R. STILWELL.

Spring Bed Bottom.

No. 238,476. Patented March 1, 1881.

Fig. 1.

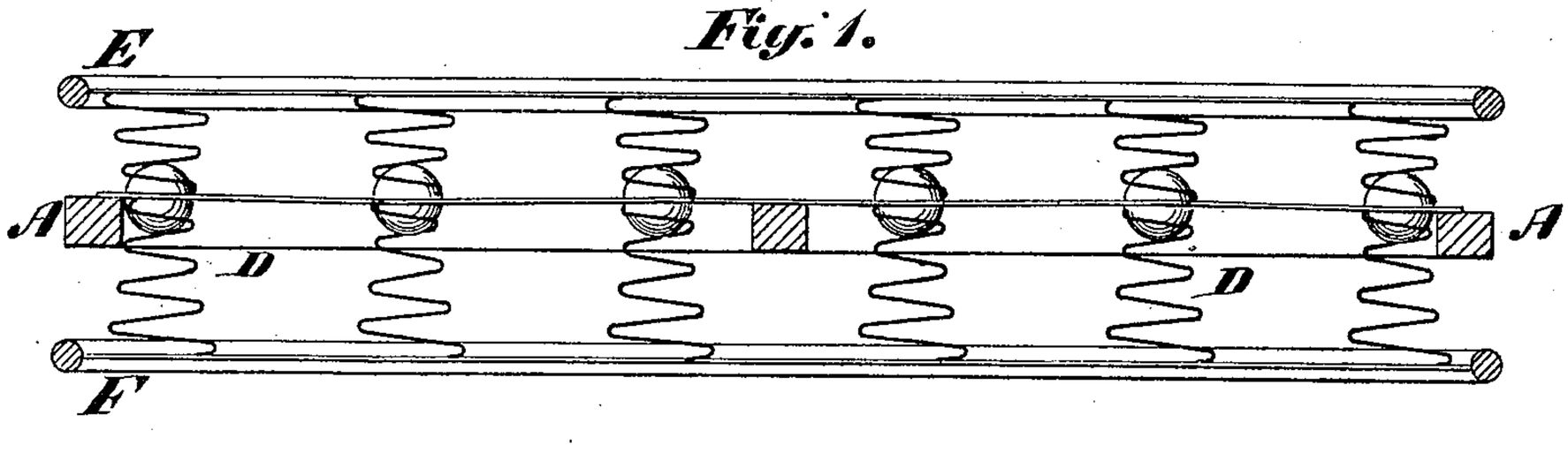


Fig. 2.

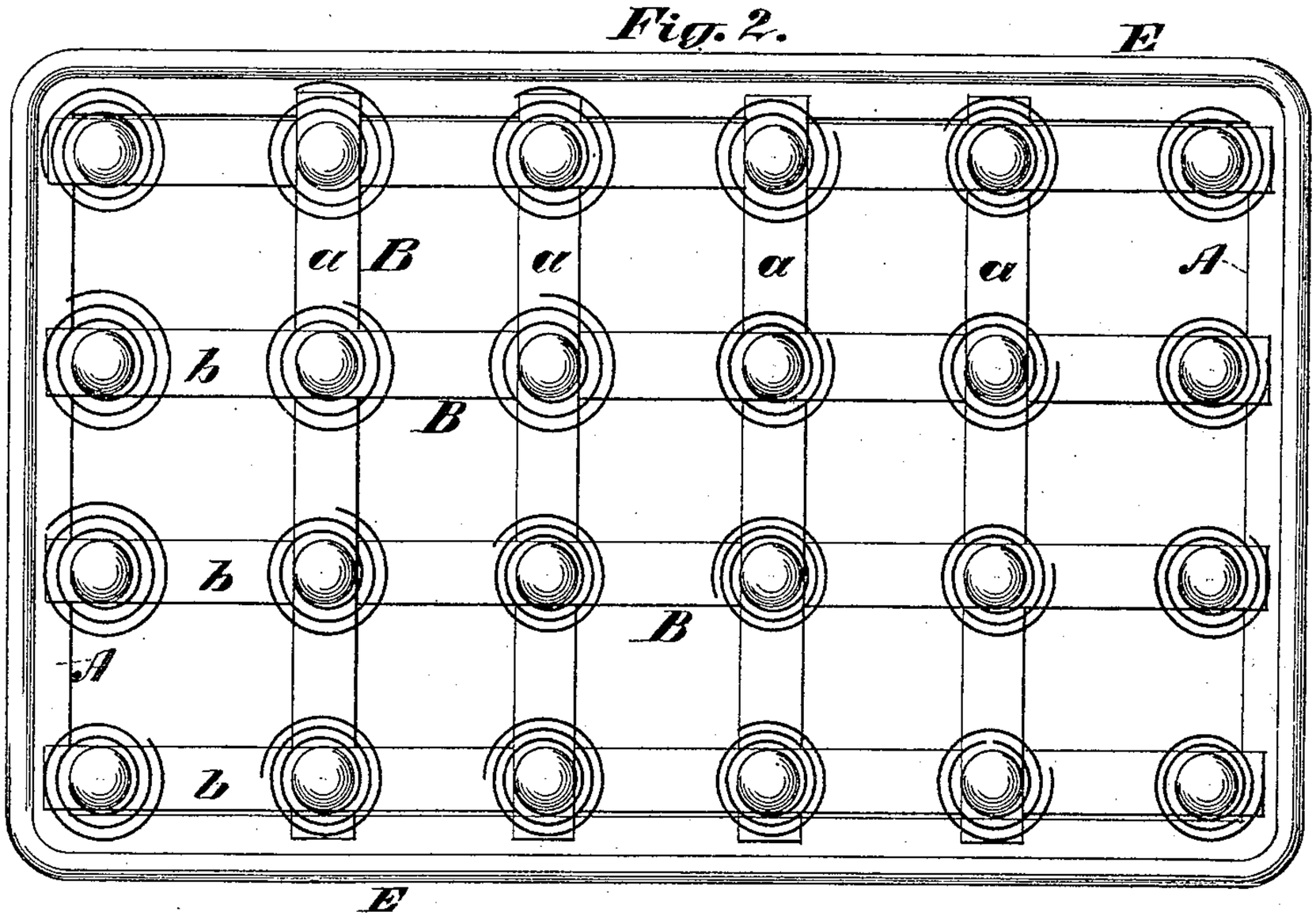


Fig. 3.

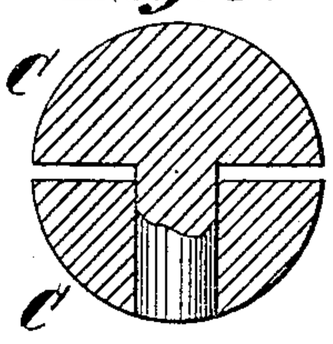


Fig. 4.

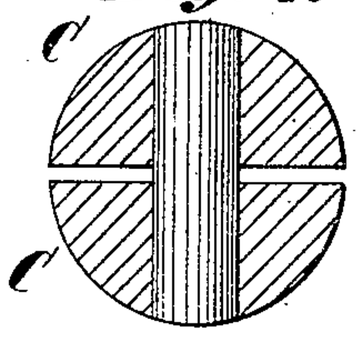
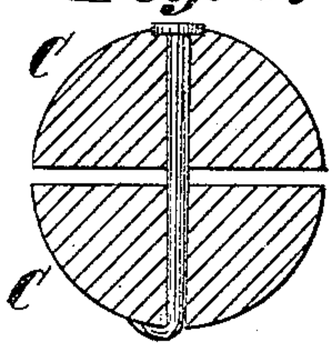


Fig. 5.



Witnesses.

H. T. Parker.

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UNITED STATES PATENT OFFICE.

RICKASON STILWELL, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENT, TO EMELINE C. STILWELL, OF SAME PLACE.

SPRING BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 238,476, dated March 1, 1881.

Application filed November 4, 1879.

To all whom it may concern:

Be it known that I, RICKASON STILWELL, of the city, county, and State of New York, have invented certain Improvements in Spring Bed-Bottoms, of which the following is a specification.

This invention relates to spring-beds in which are used the ordinary double-bell-shaped wire springs, connected at their centers by bands of flexible material, in order to support them in their upright position without interference with their elasticity in a vertical direction.

The invention comprises the combination, in a spring-bed, of clamping disks or blocks of hemispherical form, placed on opposite sides of the webbing which connects and braces the springs, with the hemispherical surface of the blocks fitted into the adjacent coils of the spring, and by supporting said coils and retaining them at their normal distance apart the said blocks serve to prevent the crushing together of the central coils, by which said combination a strength, permanence, and durability are given to the bed-bottom not usually attained in such articles, and without any material increase in the cost.

Figure 1 is a vertical longitudinal section of a spring bed-bottom embracing my said invention, and Fig. 2 is a plan view of the same. Figs. 3, 4, and 5 are sectional views, on a larger scale, representing the clamping disks or blocks, which form one of the elements of each of the combinations included in my said invention.

A is what may be termed a "central frame," and is of the usual rectangular form, made of wood or equivalent stiff or rigid material. Stretching from side to side of this frame is a series, *a*, of parallel strips of webbing, B, and in like manner stretching from end to end of said frame is another series, *b*, of such webbing B, the two series intersecting each other at right angles, as represented in Fig. 2. At each intersection or crossing of the strips *a b* is placed a clamping device, composed of two disks or blocks, C, of hemispherical shape, as represented in Figs. 3, 4, and 5, one of the disks C being placed above and the other below each crossing of the strips, and the two disks or blocks at each of said crossings being firmly pinned or otherwise secured together, so as to tightly gripe the two crossed portions of the strip between them. The two disks at each intersection aforesaid may be fastened together either by a nail, as shown in Fig. 5, or by a wooden pin driven through a suitable bore or opening provided in the disks or blocks, as shown in Fig. 4, or by a dowel formed on one of said disks or blocks, and fitted to a suitable hole in the other, the object of the clamping devices thus formed being to tightly gripe the intersecting portions of the two series of strips together with a broad bearing, which will retain the strips in the requisite relation with each other without danger of tearing, there being, moreover, this further object in view, that the external surfaces of the two disks or blocks, clamped together as just described, shall present a spherical or spheroidal contour, in order to give support to the central part of the springs D when the said springs are vertically compressed. These springs, as represented in Fig. 1, are of the variety very commonly employed in spring bed-bottoms, and which have, so to speak, a double-bell shape, their transverse diameter being least at the center. The springs are placed each with its two central coils, one resting on the convex upper surface of the uppermost disk at one of the intersections aforesaid, and the other of said two central coils resting against the corresponding convex surface of the undermost of the two disks. The support thus given to the central portion of the spring not only retains it in proper position against vertical pressure, but also against any tendency to lateral displacement, the clamping devices, composed of the disks or blocks C, the strips *a b* of the webbing B, and the springs themselves, all acting in concert to mutually support and assist each other.

E is an upper frame, of rattan or any other suitable partially-flexible material, placed around the upper edge of the entire apparatus, and coincident in position with the central frame, A, the upper ends of the springs D being lashed by twines to each other and to the frame E, in order to prevent them from being sprung laterally during the use of the bed-bottom.

F is a lower frame, which bears the same re-

lation to the lower ends of the springs—in other words, to the under side of the bed-bottom—that the frame E does to the upper thereof.

Inasmuch as the method of lashing in position the upper and lower ends of the springs D is that in common use in the trade, it requires no special description or delineation here. It is to be observed, however, that, by the use of the central frame, A, and the upper and lower frames, E F, the apparatus, as a whole, is made complete within itself, and thereby in practice enhances the utility of the more important combination—namely, the clamping devices placed in relation with the springs and the webbing, as hereinbefore explained.

What I claim as my invention is—

In a spring-bed, the combination of the hemispherical clamping disks or blocks C with the webbing B and the double-bell-shaped springs D, the aforesaid hemispherical disks or blocks being arranged to press into and sustain the central coils of the springs, all substantially as and for the purpose herein set forth.

RICKASON STILWELL.

Witnesses:
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