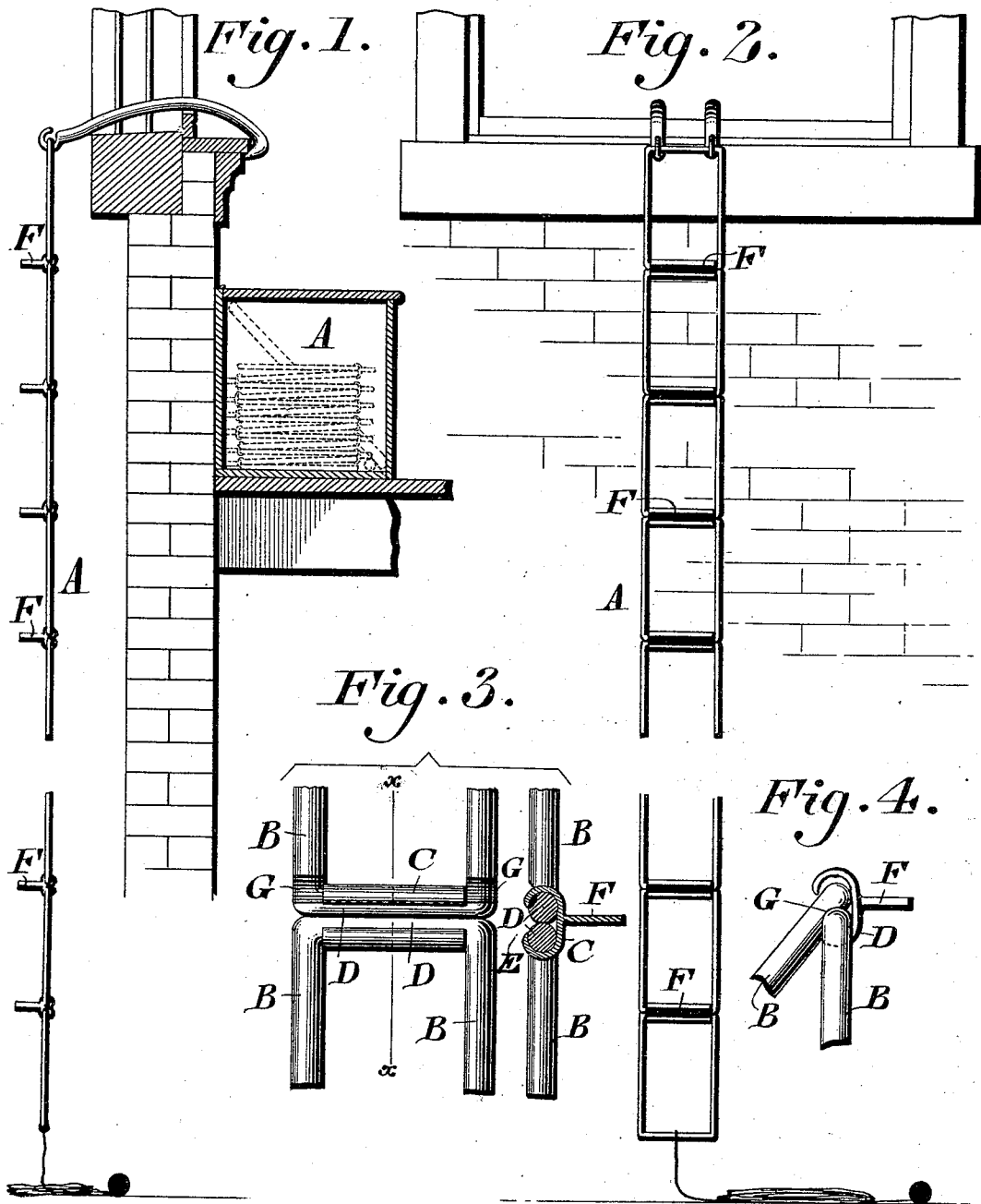


(No Model.)

C. DOEHLER.
FIRE ESCAPE.

No. 518,055.

Patented Apr. 10, 1894.



WITNESSES:

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FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 518,055, dated April 10, 1894.

Application filed October 16, 1893. Serial No. 488,207. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DOEHLER, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Fire-Escapes, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a fire escape formed of links and couplings, whereby the links are firmly connected when the escape is in use, and they may be folded when desired and separated.

It also consists in providing a fire escape formed of links, with steps, as will be hereinafter set forth.

Figure 1 represents a side elevation of a fire escape embodying my invention. Fig. 2 represents a front view thereof. Fig. 3 represents a front view and a section thereof on line *x, x*, of portions of contiguous links. Fig. 4 represents a side elevation of parts shown in Fig. 3, illustrating the manner of disconnecting the links.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings: A designates a chain formed of links B and couplings C, which connect the cross bars D of said links, said couplings being of somewhat elliptical or C-form in cross section, with open throats E in their sides, and having their upper and lower walls embrace said cross bars, whereby the links are attached one to the other, said coupling also permitting the links to be folded one on the other, as shown in dotted lines Fig. 1, so that the device may be stowed away when not in use. Projecting horizontally from the couplings are steps F, which with the other parts form a ladder, whereby a party using the escape may readily descend the same, the ladder as formed, being clearly shown in Figs. 1 and 2.

As the couplings are of elliptical form, and they embrace the contiguous cross bars of the link, they are prevented from turning or shifting, the weight or downward draft of the links on the couplings assisting the same, and thus the steps retain their horizontal positions. As the contiguous cross bars are thicker together in vertical direction than the throats E, said cross bars are prevented from slipping out of said throats, but in order to apply and remove the links, the sides

of the links and adjacent portions of the cross bars have horizontal or transversely-extending grooves G formed thereon. Now when a link is turned at an acute angle to the adjacent link, as in Fig. 4, the portions of the contiguous link opposite to said grooves enter the latter, whereby the grooved link may be slipped outwardly on the other link for disconnection, it being evident that an inward motion of the grooved link on the other link will again connect the links.

A ball and rope may be attached to the end of the chain, so that the escape may be thrown from one window to another.

The hook employed for connecting the escape with a window sill will disconnect itself therefrom when raised.

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

1. A fire escape formed of links and couplings, said couplings being of elliptical form in cross section, with throats in their sides, the contiguous cross bars of the links being embraced by the upper and lower walls of said couplings, substantially as described.

2. A fire escape consisting of links with cross bars, and couplings for said cross bars of the links having projections thereon forming steps, said parts being combined substantially as described.

3. A fire escape consisting of links with cross bars, elliptical couplings connecting the cross bars of adjacent links, and steps projecting from said couplings, said parts being combined substantially as described.

4. A fire escape formed of links and couplings, which embrace the contiguous cross bars thereof, the sides and cross bars of said links being grooved to provide for the connection and disconnection of the links, substantially as described.

5. A fire escape formed of links, couplings therefor, and steps, said couplings embracing the contiguous cross bars of the links and having open throats in their sides, and said steps projecting horizontally outward from said couplings, the parts named being combined substantially as described.

CHARLES DOEHLER.

Witnesses:

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