

M. BRIEL & J. G. KRIEGER.

BED-BOTTOM.

No. 175,917.

Patented April 11, 1876.

Fig. 1.

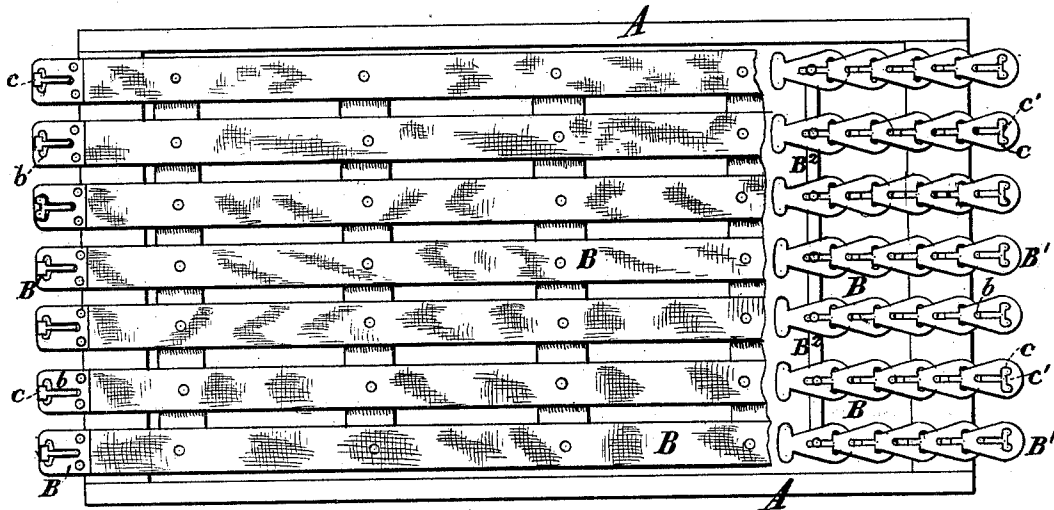


Fig. 2.

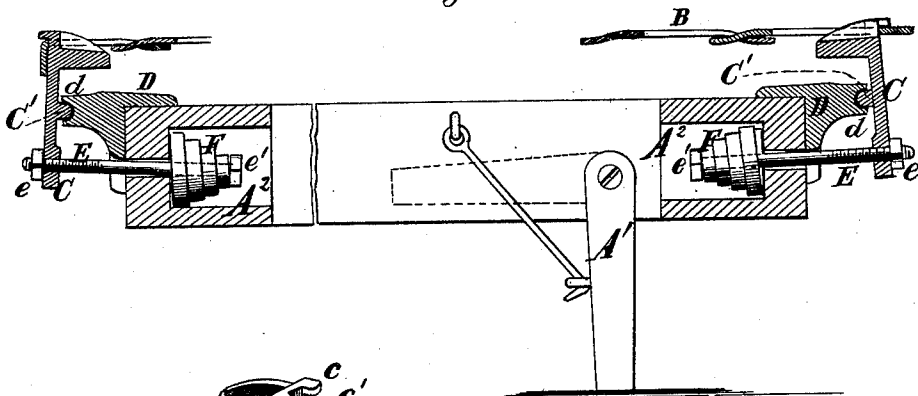


Fig. 3.

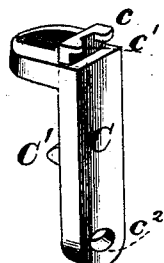
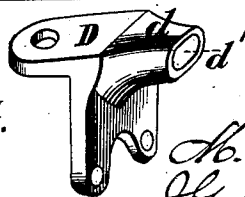


Fig. 4.



Witnesses.
A. Ruppert.
D. R. Cowe

M. Briel
J. G. Krieger
Inventor.
by P. E. J. Bils
Att'y

UNITED STATES PATENT OFFICE.

MICHAEL BRIEL AND JOHN G. KRIEGER, OF WASHINGTON, D. C.

IMPROVEMENT IN BED-BOTTOMS.

Specification forming part of Letters Patent No. **175,917**, dated April 11, 1876; application filed August 26, 1875.

To all whom it may concern :

Be it known that we, MICHAEL BRIEL and JOHN G. KRIEGER, both of Washington, in the District of Columbia, have invented a certain Improvement in Bed-Bottoms, of which the following is a specification :

This invention is the result of practical experience in manufacturing bed-bottoms under United States Letters Patent No. 146,227, granted to us on the 6th day of January, A. D. 1874. It was found that the mode there shown of connecting the bands and springs to the frame of the bed-bottom, and the manner of adjusting the tension of the bands, was somewhat defective, for reasons it is not necessary to state here. We have now contrived modes of connection and adjustment of the bands and springs which we have ascertained, by practical tests, to remedy the defects of the construction shown in our said former patent.

Our improvement consists in attaching the bands separately, as heretofore, to afford independent adjustment, to the upper arms of vertically-disposed levers, fulcrumed on brackets secured to the cross-bars of the frame, the lower arms of said levers being held interlocked by adjustable nuts with screw-threaded rods, which project horizontally from internal sockets in the cross-bars of the frame, and are drawn upon by the tension-springs seated in said sockets.

In the annexed drawings, Figure 1 is a plan view of a bed-bottom embodying our improvement, showing two different kinds of bands, either of which may be used in the construction of the web. Figs. 2, 3, and 4 are detail views illustrating the manner of connecting the bands and springs to each other and to the frame, as well as the construction of the parts constituting the coupling.

The same letters of reference are used in all the figures in the designation of identical parts.

The frame A, made of rectangular form and adapted to be placed upon cleats on the interior sides of the side-boards of a bedstead, is preferably provided with folding legs A¹, so that the bed-bottom can be used as a cot when the occasion requires it. The web B may con-

sist of textile bands, or of such articulated metallic bands as are described in our aforesaid patent, or of bands of any other preferred material and construction. Each band terminates at its ends in a flat metallic plate, B', provided with a T-shaped slot, *b*, by means of which it can be hooked onto a correspondingly-shaped projection, *c*, on the top end of a lever, C, the transverse head of said projection being undercut, as at *c'*, so that it can in part lap over the solid part of plate B' when interlocked therewith, and prevent a too easy detachment of the latter. The several bands are thus hooked to the upper arms of a corresponding number of levers, C, which are respectively fulcrumed on the horizontally-projecting arms *d* of the brackets D, which are firmly secured to the exterior upper angle of the respective cross-bars of the frame. The levers are each provided with a transverse projection, C', somewhat rounded at the edge and fitting snugly a socket, *d'*, in the arm *d* of bracket D, the projection and socket being so fitted together that the lever may oscillate freely in the direction of the band, and also be permitted slight lateral oscillation, so as to readily accommodate itself to all motions of the band. The brackets are shown as separate pieces of cast metal, but each series may be cast in a single bar, if preferred. The lower arm of the levers has a slightly elongated eye, *e*², through which the end of a rod, E, passes, which carries a nut, *e*, for the twofold purpose of confining the lever and of adjusting the same when it becomes necessary to change the tension of the band attached to it. The rods E project from sockets A² on the interior sides of the cross-beams of frame A, bearing with their large heads *e'* on the ends of springs F, through the coils of which they pass. The springs shown are of the volute form, but helical or other springs may be used in lieu of these. The construction we have described may be applied in the manufacture of lounges, sofas, and all kinds of spring-seats. Of course any required degree of tension may be given to the several bands of the web by simply adjusting the nuts *e*, which are readily accessible. Where the web is made up of articulated chains composed of interlocked links

of sheet metal, we prefer to transversely connect the several chains or bands by steel straps B², as shown.

We do not claim, broadly, connecting the bands of the web of a bed-bottom with a lever, by adjusting which the tension of such bands can be regulated, but in this particular confine ourselves to our special combination of elements.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. A bed-bottom, substantially such as described, in which the several bands of the web are separately attached to corresponding series of independently adjustable levers connected with tension-springs.

2. In a bed-bottom, such as described, the combination, with a band of the web, of independent lever C, rod E, adjusting-nut e, and spring F, substantially as and for the purpose specified.

In testimony whereof we have signed our names to the foregoing specification in the presence of two subscribing witnesses.

MICHAEL BRIEL.
JOHN G. KRIEGER.

Witnesses:

B. EDW. J. EILS,
E. L. SCHMIDT.