(No Model.)

N. H. BORGFELDT.

FIRE ESCAPE.

No. 294,360. Patented Mar. 4, 1884.

Fig: 4

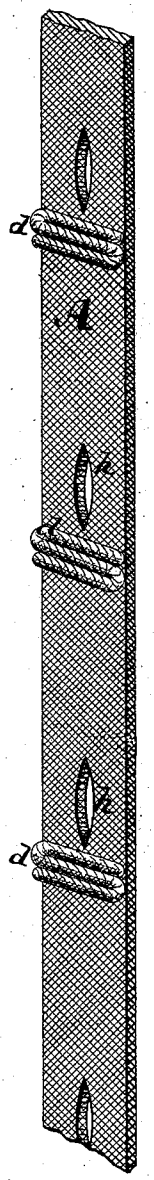


Fig: 2

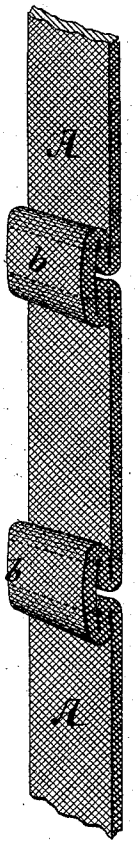


Fig: 1

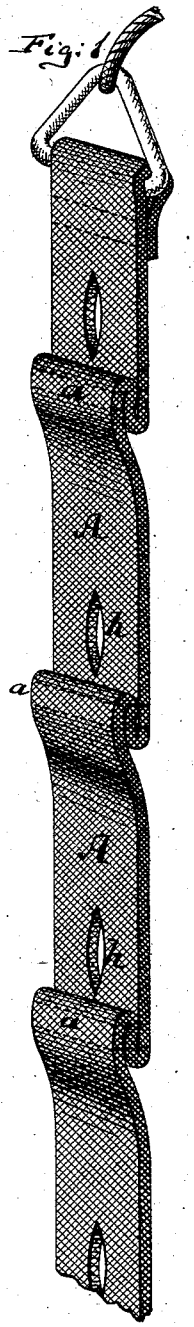


Fig: 3

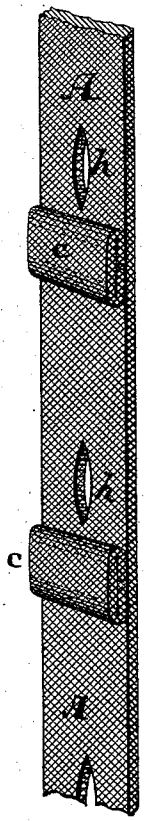


Fig: 5

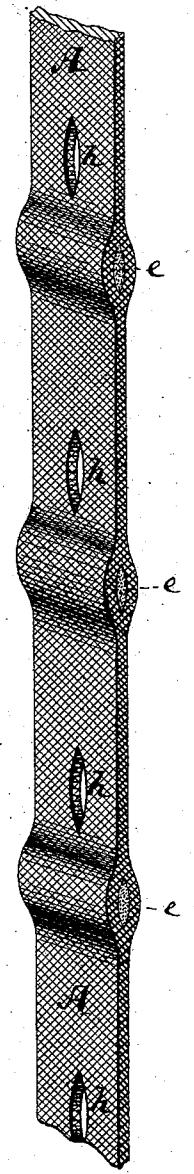


Fig: 6

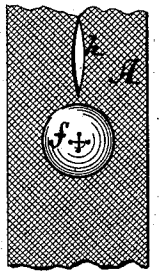
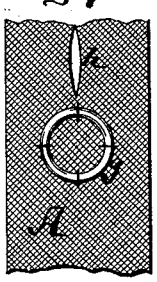


Fig: 7



Witnesses.
John C. Tunbridge.
John M. Speer.

Inventor;
Nicholas H. Borgfeldt
by his attorneys
Briesen & Steele

N. PETERS. Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

NICHOLAS H. BORGFELDT, OF NEW YORK, N. Y.

FIRE-ESCAPE.

SPECIFICATION forming part of Letters Patent No. 294,360, dated March 4, 1884.

Application filed April 28, 1883. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS H. BORGFELDT, of New York city, county and State of New York, have invented an Improved Fire-Escape, of which the following is a specification.

Figure 1 is a view in perspective of my improved fire-escape. Figs. 2, 3, 4, and 5 are detail views, in perspective, of modifications thereof. Figs. 6 and 7 are detail front views of modifications thereof.

The object of this invention is to supply a flexible fire escape, which is made out of a broad flat band having projections of various kinds formed on or attached to its face, so as to afford on one side of the band a rest and hold for the hands or feet of the person using the fire-escape, and thus enable it to be descended or ascended with greater ease and safety.

In the accompanying drawings, the letter A represents the broad band of a fire-escape, which may be made of any suitable flexible material, and which may be fastened at one end to any suitable hook, clamp, or fastening device, by which the fire-escape can be hung on or attached to a house or other object when it is desired to use the escape.

In order to form projections upon the band which is to be used as a fire-escape, said band may be either doubled on itself for a short distance at fixed intervals and made fast in such doubled form, as shown at *a* in Fig. 1 of the drawings, or the band may be doubled on itself both from above and from below, as shown at *b* in Fig. 2; or cross-pieces *c* and *d*, of rope or other suitable fabric, may be attached to the band at intervals, as shown in Figs. 3 and 4. The band may also be so woven as to leave openings at intervals running through its width, and with a portion of the fabric on each side thereof, into which openings may be inserted any suitable filling to form the projections *e e e*, (shown in Fig. 5;) or buttons *f*, of suitable material, may be fastened to the band at intervals, as indicated in Fig. 6, or rings *g*, (shown in Fig. 7,) or similar objects, which, when the band is grasped above them, will form a rest for the hand or foot.

In use my flexible fire-escapes are allowed to hang from the windows or other openings for escape, and the person using them can easily and safely descend by sliding down or going down hand-over-hand, his descent being, whenever desired, retarded by the various projections on the surface of the fire-escape, which projections also give a support for the hands and feet, if he desires to stop himself or to hang suspended for some time from any one part of the escape. The band may also have the holes or slits *h h*, described in my patent No. 256,874, of April 25, 1882, so that the enlargements or ribs hereinbefore described may be used to co-operate with the rests formed by said slits; but I do not wish to limit the use of said projections or enlargements to the combination with said slits.

It will be seen that the enlargements on the face of the band do not extend beyond its edges, which are left unobstructed.

I do not claim forming knots or securing balls in ropes, by which the width of the rope is enlarged on all sides, and whereby a person is prevented from sliding down on such rope. By my invention at least two sides of the flat band are left without projections.

I claim—

1. As a new article of manufacture, a fire-escape composed of a flexible flat band, A, provided with lateral enlargements, which do not exceed in length the width of said band, and which are placed at intervals along the surface of said band, substantially as and for the purposes herein shown and described.

2. The band A, having slits *h h*, and lateral enlargements between said slits, substantially as herein shown and described.

NICHOLAS H. BORGFELDT.

Witnesses:

GUSTAV SCHNEPPÉ,

SAML. R. BETTS.