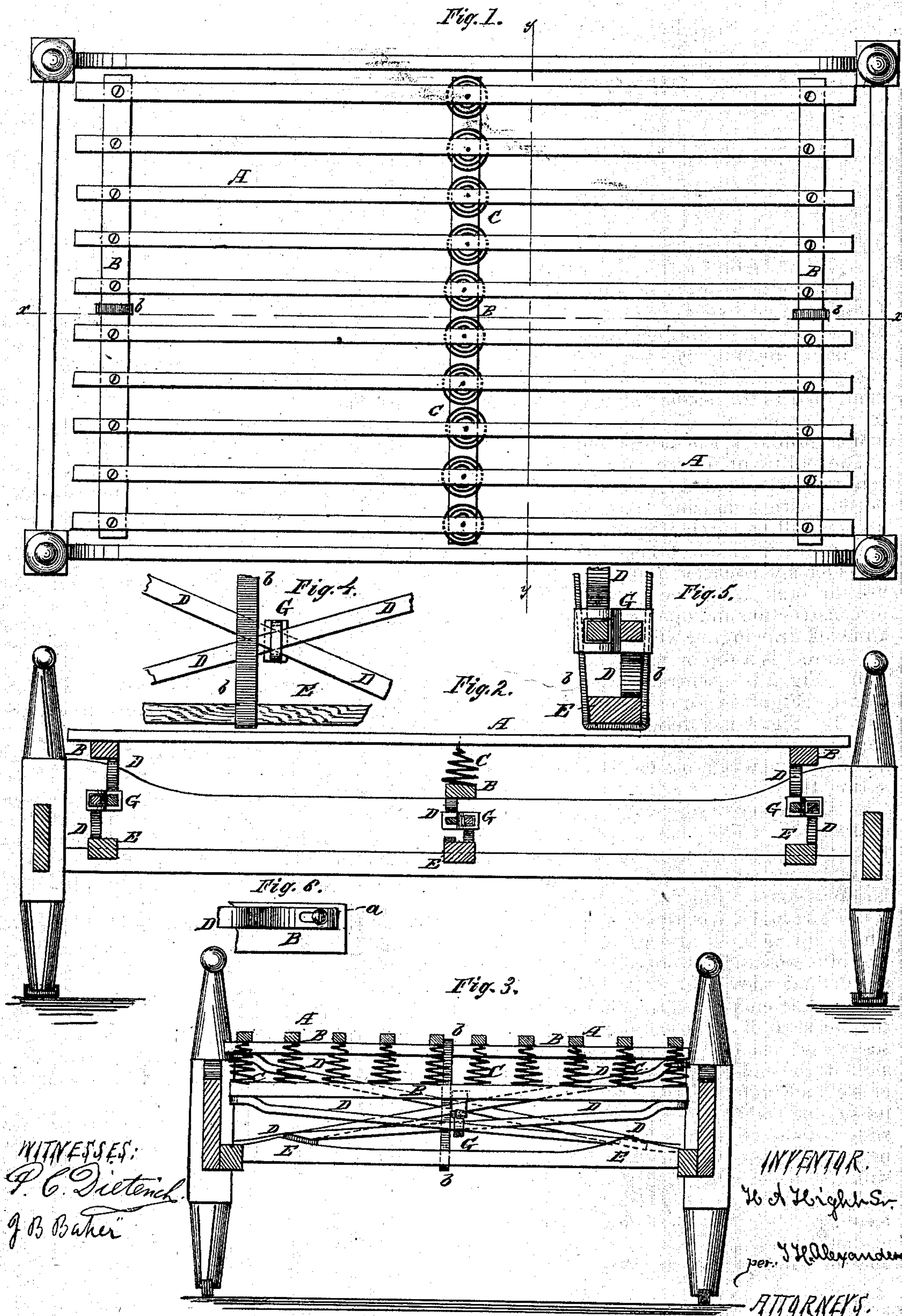


H. A. HIGHT, Sr.
Spring Bed-Bottoms.

No. 146,072.

Patented Dec. 30, 1873.



WITNESSES:
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UNITED STATES PATENT OFFICE.

HENRY A. HIGHT, SR., OF FORT WAYNE, INDIANA.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. 146,072, dated December 30, 1873; application filed December 3, 1873.

To all whom it may concern:

Be it known that I, H. A. HIGHT, Sr., of Fort Wayne, in the county of Allen and State of Indiana, have invented certain new and useful Improvements in Spring Bed-Bottoms; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a spring bed-bottom with equalizing spring-bars and coupling, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a top or plan view of my invention. Fig. 2 is a central section on line *x x*, Fig. 1. Fig. 3 is a cross-section on line *y y*, Fig. 1. Fig. 4 is a detail view of springs D. Fig. 5 is a detail section of springs D. Fig. 6 is a detail view of cross-bar B, showing slot in spring D.

A A represent a series of slats, secured near each end to a cross-bar, B, and supported in the center, each upon a spiral spring, C, and these springs are all secured on top of a similar cross-bar. Under each of the cross-bars B are arranged two steel spring-bars, D D. These spring-bars are fastened, one at each end of a cross-slat or cross-bar, E, in the bedstead, and then they cross each other, and their other ends are attached to the ends of the cross-bar B of the bed-bottom by means of screws or headed pins *a a* passing through slots in the ends of the spring-bars. One end of each spring-bar is thus rigidly attached to its support, while the other end is allowed to slide a distance equal to the length of the slot in its end, thereby allowing the bed-bottom to sink vertically downward. Each pair or set of spring-bars D D is coupled together by means of a coupling, G, which consists simply of a double link, or a link with two openings, one for each spring-bar. This coupling G is

rigidly attached to one of the spring-bars, while the other bar passes loosely through it; hence when either of the bars is moved, either up or down, the other bar must necessarily move to correspond. For this reason, whatever weight may be placed on either side of the bed-bottom, the whole will settle down perfectly even and level, the spring-bars D D, with their couplings forming a complete equalizing attachment for the bed-bottom. *b b* represent rubber bands, one at each end of the bedstead, connecting the cross-bars B and E, and preventing the bed-bottom from moving up too far.

The equalizing-bars D D, with their couplings G, may be applied to any bed-bottom of any construction; and may also be applied to any other work, or for any other purpose, where an easy and gentle elastic action is desired.

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

1. The equalizing spring-bars D D, rigidly fastened at one end to a support, their other ends sliding on the part supported by them, and the bar connected by a coupling, G, which is rigidly secured to one and moving loosely upon the other bar, all arranged to operate substantially as and for the purposes herein set forth.

2. The equalizing spring-bars D D in combination with the coupling G and bed-bottom A B, all arranged substantially as and for the purposes herein set forth.

3. A spring bed-bottom composed of the bottom A B, spiral springs C C, spring-bars D D, and links or couplings G G, all constructed substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

HENRY A. HIGHT, SR.

Witnesses:

JOHN E. ROBBINS,
STEPHEN CHASE.