H. D. HARTOG.

FIRE ESCAPE.

APPLICATION FILED JUNE 30, 1914.

**1,133,722.** Patented Mar. 30, 1915.

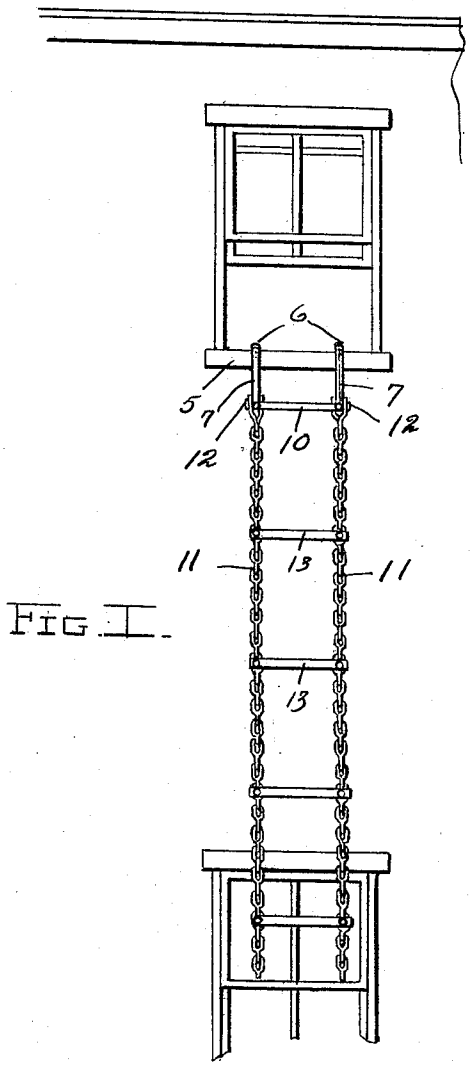



FIG. 1.

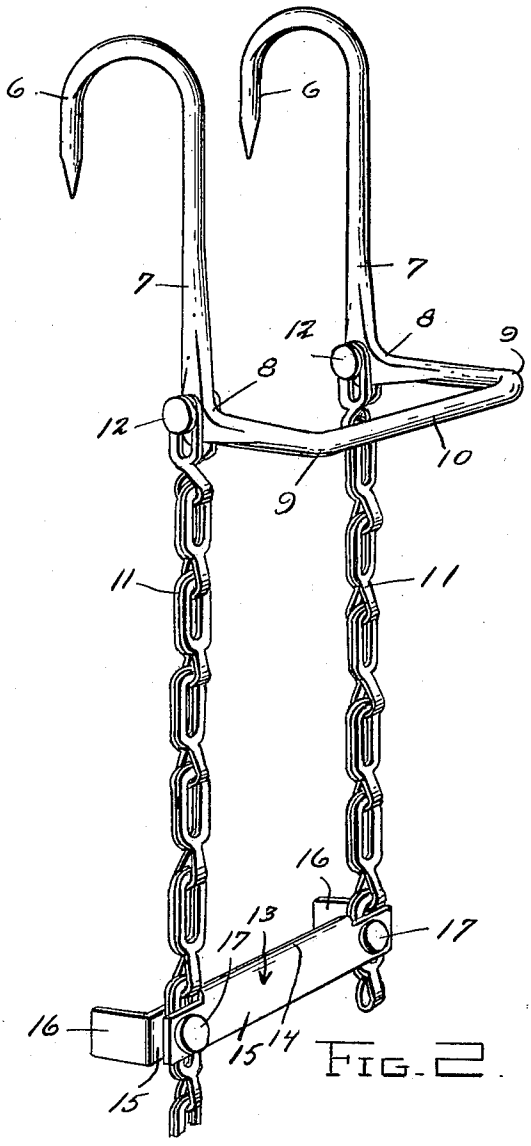



FIG. 2.

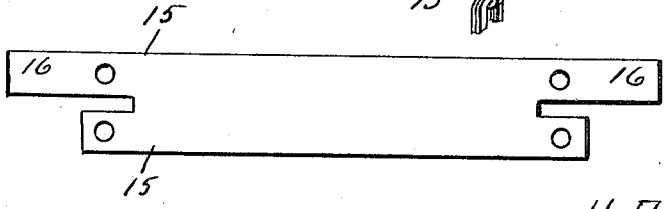



FIG. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

HENRY DEN HARTOG, OF ORANGE CITY, IOWA.

## FIRE-ESCAPE.

1,133,722. Specification of Letters Patent. Patented Mar. 30, 1915.

Application filed June 30, 1914. Serial No. 848,254.

*To all whom it may concern:*

Be it known that I, HENRY DEN HARTOG, a citizen of the United States, residing at Orange City, in the county of Sioux, State of Iowa, have invented certain new and useful Improvements in Fire-Escapes; 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 fire escape devices, particularly to a fire escape adapted to be secured upon a window sill only in time of need and has for its object the provision of a novel form of ladder adapted to be attached to a window sill whereby the occupant of a building may descend in safety to the ground below, the sides of the ladder being flexible to occupy but little space when the ladder is not in use.

A more important object is the provision of a chain ladder of this character having its rungs of peculiar construction whereby they are spaced from the wall of the building to which the ladder is applied and which are formed of a single piece of metal stamped and bent to the proper form.

Another object is the provision of a device of this character which is provided with a rigid and strong step formed integral upon the window sill engaging members whereby the user of the ladder may easily support himself after climbing out of the window and prepared to descend.

A further object is the provision of a ladder of this character which will be simple and inexpensive in manufacture, efficient and durable in use and a general improvement of the art.

Other objects and advantages will become apparent during the course of the following description accompanied by the illustrative drawing in which—

Figure 1 is a front elevation of my novel ladder applied to the window sill of a building; Fig. 2 is a perspective view of the upper portion thereof; Fig. 3 is a plan view of the blank from which a rung or step is made.

Referring more particularly to the drawing the numeral 5 designates the window sill of a building which is adapted to be engaged by hooks 6 which extend upwardly and outwardly over the window sill and terminate in downwardly extending shanks 7 which are bent outwardly and then toward each other as shown at 8 and 9 to form a horizontal portion 10 offset from the side of the building. This portion 10 serves as a stationary and rigid step when the occupant of the room or building climbs out of the window. It will be seen that the lower ends of the shanks 7 at the bend 8 bear firmly against the wall of the building and thus hold the device securely. A ladder member depends from this upper portion and comprises a pair of spaced chains 11 which are connected at their upper ends with the lower ends of the shanks 7 at the bends 8 by bolts 12 or other suitable means. Disposed at intervals throughout the length of the chains is a plurality of steps or rungs, indicated as a whole by the numeral 13. These steps are of novel construction and are formed preferably from a single sheet of metal, bent longitudinally at its center to form a substantially U-shaped body portion 14 terminating in spaced arms 15, the innermost of the arms terminating in lateral extensions 16. The steps or rungs 13 are secured upon the chain 11 by disposing a link between the arms 15 and securing it there-between by means of a bolt or rivet 17. It will be seen that when a ladder constructed in this manner is hooked upon a window sill the extensions 16 will bear against the wall and consequently hold the steps or rungs away from the side of the building so that the person descending the ladder will have room for his hands and toes without striking against the wall.

From the foregoing description and a study of the drawing it will be apparent that I have thus provided a simple and novel fire escape ladder which will be readily attached to a window sill and which then will serve to permit the occupant of a room to descend to safety with ease.

It will be readily understood that I reserve the right to make various changes in the form, construction and arrangement of parts without departing from the spirit of the invention or limiting the scope of the subjoined claim.

Having thus described my invention, I claim:

A fire escape ladder comprising a pair of

spaced chains, and a plurality of steps secured upon said chains, each step being formed from a single sheet of metal longitudinally bent to form a substantially U-shaped portion cut out at each end to form spaced arms in which a chain is received, the innermost of said arms being bent inwardly to form wall engaging extensions.

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

HENRY DEN HARTOG.

Witnesses:
W. H. HASPLES,
G. J. SLOB.

**Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."**