

J. G. RAHNER.
Spring-Bed and Fire-Escape.

No. 199,861.

Patented Jan. 29, 1878.

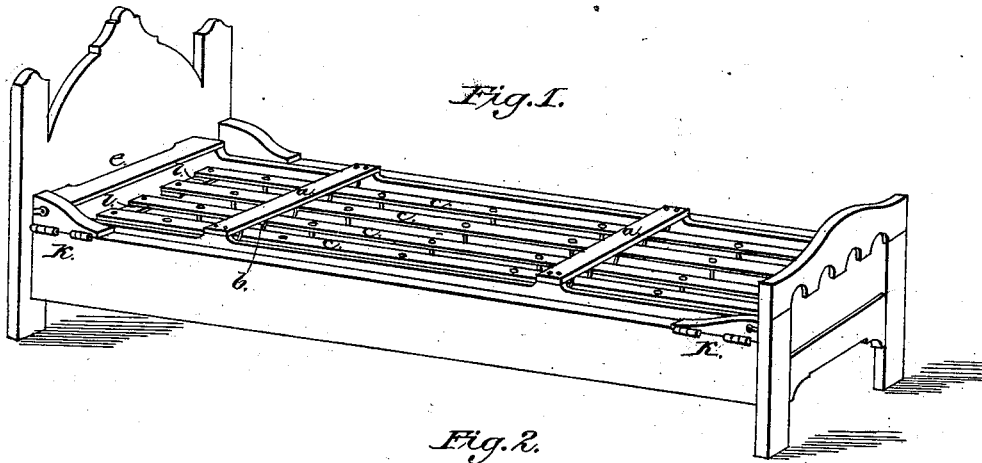


Fig. 1.

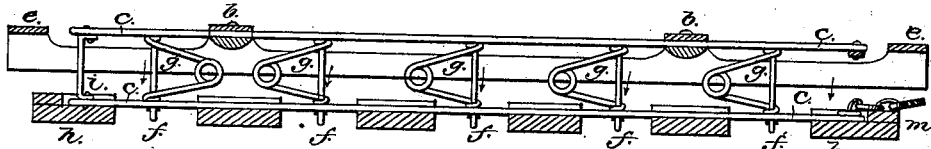


Fig. 2.

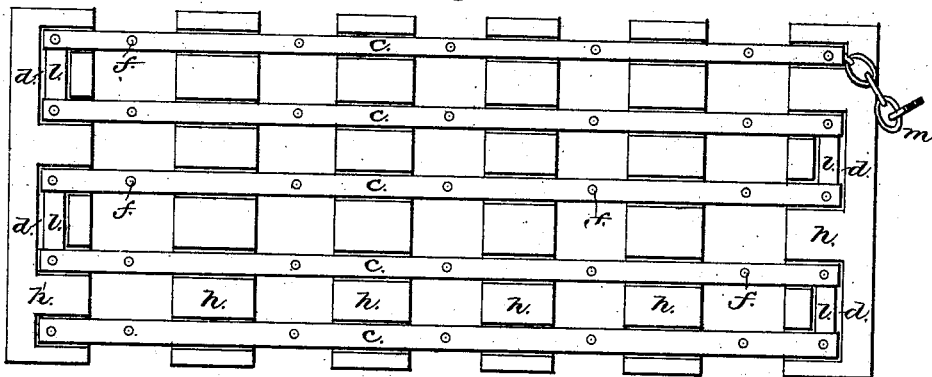
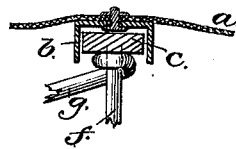
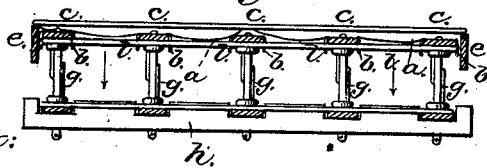


Fig. 3.

Fig. 4.



Attest:

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IMPROVEMENT IN SPRING-BED AND FIRE-ESCAPE.

Specification forming part of Letters Patent No. **199,861**, dated January 29, 1878; application filed August 27, 1877.

To all whom it may concern:

Be it known that I, JOHN GEORGE RAHNER, of Portland, in the county of Multnomah, in the State of Oregon, have invented an Improved Spring-Mattress and Fire-Escape, of which the following is a specification:

In this invention the object to be attained is the double one of having a really good spring-bed and a ready means of escape from a building endangered by fire or otherwise.

My invention consists of the arrangement shown in the drawings—

Figure 1 being a perspective view of the whole in its proper position in the bedstead. Fig. 2 is a longitudinal section through the middle of its length. Fig. 3 is a plan as seen from above; Fig. 4, an enlarged section of one of the retaining top-clamps *b*; and Fig 5, an end view.

In Fig. 2 the arrangement of springs is shown, and the relation of the parts.

On the top of the strips of metal, making the slats on which the bedding is placed, are two straps of leather or webbing, *a*, the ends of which are secured to a frame, *e*, (see Fig. 1—not shown in Fig. 2,) at the sides of the same. To this webbing or pair of straps are clamps *b*, fastened by rivets in such a way that they will fall loosely across the slats *c*, for the purpose of keeping them from turning over when in use as a bed-slat—*i. e.*, either to one or the other side—as they are long, and such an arrangement is necessary.

The springs *g*, Fig. 2, are made into a helix in the middle, and the ends bent around the rods *f*, which form the ladder-rundles when in use as a ladder, said ends pressing apart the slats *c*.

The upper ends of these rods *f* are made so that they can be firmly riveted into the upper tier of slats, and the under end is made long enough to allow the full recoil of the springs; and small washers or pins are put on the under ends to keep them from coming out of the holes made in the under tier of slats, in which they freely slide.

In addition to the metal slats *c* above mentioned, there are also a tier of wooden slats, which run across the slats *c* on the under side and support them. The ends of these cross-slats *h* rest in bearings in the bed-rails simi-

lar to those commonly used for mattresses or beds, and differ from these only in having small gains cut in them crosswise, for receiving the under tier of metal slats *c* and keeping these from sliding, and in this way perform the same office as the clamps *b* secured to the straps *a*.

To use the mattress as a ladder or escape, the frame *e* and bedding are removed from the bedstead, and by so doing the mattress is made bare, and is now ready to be taken out of the bedstead and used as a ladder, the rods *f* forming the rungs.

In the plan, Fig. 2, the slats are seen as joined on the alternate ends by links *l*. One corner of the mattress is secured to the bedstead by means of the eyebolt *m* and some links of chain. The other or free end is lifted out of the bedstead and thrown out of the window, and forms a convenient and safe ladder for descent in case of need.

The metal slats are made of band-iron, galvanized, or strips of lacquered or japanned iron or brass. The rungs *f* are of round iron similarly treated, and the springs made in the customary manner from spring-wire.

The whole mattress is made somewhat smaller than the bedstead in length and width.

To facilitate the removal from the bed-bottom, the foot and head ends of a bedstead are made in such way that the scroll usually put on the upper edge of the rails may be hung on a hinge, *k*, and fastened in place by a latch falling into the head or foot board or post.

I claim—

1. The combination of slats *c* and rods *f*, and springs adapted to support the upper slats upon the lower ones, the sections thereby constituted being arranged, as shown, upon the bars of the bedstead and joined together by suitable connections *l*, substantially as and for the purpose set forth.

2. In combination with the above-described connected sections, provided at one end with the means of attachment to a fixed object, the grooved supporting-bars *h* and clamps *l*, as described.

JOHN GEORGE RAHNER.

In presence of—

G. BRASEN,
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