

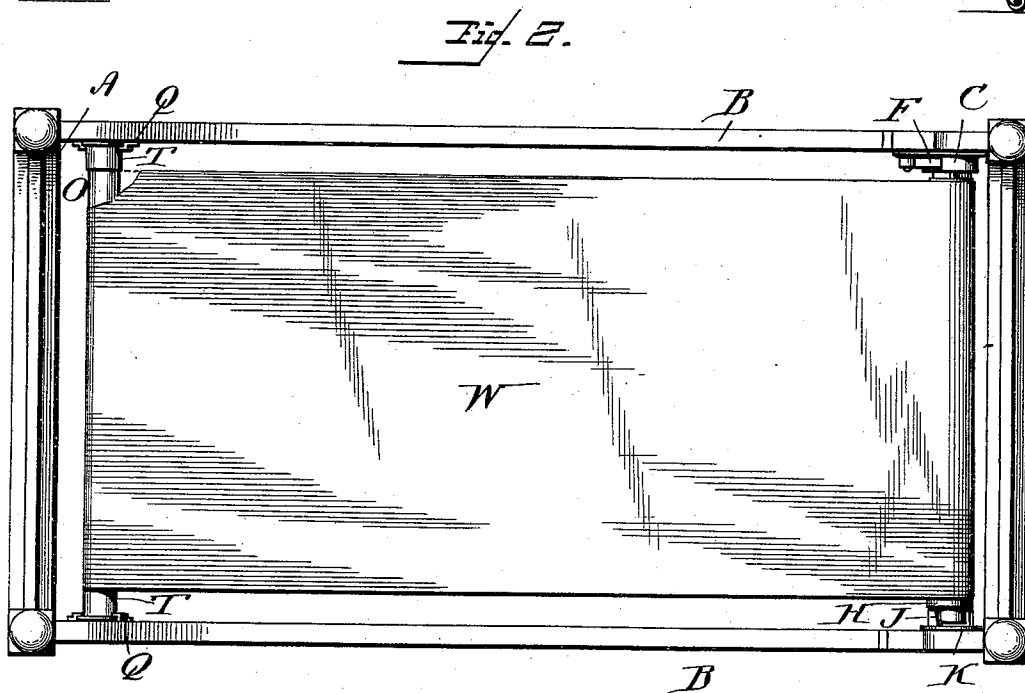
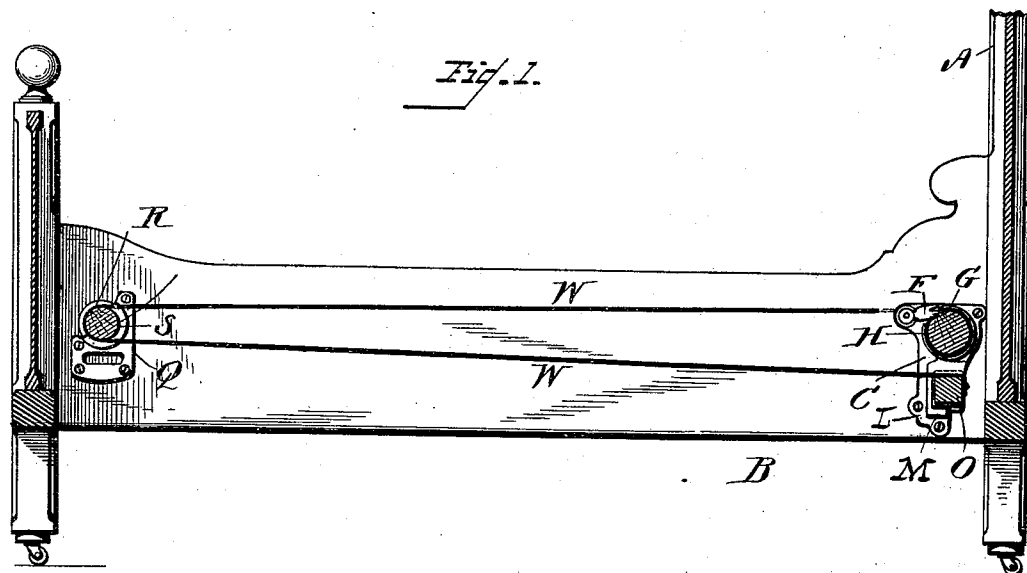
(No Model.)

2 Sheets—Sheet 1.

S. BERTENSHAW.  
BED BOTTOM.

No. 472,978.

Patented Apr. 19, 1892.



Witnesses  
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Inventor  
*Silas Bertenshaw*  
By his Attorney  
*W. H. Hudson*

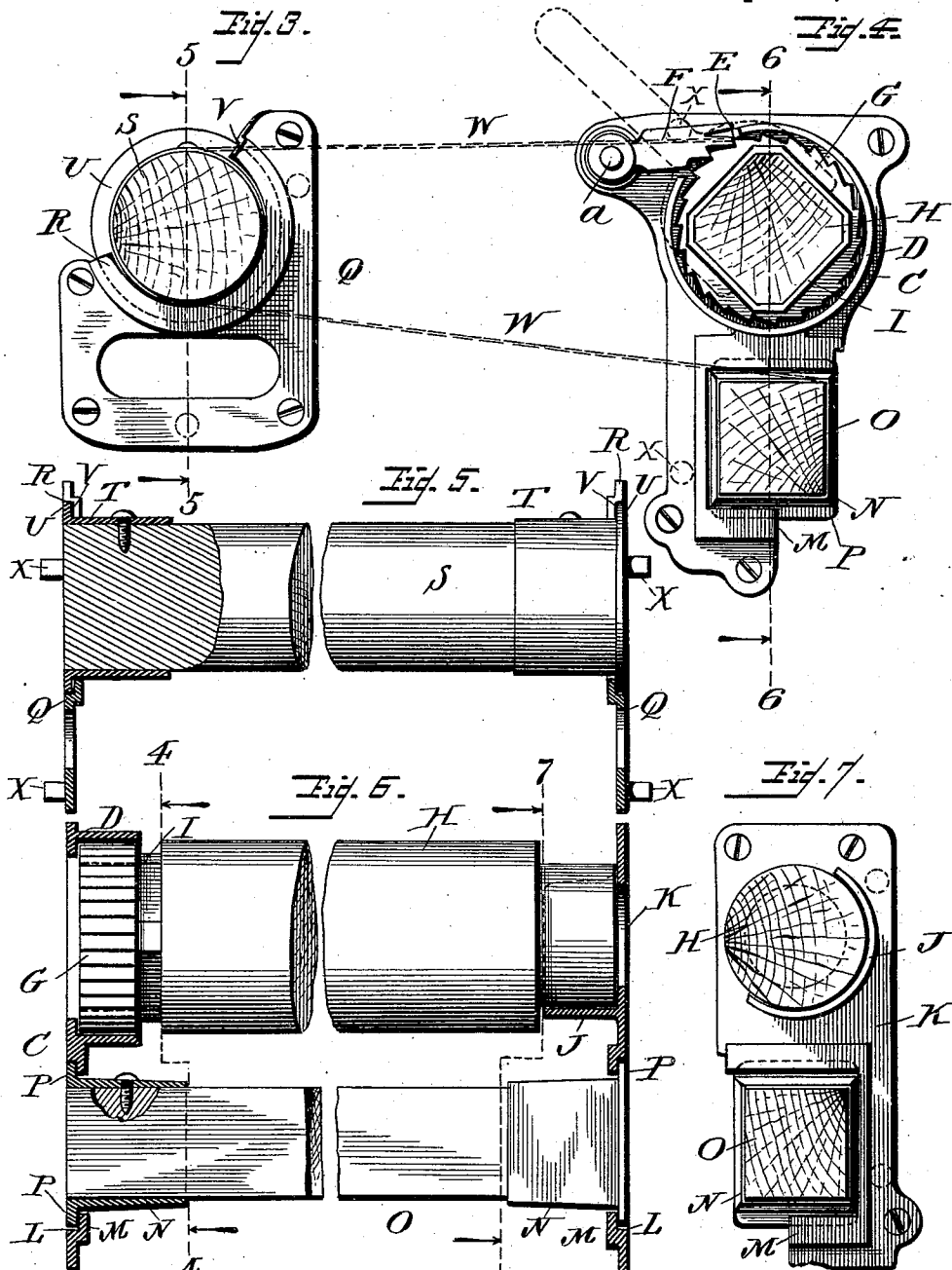
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2 Sheets—Sheet 2.

S. BERTENSHAW.  
BED BOTTOM.

No. 472,978.

Patented Apr. 19, 1892.



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# UNITED STATES PATENT OFFICE.

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## BED-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 472,978, dated April 19, 1892.

Application filed July 13, 1891. Serial No. 399,384. (No model.)

*To all whom it may concern:*

Be it known that I, SILAS BERTENSHAW, a citizen of the United States, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Bed Rests or Bottoms; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

My invention relates to that class of bed-bottoms in which a web of canvas or other suitable flexible material is attached at one end to a rod or other suitable fastening located at one end of the bed-frame and passed around a roller at the opposite end of the bed-frame and then connected to a second roller located at the end of the bed-frame where the first-referred-to rod or fastening device for the web is located, the web being wound around the second roller, so as to take up slack in the web and make the same taut.

This invention has for its objects to provide for slacking the tension on the web and the easy removal of the winding-roller and its easy replacement, when desired or necessary; also, to provide against the spreading apart of the sides of the bed-frame when the tension on the flexible web is taut.

It has, further, for its object to generally improve the construction of the parts in such a bed-bottom, so as to render the same more efficient and practicable in use and operation than heretofore.

To the accomplishment of the foregoing and such other objects as may hereinafter appear, the invention consists in the construction and also in the combination of parts hereinafter to be particularly described, and then specifically defined by the claims, reference being had to the accompanying drawings, forming part hereof.

Figure 1 is a vertical longitudinal section of a bed-frame with my invention applied. Fig. 2 is a plan view of the same. Fig. 3 is a

side view of one of the castings for supporting the revolving roller and showing the roller supported therein, the roller being in a cross-section. Fig. 4 is a cross-section on the line 4 4 of Fig. 6, looking in the direction of the arrows and showing in dotted lines a wrench applied in position to turn the roller, the dotted line W, Figs. 3 and 4, indicating the web which constitutes the bed-bottom. Fig. 5 is a cross-section taken on the line 5 5 of Fig. 3, looking in the direction of the arrows, with one of the flanged caps and a portion of the roller being in full lines and the roller being broken apart and showing both castings for supporting the roller. Fig. 6 is a similar view to Fig. 5, taken on the line 6 6 of Fig. 4, looking in the direction of the arrows, the tension-roller and attaching-bar and one of its caps being in full lines. Fig. 7 is a cross-section on the line 7 7 of Fig. 6, looking in the direction of the arrows.

In the drawings the letter A designates a bed-frame of any approved pattern and construction. At one end of the frame, to the inside of one of the side rails B, is secured a casting C, provided with an inwardly-extending band or collar D, formed with an opening E for the passage of a pawl F, pivoted, preferably, at the point *a*. This collar D is designed to receive a ratchet G, fitted on the end of a roller H, the opening in the ratchet for the end of the roller being made angular, so that the roller and ratchet will turn together. The ratchet is also formed with an angular shoulder I for the application of a wrench to turn the roller. The opposite end of this roller H rests in a segmental collar or band J, projecting inwardly from a casting K, which is secured to the inside of the other side rail B.

To the inside faces of the two side rails B, beneath the collars D and J, and preferably, although not necessarily, formed as a part of the castings C and K, are sockets L, which are provided with flanges M. The purpose of these sockets is to receive the ends of caps N, which receive the ends of a rod or bar O. These caps N are formed with flanges P, which fit behind the flanges M of the

sockets attached to the side rails. It will be observed that one side of the sockets L is open, so that the caps on the bar O can be slid into and out of said sockets. By providing the bar O with the caps N, which may be secured thereto by screws or otherwise, the bars can be adjusted in said caps to accommodate bed-frames of different widths. The caps N and bar O taken together may be said to constitute an adjustable bar whose length can be shortened or increased by inserting the ends of the bar more or less into the caps, and thus the bar can be made to suit the width of the bed-frame. By providing the caps with the flanges P and the sockets L with the flanges M the two side rails of the bed-frame are prevented from spreading apart when the flexible web is drawn taut and a strong tension put thereon. This is important, because in bed-bottoms of this class it not unfrequently happens that when much tension is put on the web the side rails are forced apart and portions of the bed-bottom thus disconnected.

At the opposite end of the bed-frame, to the inside of the two rails, there are secured castings Q, which are formed with segmental sockets R to receive the ends of a roller S, which lie therein. This roller is provided with caps or collars T, which can be adjusted on the roller so as to increase or shorten the length thereof to accommodate the length to the width of the bed-frame. These caps or sockets, therefore, may be said to constitute a part of the roller and can be fixed in their adjusted positions by screws or otherwise. These caps or collars are provided with flanges U, which will fit behind flanges V, formed as a part of the sockets R. The purpose of having these engaging flanges is to prevent the bed-frame spreading apart when tension is put upon the web, as previously mentioned in connection with the description of the bar O. The roller S is free to turn in its bearings.

The flexible web W is attached at one end to the bar O, thence passed to the opposite end of the bed-frame and around the roller S, and thence back to the other end of the frame and there secured to the roller H. When the parts are adjusted and arranged as described, the roller H is turned by means of a wrench applied to the angular shoulder of the ratchet G until the flexible web is drawn as taut as desired, the pawl F preventing the roll from turning backward.

The castings C and Q may be provided with studs or lugs X for entering the side rails of the bed-frame to assist in holding the castings firmly in place.

When it is desired to take out the bed bottom or rest, the wrench is applied to the angular portion of the ratchet and the roller turned until the pressure of the ratchet against the pawl is released, when the pawl can be lifted and the roller allowed to turn backward to slacken the web. The tension having thus

been taken from off the roller the latter can be easily and quickly lifted out of its bearings. The pawl will drop by gravity through the opening in the band or flange surrounding the ratchet, so as to engage with the ratchet-teeth.

By the construction which I have described the parts of the bed-bottom can be more easily put together and taken apart and operated and the spreading of the side rails absolutely prevented.

I have described with some particularity the details of construction of the several parts, but I do not mean to restrict myself to such details, as it is obvious that changes can be made therein without departing from the spirit of my invention.

Having described my invention and set forth its merits, what I claim is—

1. In a bed bottom or rest, the combination, with two revoluble rollers adjustable to the width of the bed and around which a web may be drawn, of a rod or bar for holding one end of said web, arranged below one of said revoluble rollers, adjustable end pieces formed to receive the ends of said rod or bar and provided with flanges, and socket-bearings for said end pieces, formed with flanges to engage with the flanges on said pieces, whereby the rod or bar may be adjusted to the width of the bed-frame and the sides of said frame be prevented from spreading apart, substantially as and for the purposes set forth.

2. In a bed bottom or rest, the combination, with a revoluble roller, around which a web may be drawn and a bar or rod arranged below said roller for the attachment of one end of said web thereto, said roller and bar or rod being adjustable to the width of the bed, of another revoluble roller around which the web may be drawn, adjustable end pieces formed to receive the ends of said last-mentioned roller and provided with flanges, and socket-bearings for said end pieces, formed with flanges to engage the flanges on said pieces, whereby said rollers can turn and be adjusted to the width of the bed-frame and the side rails to which the bearings may be secured will be prevented from spreading apart when tension is placed on said web, substantially as and for the purposes set forth.

3. In a bed bottom or rest, the combination, with the flanged sockets and the roller having flanged ends freely revoluble in said sockets at one end of the bed-frame, of the segmental and circular bearings at the opposite ends of the frame for the ends of the tension-regulating roller, a ratchet on the end of said roller fitting in said circular bearing, and a pawl passing through an opening in the circular bearing to engage said ratchet, whereby the ratchet end of the roller is held in place by its circular bearing and at the same time the pawl is permitted to engage the ratchet

lying in the bearing, flanged sockets having  
one side open to receive the ends of the  
flanged bar, and a web connected to said bar  
and passed around the freely-revoluble roller  
5 and attached at its other end to the adjusting  
tension-roller, substantially as and for the  
purposes described.

In testimony whereof I affix my signature in  
presence of two witnesses.

SILAS BERTENSHAW.

Witnesses:

S. W. SPRAGUE,  
E. N. CLEMENTS.