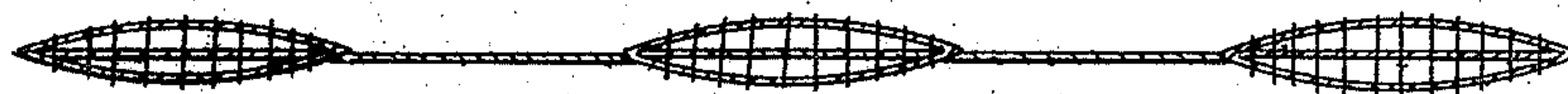
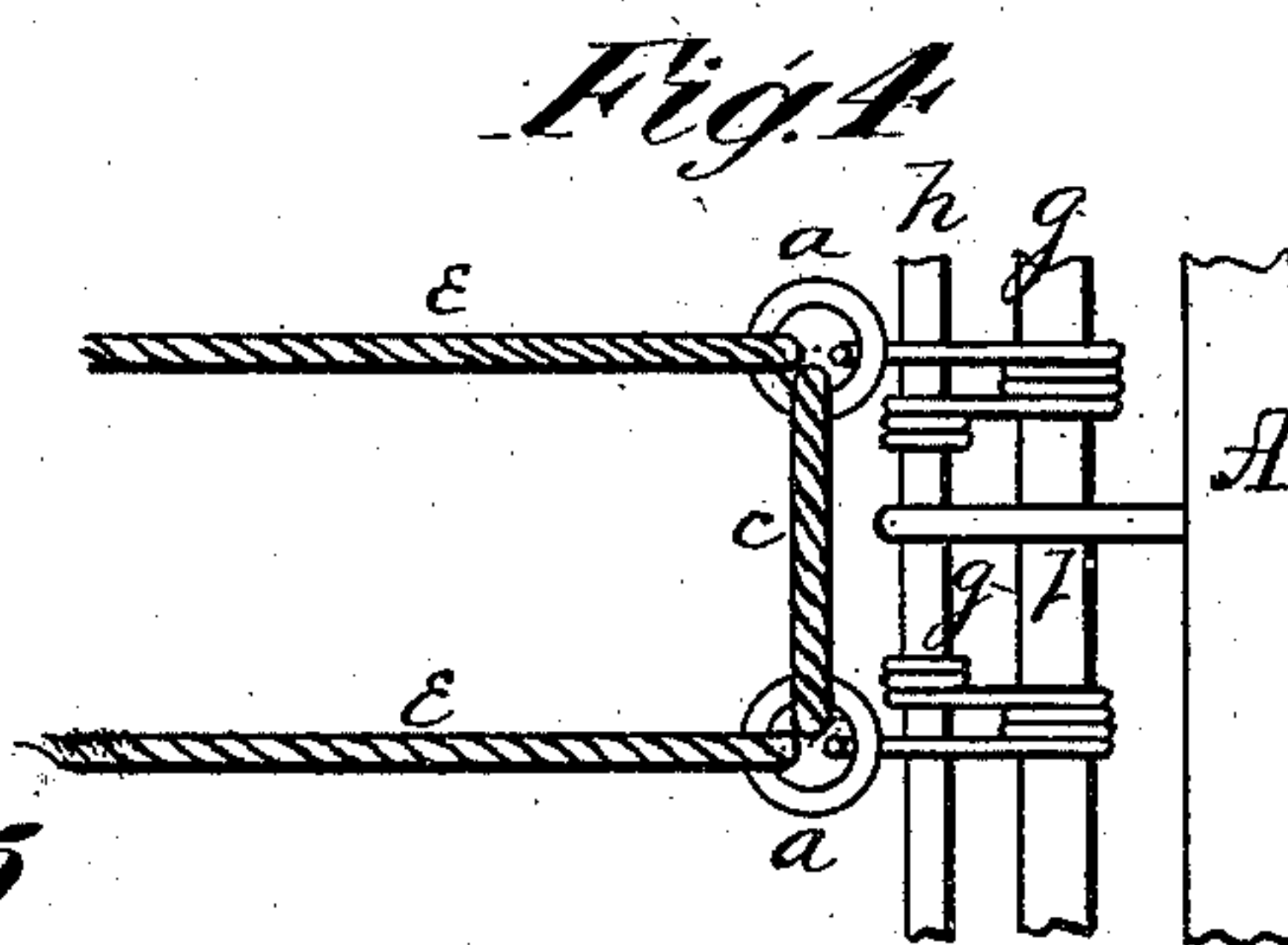
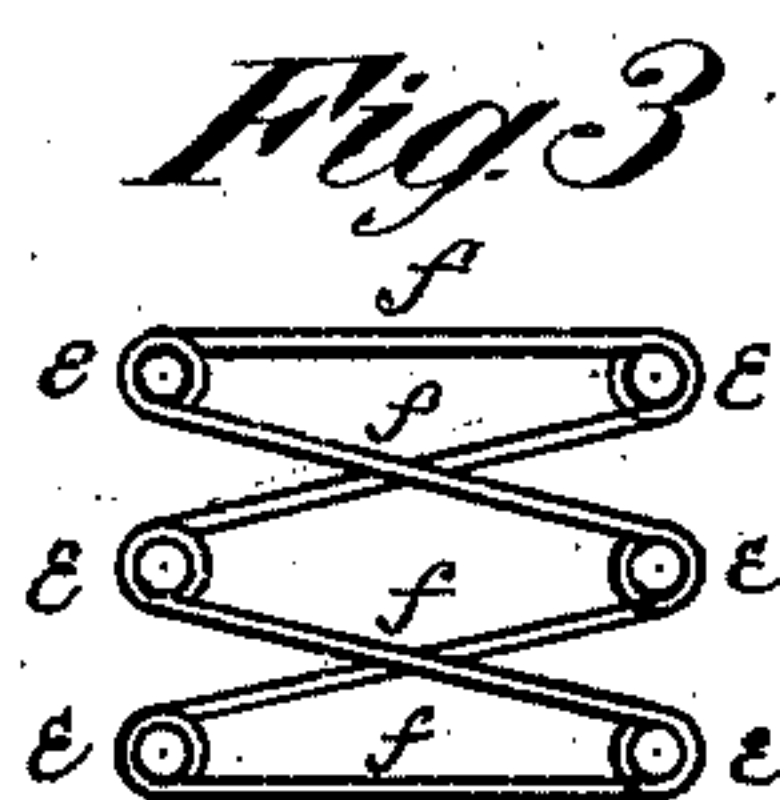
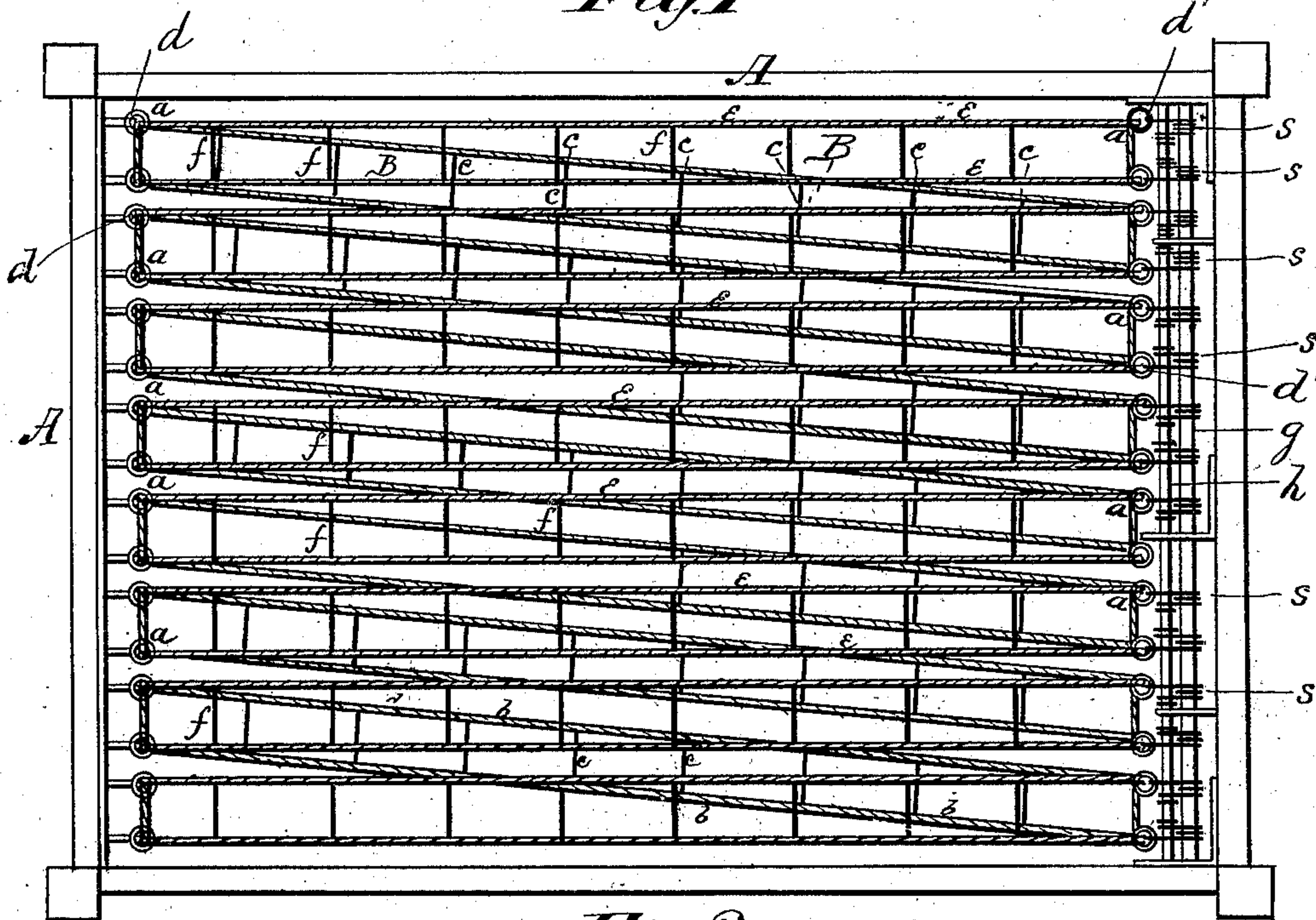


J. G. KING.
Combined Fire-Escape and Spring Bed-Bottom.

No. 198,848.

Patented Jan. 1, 1878.



Witnesses

J. A. Pollock.
G. Smith

John G. King

Inventor.

By Connolly Bros & W. Tighe

Attorneys.

UNITED STATES PATENT OFFICE.

JOHN G. KING, OF APOLLO, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO S. M. JACKSON AND ANTHONY O. STIVESON, OF SAME PLACE.

IMPROVEMENT IN COMBINED FIRE-ESCAPE AND SPRING BED-BOTTOM.

Specification forming part of Letters Patent No. **198,848**, dated January 1, 1878; application filed August 30, 1877.

To all whom it may concern:

Be it known that I, JOHN G. KING, of Apollo, in the county of Armstrong and State of Pennsylvania, have invented certain new and useful Improvements in Combined Fire-Escape and Spring Bed-Bottom; 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 pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification, in which—

Figure 1 is a plan view. Fig. 2 is a longitudinal vertical section. Figs. 3 and 4 are details. Fig. 5 is a detail view.

This invention has relation to combined fire-escapes and spring bed-bottoms; and consists in the novel construction, combination, and arrangement of parts, as hereinafter described and claimed, the object being to provide a series of sections which, being doubled back and forth, and supported by a bedstead, constitute a spring-bottom, and which, when dismounted and unfolded or extended, will form a perfect fire-escape ladder.

The bed-bottom may be constructed with the bedstead, or it may be independent, in which latter event it would be built in a frame adapted to rest on the ordinary slats.

A designates either the bedstead or the frame described. The bed-bottom is made up of sections of wire ladder, joined together by eyes *a* or other means capable of permitting the required movement. The alternate sections are different. A plain section, B, consisting of twisted wire sides *b b*, crossed at intervals by wire or wood rounds *c*, is hooked at each end over hooks *d d'*, which pass through the eyes or rings *a*. The next section is made up of three pairs of parallel twisted wires, *e e*, having the rounds made of spring-wires *f*, fitted in the manner shown in Fig. 3, so that the three pairs of wires *e e* are held apart; but being brought together at the ends, they form a double-arched slat, as it were, which constitutes the spring portion of the bed-bottom. This is likewise brought over hooks *d d'* at the ends; and so on, every alternate ladder-section being of the elastic three-pair form,

the plain sections being so laid in position as that they are undermost, and form a platform or support for the spring-sections.

The novel construction of the alternate sections forms a simple and substantial spring-bottom, when all are side by side, and their bowed form gives a rise at the middle, so that the bed itself will be as comfortable as possible, and also allows of a neat and slight make-up of the bed-clothes. The mere form of connection of the sections is immaterial, as many forms can be suggested, the only essential being capability of doubling the sections together.

To increase the elasticity of the bottom, I form the hooks *d'* at one end into coiled springs *s*, which pass several times around the cross-rod *g*, and end up on a second rod, *h*, as shown. This also effects a greater facility in attaching and detaching the sections and frame.

The bowed form of the alternate sections, when extended to form the escape-ladder, serves to keep the ladder out from the walls of the building, and facilitates descent.

The end rounds of the sections may be formed of the sides by simply continuing them across at the ends. Each section is about the length of the bed, and as I propose to use altogether about thirteen sections, a full-sized bed-bottom would furnish almost eighty feet of ladder.

When required for use, nothing is required but to pull the sections off the hooks, and lower them out of the window as fast as detached, the last section being either permanently attached to the bed or frame, or otherwise to any object heavy enough to bear the pressure.

It is not absolutely essential that the sides of the sections should be of twisted wire, for they may be made of wood or other material, if desired.

With cheapness and simplicity, it forms an admirable spring bed-bottom, which may be, by even a child, instantly transformed into a light but substantial fire-escape ladder. If required, all the sections may be bowed to form springs; but I prefer the alternate form as giving the best results.

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

1. A combined fire-escape and spring bed-bottom, composed of parallel sections consisting of bars in pairs, connected or adapted to be connected together, said pairs of bars being, respectively, connected by cross-bars, either rigid or elastic, substantially as specified.

2. In a combined fire-escape and bed-bottom, the spring-section consisting of three

pairs of parallel sides, *ee*, connected or brought together at the ends, and bowed outwardly throughout their length by means of the transverse springs *f*, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand this 11th day of August, 1877.

JOHN G. KING.

Witnesses:

I. FREETLY,

JOHN F. WHITWORTH.