B. F. FRANK.

FIRE-ESCAPES.

No. 193,861. Patented Aug. 7, 1877.

Fig. 1.

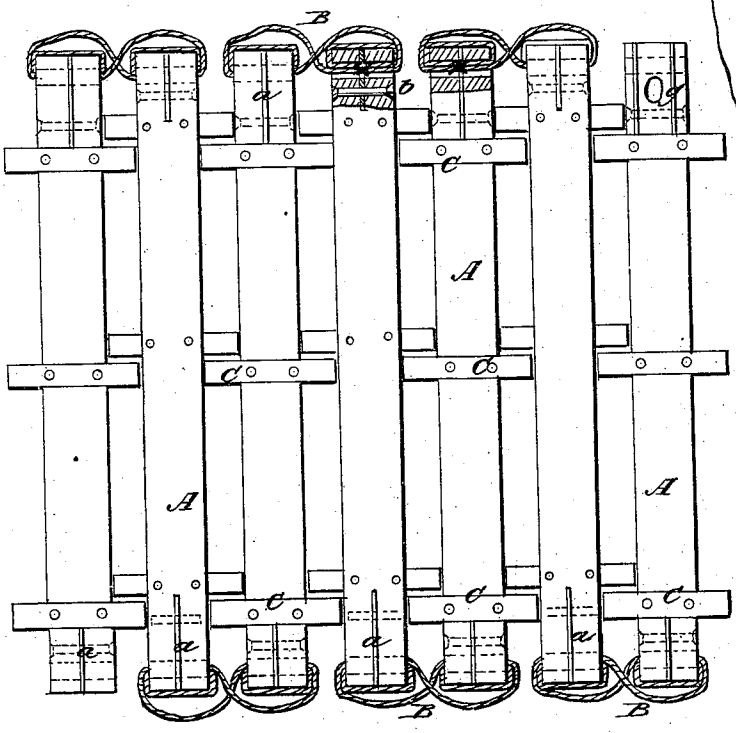


Fig. 2.

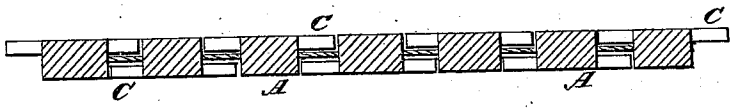
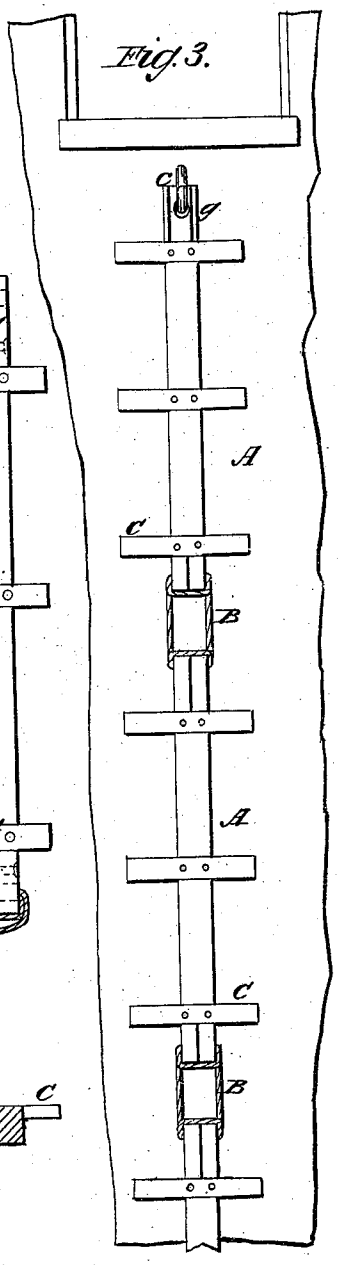


Fig. 3.



WITNESSES:

Francis McArdle.

J. H. Scarborough.

INVENTOR:

B. F. Frank.

BY Munn & Co

ATTORNEYS.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

BENJAMIN F. FRANK, OF COLFAX, CALIFORNIA.

IMPROVEMENT IN FIRE-ESCAPES.

Specification forming part of Letters Patent No. **193,861**, dated August 7, 1877; application filed June 30, 1877.

To all whom it may concern:

Be it known that I, BENJAMIN F. FRANK, of Colfax, in the county of Placer and State of California, have invented a new and Improved Fire-Escape, of which the following is a specification:

The object of my invention is to utilize the slats of a bedstead for a ladder, by means of which persons can escape from the upper stories of a burning building should other means of escape be cut off.

The nature of my invention consists in a ladder which is composed of slats connected together by strong ropes, and provided with cross-pieces, which are secured at proper intervals apart, and adapted to serve as foot-rests and hand-holds, as will be hereinafter explained.

In the annexed drawing, Figure 1 is a plan view, partly in section, showing the slats arranged as they would be for a bed-bottom. Fig. 2 is a sectional view of Fig. 1. Fig. 3 shows the slats arranged to serve as a ladder.

Similar letters of reference indicate corresponding parts.

The slats are designated by the letter A. They should be made sufficiently strong to sustain the weight of several persons, and they may be made of any desired length. The ends of the slats are all connected together by ropes B, which are, preferably, passed twice through the ends, and prepared by tarring, so that they will be very strong and durable.

To increase the strength of the slats at their ends, and prevent them from splitting when subjected to strain, I insert metal plates *a* into the ends, and use bolts or rivets *b*, as shown in the drawing.

For the purpose of affording foot and hand holds I secure cross-pieces C to the slats at suitable distances apart. These cross-pieces are not in the way when the slats are arranged in a bedstead. On the contrary, they serve to space the slats and hold them in their proper places.

When the slats are used for a ladder they are suspended from a hook, *c*, made fast in the building-wall, just below a window-sill, and for this purpose a hole, *g*, is made through the end of the topmost slat to receive the hook.

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

Slats A, flexibly connected together, and having cross-pieces C secured to them, substantially in the manner and for the purposes described.

BENJAMIN FRANKLIN FRANK.

Witnesses:

WILLIAM WALLACE HOLDER,

JAMES BOLTON ROBBINS.