

(No Model.)

T. PRUSHEY.
FLEXIBLE METAL FIRE ESCAPE.

No. 513,139.

Patented Jan. 23, 1894.

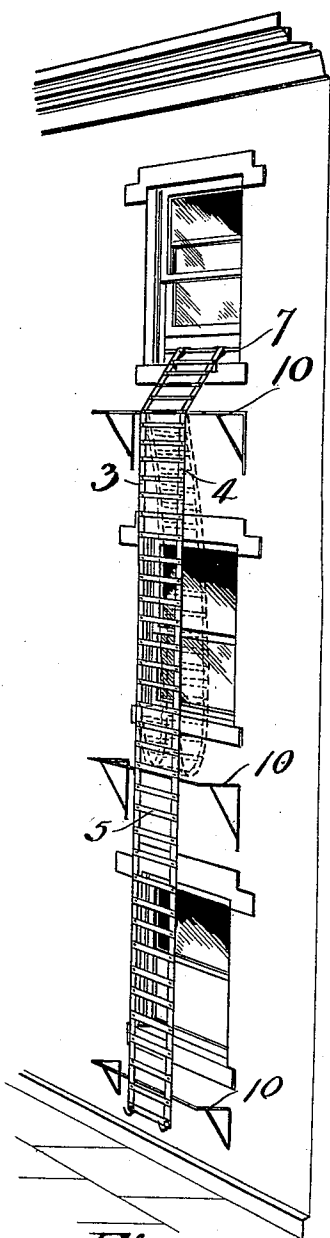


Fig. 1.

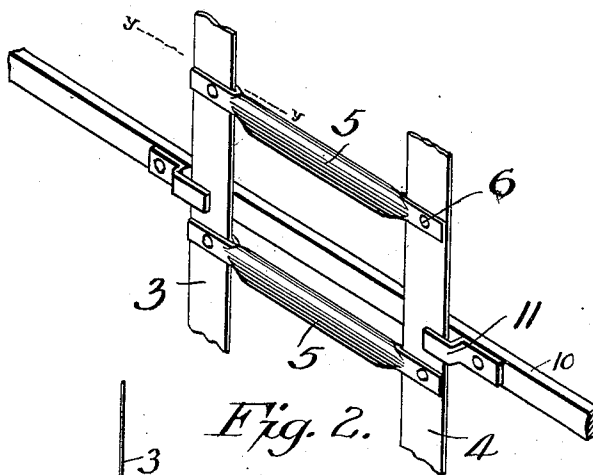


Fig. 2.

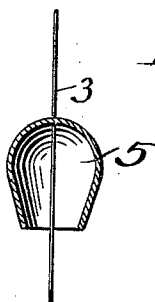


Fig. 4.

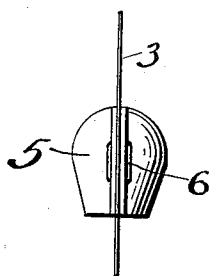


Fig. 5.

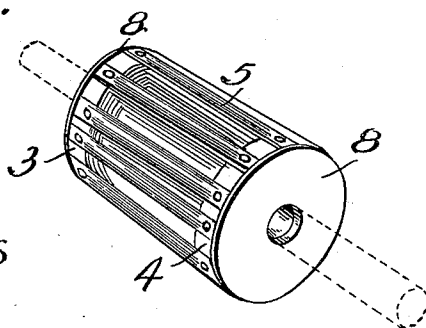


Fig. 6.

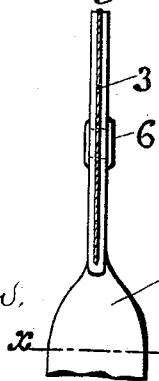


Fig. 3.

Witnesses,
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UNITED STATES PATENT OFFICE.

THOMAS PRUSHEY, OF MINNEAPOLIS, MINNESOTA.

FLEXIBLE METAL FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 513,139, dated January 23, 1894.

Application filed March 23, 1893. Serial No. 467,238. (No model.)

To all whom it may concern:

Be it known that I, THOMAS PRUSHEY, of the city of Minneapolis, county of Hennepin, State of Minnesota, have invented a certain new and Improved Flexible Metal Fire-Escape, of which the following is a full, clear, and exact description.

My invention relates to improvements in ladders and more especially in fire escapes.

The object of my invention is to provide a ladder which shall be composed entirely of metal and yet which will possess all of the flexible qualities of rope and at the same time be nearly as light and more convenient to handle and use.

My invention consists in the combination with two steel tapes or bands, of U-shaped sheet metal cross-bars having split ends riveted thereto, whereby the whole ladder may be rolled into a small, compact bundle; and my invention further consists in various details of constructions and in combinations all as hereinafter described and more particularly pointed out in the claims.

The invention will be more readily understood by reference to the accompanying drawings forming a part of this specification and in which—

Figure 1 is a perspective view showing one of my ladders or fire escapes in use. Fig. 2 is an enlarged perspective view showing the detailed construction of the ladder. Fig. 3 is an enlarged detail sectional view taken on line *y—y* of Fig. 2 showing the manner of attaching the cross-bar to the tape. Fig. 4 is a sectional view thereof on the line *x—x* of Fig. 3. Fig. 5 is an end view thereof and Fig. 6 is a perspective showing the ladder rolled up.

As shown in the drawings my ladder is made up of two long and thin steel tapes 3 and 4 connected by the cross-bars 5, which bars are each composed of a wide, flat sheet of the thin steel material, which sheet is bent into a substantially "U" form inverted. The ends of the bars thus made are split and the steel tapes are placed between them the bar then being secured upon the steel by rivets 6 which pass through the two parts of the split ends and through the intervening metallic strip or tape. In this manner I am en-

abled to provide a cross-bar of extremely light weight and still of sufficient strength to readily support the weight of a person. Further, the bars, being rounded, will in no way lacerate the hands of a person descending the ladder. The ladder thus made up of the flexible side pieces may be as readily wound up as so much rope and will occupy but little more space. I secure the upper end of the ladder upon a long rod or arbor 7 and wind the ladder thereon. For the sake of neatness, I may provide the end disks on the arbor.

In use the end of the ladder is uncoiled from the roll and thrown out through the window, the bar being placed across the window casing and forming a reliable fastening for the upper end of the ladder.

I may prefer to provide one or more brackets 10 upon the outside wall of the building beneath the window-sill or sills and by throwing the end of the ladder over and outside of these brackets prevent the ladder from swinging against the walls in which case a person's feet might be pushed from the rounds or the hands bruised by striking against the wall of the building.

Where the ladder is intended to be used as a permanent fixture upon the outside wall of the building, I provide clips 11 upon the cross-bars of the brackets 10, which clips embrace the side strips and prevent the ladder from swinging laterally. I may also provide hooks or other fastenings at the lower end of the ladder to prevent its swinging.

If desired, the lower end of the ladder may be drawn up in a loop as shown by dotted lines in Fig. 1.

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

1. A flexible metallic ladder, composed of thin, flexible steel tapes and transversely bent, U-shaped sheet metal rounds riveted thereto, substantially as described.

2. In a flexible metallic ladder, the combination of thin steel tapes, making up the sides of the ladder and with the inverted "U" form metal rounds, or cross-bars, having split ends embracing and riveted to said tapes substantially as described.

3. The combination with the thin metal
tapes or strips of the inverted U-shaped sheet
metal cross-bars or rounds riveted to said
tapes and a cross-bar or arbor 7 whereto the
5 upper ends of said tapes are secured substan-
tially as described and for the purpose speci-
fied.

In testimony whereof I have hereunto set
my hand this 18th day of March, 1893.

THOMAS PRUSHEY.

In presence of—

C. G. HAWLEY,
F. S. LYON.