S. H. REEVES.

SPRING BED BOTTOM.

No. 183,705. Patented Oct. 24, 1876.

Fig. 1.

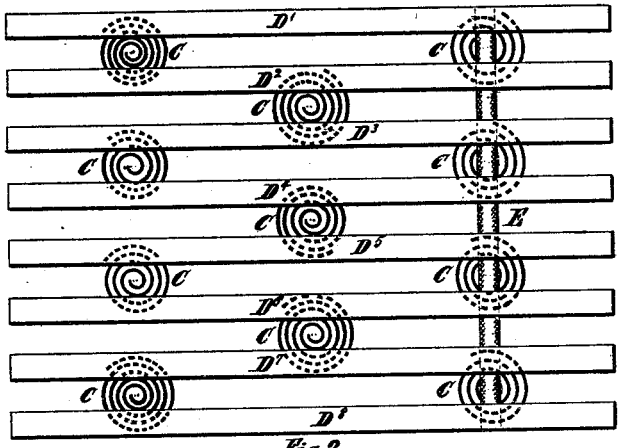

Fig. 2.

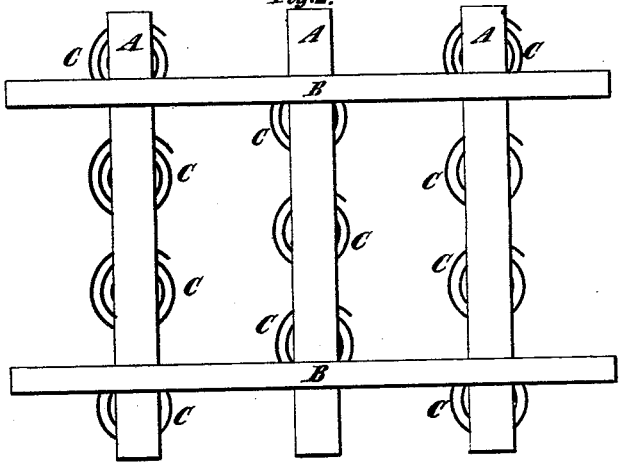

Fig. 3.

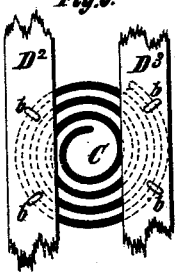

Fig. 4.

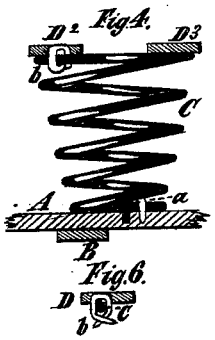

Fig. 5.

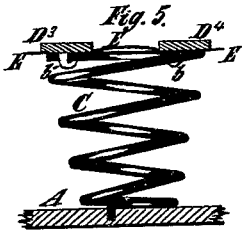

Fig. 6.

Witnesses:

E. Hugendobler

Thomas E. Birch.

Saml. H. Reeves.

UNITED STATES PATENT OFFICE.

SAMUEL H. REEVES, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN SPRING BED-BOTTOMS.

Specification forming part of Letters Patent No. **183,705**, dated October 24, 1876; application filed March 8, 1876.

To all whom it may concern:

Be it known that I, SAMUEL H. REEVES, of Brooklyn, county of Kings, and State of New York, have invented a new and Improved Spring Bed-Bottom, of which the following is a description:

My invention consists in the combination of a bottom frame-work, spiral or helical springs secured thereto, and arranged in transverse rows, so that those forming one row are opposite the spaces in the adjacent rows; a resting-surface, composed of a series of independent longitudinal slats, secured alternately at different sides to the top coils of springs in alternate rows; and flexible cross-stays, secured to the outside longitudinal slats by rivets, and clamped against the intermediate longitudinal slats by the springs themselves, whereby I produce a very superior bed-bottom, which is so cheap in its construction as to bring it within the reach of the poorest classes.

In the accompanying drawing, Figure 1 is a plan of the top or resting surface and springs of a spring bed-bottom made according to my invention. Fig. 2 is an inverted plan of the bottom frame-work and springs of such spring bed-bottom. Fig. 3 is a view on a larger scale of a spring and a portion of two of the slats constituting the top or resting surface thereof. Fig. 4 is a transverse section, also on a larger scale, of a portion of the bed-bottom, illustrating, in detail, the manner in which each spring supports portions of two adjacent slats constituting part of the top or resting surface. Fig. 5 is a similar view, illustrating the manner of connecting a cross strap or slat to the slats of the top or resting surface; and Fig. 6 is a detailed view, showing the method of fastening the springs to the slats of the lying or resting surface.

Similar letters of reference designate corresponding parts in all the figures.

A B designate a bottom frame-work, which is very desirable, because of its cheapness. It consists of a number of cross-slats, A, and a number of longitudinal slats, B, connecting the former together. C designates a series of springs, of spiral form, arranged in parallel rows extending crosswise of the bottom frame-work A B, and secured to the slats A thereof. They are arranged in parallel rows, one near each end of such frame-work, and one about the middle thereof, and the springs are so disposed that those of one row are opposite the spaces or intervals between the springs of adjacent rows. (See Fig. 1.) Instead of spiral springs, I may use helical or the so-called "hour-glass" springs. When, however, as in the spring bed-bottom represented, spiral springs are used, they are arranged with the large ends or coils uppermost. The springs may be secured to the bottom frame-work by driving their lower ends into the slats A A, and fastening their bottom coils thereto by staples *a*. D^1 D^2 D^3 D^4 D^5 D^6 D^7 D^8 designate a series of slats, which constitute the top or resting surface of the spring bed-bottom. They are arranged side by side lengthwise of the spring bed-bottom, and are secured directly to the top coils of the springs and not to the cross-slats supported on such springs. They may be thus connected by staples *b* driven through them, and clasped or clinched around the top coils of the springs, as this means possesses the advantages of simplicity, cheapness, and effectiveness.

It will be seen that, owing to the difference in arrangement of springs in the several rows, the slats are alternately connected at the ends by the end rows of springs, and at the middle by the middle row of springs; or, in other words, slats D^1 D^2 are connected by springs in the end rows, D^2 D^3 by one of the springs in the middle row, D^3 D^4 by springs in the end row, D^4 D^5 by a spring in the middle row, D^5 D^6 by springs in the end row, D^6 D^7 by a spring in the middle row, and D^7 D^8 by springs in the end row.

E E designate flexible cross-stays, secured at the ends by rivets to the outer longitudinal slats, and clamped by the upper coils of the springs to the intermediate longitudinal slats. (See Fig. 5.) Thus they are secured in place with very few rivets, and the bed-bottom is materially cheapened.

By this peculiar arrangement of the springs, and mode of securing the tie-slats of the resting-surface, I am enabled to make a very superior spring bed-bottom, with a very few springs and very few rivets, and whose rest-

ing-surface is free to yield at all points, and therefore to afford the greatest possible comfort to occupants.

It will thus be obvious that while I produce an improved style of spring bed-bottom, I reduce the cost of this very desirable article, so that even the poorest persons can purchase it, and this I contend is of great importance, as the universal adoption of spring bed-bottoms will promote the health of the community at large, because they are much cleaner than a secondary mattress or paillasse.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of a bottom frame-work, spiral or helical springs secured thereto, and arranged in transverse rows, so that those forming one row are opposite the spaces in the adjacent rows, a resting-surface composed of a series of independent longitudinal slats, secured alternately at different sides to the top coils of springs in alternate rows, and flexible cross-stays secured to the outside longitudinal slats by rivets, and clamped against the intermediate longitudinal slats by the springs themselves, substantially as and for the purpose herein set forth.

SAML. H. REEVES.

In presence of—

P. L. VAN DER VEER,
E. HUGENTOBLER,
THOMAS E. BIRCH.