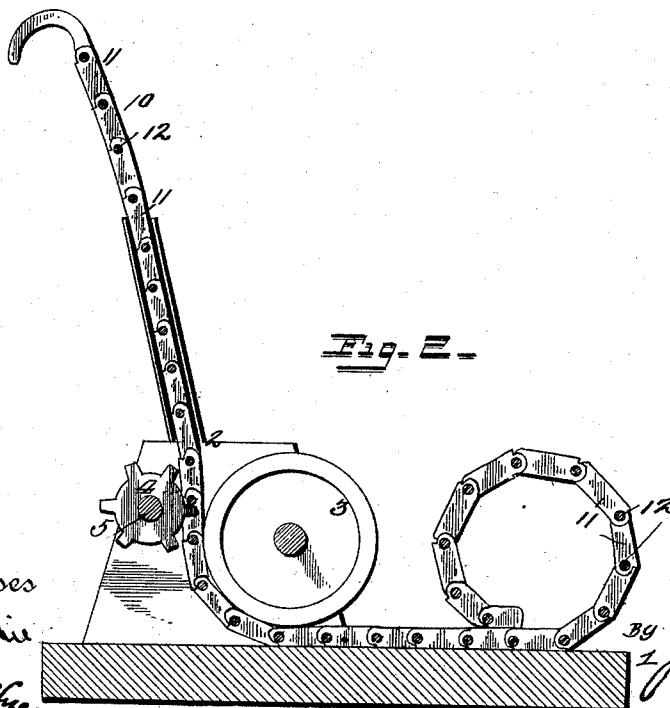


Fig. 2.

Witnesses

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LADDER.

SPECIFICATION forming part of Letters Patent No. 523,011, dated July 17, 1894.

Application filed September 23, 1893. Serial No. 486,283. (No model.)

To all whom it may concern:

Be it known that I, JULIUS SCHADE, a citizen of the United States, and a resident of Los Angeles, in the county of Los Angeles and State of California, 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.

This invention relates to ladders, and has for its object to provide simple and effective means for projecting ladders upwardly to a considerable height, and wherein is employed a flexible link ladder.

With these and other objects in view, the invention consists of the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of mechanism, embodying the invention. Fig. 2 is a central, longitudinal section of the same.

Similar numerals of reference are employed to indicate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates the base, upon which is mounted a pair of uprights 2, adjacent to one end thereof and in the rear part of the said upright is mounted a feed-wheel 3. In advance of the said feed-wheel 3 is a sprocket or analogous wheel 4, having a projecting shaft 5 with an operating crank handle 6. Secured to the outer sides of the uprights 2 and projecting above the upper terminating edges of the latter are a pair of inclined posts 7, which support a rigid guide 8, with inturned edges 9. In connection with the mechanism thus far described, a flexible ladder 10 is employed, which is composed of a series of pivotally connected links 11, with rounds 12. The uprights 2 are preferably such a distance apart as to easily accommodate the width of the ladder which passes under the roller 3, when fed upwardly by the sprocket or other wheel 4, through the guide 8, to any suitable distance, which may be desired above the same. It will be seen that the links of the

ladder are so connected and arranged that they will fold inwardly, but when opened, and a pressure is brought to bear in the opposite direction, the ladder will be sustained in rigid form at an angle of inclination toward the structure or elevation to which it is to be raised.

The ladder and its mechanism herein set forth, is particularly adapted for use in case of fires and may be unrolled from a suitable supporting device, and has at its upper end a pair of hooks which are adapted to grip upon a projection for the purpose of attachment. This will serve as a simple means of allowing persons to escape from a burning building with ease, and comfort and it will also be seen that the use of the flexible ladder provides for applying a fire escape at any part or point of the building without requiring the person desiring to escape to travel any distance.

The device as a whole is simple and effective in its construction and operation, and many advantages can be derived from the use of the same, either for or independent of the purpose stated.

Having thus described the invention, what is claimed as new is—

The combination with a flexible ladder, of inclined guides which are oppositely situated and have front and back flanges, a sprocket wheel below and in rear of the said guides engaging the rounds of the ladder, and adapted to be revolved to feed the ladder up through the guide, and a roller in front of the guide and below the same which presses upon the ladder and feeds the same in a horizontal plane thereunder, the said roller being mounted at a distance above the base or support slightly greater than the thickness of the said pieces of the ladder, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JULIUS SCHADE.

Witnesses:

L. MAYER,
C. JACOBY.