(No Model.)

# D. LUSCHER.

## FIRE ESCAPE.

No. 276,057. Patented Apr. 17, 1883.

Fig. 1.

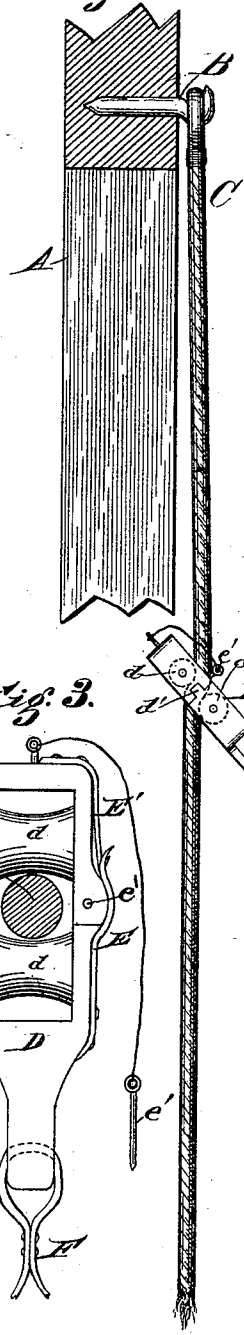


Fig. 2.

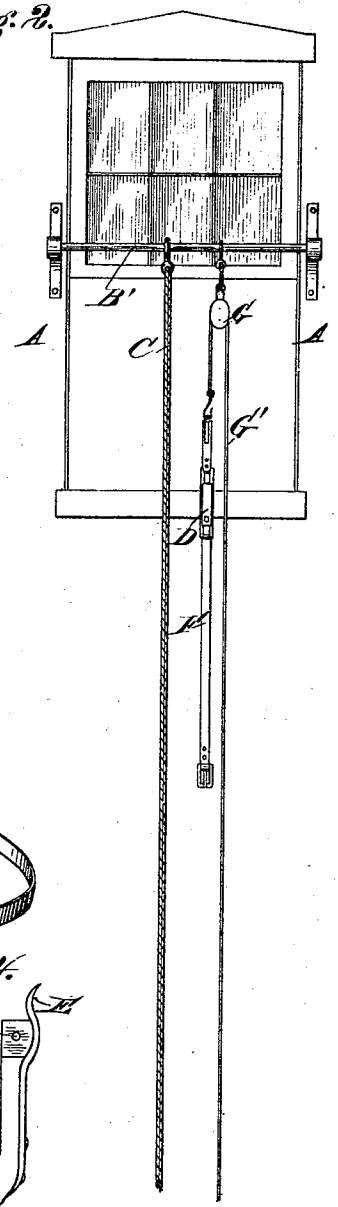


Fig. 3.

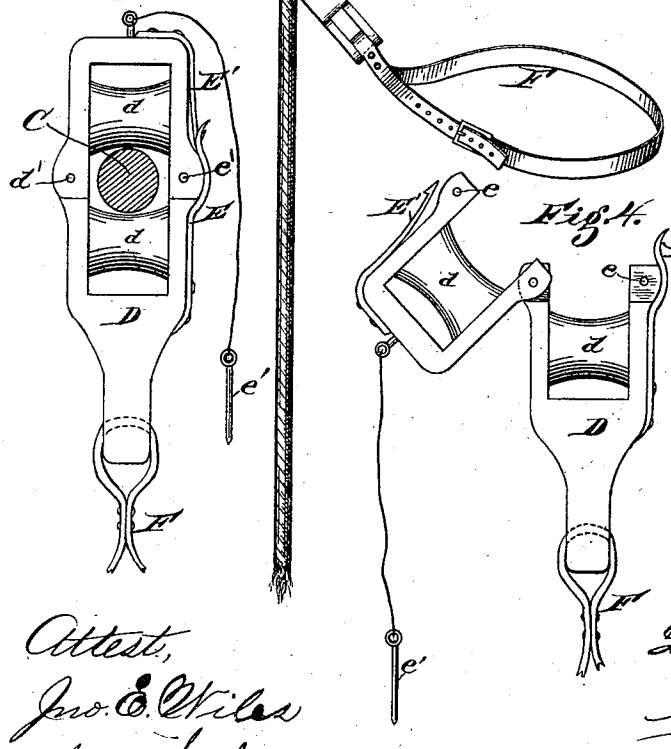


Fig. 4.




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# UNITED STATES PATENT OFFICE.

DANIEL LUSCHER, OF CINCINNATI, OHIO.

## FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 276,057, dated April 17, 1883.

Application filed December 21, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL LUSCHER, a citizen of the United States, and a resident of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Fire-Escapes, of which the following is a specification.

My invention relates to an improvement in fire-escapes.

My invention consists in the provision of a sheave-block made in two parts connected together in such a manner that they can be swung open upon hinges to receive or release a rope, combined with a spring-snap fastening for holding the hinged parts in a closed position, the said rope being secured at its upper end to a building, which rope is acted upon by rollers journaled in both of said parts, to permit the safe descent of persons or things suspended from said sheave-block by a body-belt connected therewith, the construction and operation of which will be fully hereinafter described.

Other features of my invention will be fully set forth in the following description of the accompanying drawings, in which—

Figure 1 represents my improvement in position for operation, shown attached to a window or door frame of a house. Fig. 2 is a modification, showing another mode of attaching my improvement to a door or window. Fig. 3 represents a hinged sheave-block shown closed around the rope upon which descent is made. Fig. 4 represents the sheave-block shown open to receive or release the rope.

A represents the frame of a door or window; B, a hook driven into frame A, or into the wall above or between the windows, and to which is secured rope C.

D represents the expansible hinged sheave-block, in which are journaled friction-rollers *d*.

*d'* represents the hinged joint of sheave-block D.

E E' represent a spring-snap fastening for temporarily locking the two parts of the hinged sheave-block in position upon the rope.

*e* represents a hole passing through the two parts of the sheave-block, and through which pin *e'* is passed in order to serve as an additional means to more securely fasten the parts of the sheave-block in a closed position.

F represents a body-belt secured to sheave-block D, and which is to be buckled around the waist of the person using my device.

G G' represent a block and tackle for drawing up the belt with the attached sheave-block.

When it is desired to use my device, rope C is secured to hook B, as in Fig. 1, or to rod B', as in Fig. 2. The person using it secures body-belt F about his waist, unclasps the sheave-block D, as shown in Fig. 4, and secures it around rope C, as shown in Fig. 3, when he may descend or lower himself from the window. In use the various parts assume the positions shown in Fig. 1, and the sheave-block D being on an incline, the rope C, passing between pulleys *d d*, is bent, as shown in Fig. 1, and rollers *d d* act as brakes to retard the downward motion. The bend in rope C prevents sheave-block D from passing too rapidly down the rope. The angle of inclination of sheave-block D is greater or less, according to the weight of the person descending, and the nearer block D approaches to a perpendicular position the greater the resistance to the rope passing between pulleys *d d*. The person descending may easily regulate the rapidity of his descent by holding with one or both hands to rope C.

The hook B may be used as shown in Fig. 1; but the preferable form of securing my device to a building is shown in Fig. 2. Rope G' being secured to belt F, as soon as one person has descended and released himself, belt F, with attached sheave-block D, can be readily drawn up again and the operation repeated, as before.

I claim—

A fire-escape composed of a two-part sheave-block supporting a body-belt, said parts being hinged so as to open and close upon a descent-rope, and provided with a spring-snap fastening, E E', substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DANIEL LUSCHER.

Witnesses:
JNO. E. JONES,
AARON HAHN.