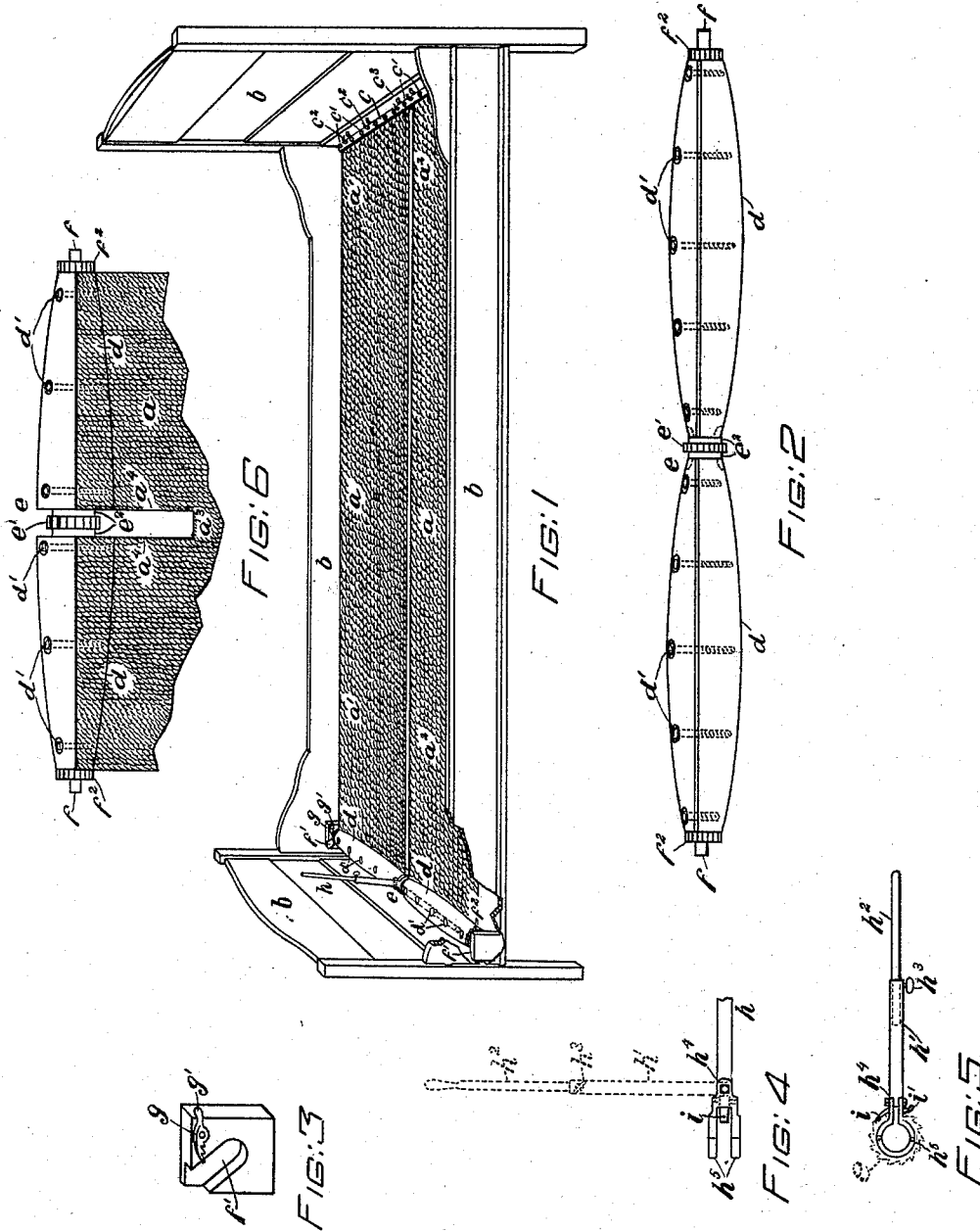


(No Model.)

A. D. COOKE & E. D. SHAW.
BEDSTEAD.

No. 498,968.

Patented June 6, 1893.



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BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 498,968, dated June 6, 1893.

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To all whom it may concern:

Be it known that we, ALBERT D. COOKE and ELISHA D. SHAW, citizens of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have jointly invented certain new and useful Improvements in Bedsteads, of which the following is a specification.

Our invention relates to bedsteads provided with bed-bottoms comprising any kind of web as woven wire, and it relates more particularly to mechanism and appliances for supporting and tightening or stretching such bed-bottoms.

The principal objects of our invention are first, to provide simple, durable and comparatively inexpensive devices for attaching a web of any kind directly to a bedstead without the intervention of a rectangular frame-work resting upon slats and attached to the web; second, to construct the web holding devices for operation in such manner that the web may be packed into a very small compass for storage or shipment and may be readily applied to the frame-work of a bedstead without the employment of slats; and third, to provide compact and efficient mechanism for tightening or stretching the web whenever it becomes necessary or desirable so to do.

In our invention use is made of a web secured at one end to a rod attached to the frame-work of a bedstead and at the other end to a roller journaled to said frame-work and controlled by detents and a ratchet-lever and ratchet-wheel.

Our invention consists in the improvements hereinafter fully described and particularly pointed out in the claims.

The nature, objects and scope of our invention will be more fully understood from the following description taken in connection with the accompanying drawings forming part hereof; and in which—

Figure 1, is a perspective view of a bedstead showing a bed-bottom comprising a web secured to the frame-work of the bedstead by means of web holding devices embodying features of our invention. Fig. 2, is a detached side elevational view drawn to an enlarged scale of the roller shown in Fig. 1. Fig. 3, is

a perspective view of one of the sockets for supporting the roller illustrated in Fig. 2, showing also a detent for preventing retrograde motion thereof. Figs. 4 and 5, are respectively a front and a side elevational view of the ratchet-lever shown in Fig. 1; and Fig. 6, is a detached plan view of a roller having a single breadth of web secured thereto.

In the drawings *a*, is a web of any required texture that constitutes the bed-bottom and is attached directly to the frame-work of a bedstead by means of web supporting and stretching devices hereinafter described and in such manner that slat-bearers and slats are dispensed with, whereby a considerable saving in the expense with respect to the bottoms is effected. This web *a*, may be made in two breadths *a'* and *a''*, as shown in Fig. 1, or in a single breadth as will be hereinafter described. One of the respective extremities of each of the breadths *a'* and *a''*, of the web, is attached to a bar *c*, in any suitable manner as by clamping it by means of a wedge-shaped filler fitted over the ends of the webs *a'* and *a''*, and into a groove in the bar *c*. In the present instance the bar *c*, is made in two parts and the ends of the breadths of the web are clamped and firmly held between them by means of screws *c'*. Of course, rivets, hinges or catches may be employed in lieu of the screws *c'*, or, if preferred, the two parts of the bar *c*, may be tied together with cords, bands or the like. The bar *c*, is attached to one end of the bedstead either by fitting it into sockets secured to the siderails or posts, or as in the present instance, by means of hooks *c''*, connected with a special strip *c'''*, suitably attached to the frame-work of the bedstead, and adapted to engage eyes fastened to the bar *c*. The other ends of the breadths *a'* and *a''*, of the web *a*, are secured to a roller *d*, in any suitable manner. In the present instance the roller *d*, is divided longitudinally into two parts and the ends of the breadths *a'* and *a''*, are clamped between these parts by means of screws *d'*. This roller *d*, is divided transversely into two parts and these parts are pinned or otherwise secured to a union *e*, Figs. 2 and 6, that is provided with a ratchet-wheel *e'*, located inter-

mediate of seats e^2 . The extremities of the roller d , are provided with gudgeons or pivots f , which are adapted to be dropped into sockets f' , attached to the side rails or posts of the bedstead and with toothed wheels f^2 . g , are detents pivotally attached to the sockets f' , Fig. 3, and provided with several teeth meshing with the toothed wheels f^2 , in order to prevent retrograde movement of the roller d , due to the strain or tension of the web. These detents are provided with lugs g' , by means of which they may be readily lifted out of operative position whenever it becomes necessary or desirable so to do.

The respective divisions of the roller d , Fig. 2, are of increasing diameter from the ends toward the center thereof, in order to compensate for the extra sagging that always occurs in the center portion of a web that constitutes a bed-bottom and is provided with reinforced or stiffened edges.

h , is a ratchet-lever preferably comprising a sleeve h' , and a handle h^2 , adapted to be telescoped when not in use and provided with a set-screw h^3 , for clamping said parts in open or closed position. The sleeve portion h' , of this ratchet-lever h , is journaled as at h^4 , to a pair of two-part collars h^5 , that are adapted to encircle the seats e^2 .

i , is a pawl depending from the collars h^5 , into engagement with the ratchet-wheel e' , and provided with a lug i' , by means of which it may be thrown out of and into action.

In some cases a single breadth of web is preferable to two breadths located side by side. In such cases the roller d , is of increasing diameter from the ends toward the center, as shown in Fig. 6, in order to compensate for any excessive sagging that may occur at the center portion of the web, and the web itself is divided for a short distance as at a^3 , and reinforced as at a^4 , in order to accommodate the ratchet-lever h .

The mode of operation of the hereinabove described mechanism is as follows:—The bed-bottom in a compact roll strapped upon the roller d , and with the ratchet-lever h , either detached or simply turned down and wound up in the roll, is fitted into the sockets f' .

The straps are then unbuckled and the bar c , is secured in place at the opposite end of the bedstead in the manner above described. Under these circumstances the web is very loose and must be stretched. This is accomplished by throwing the detents g and pawl i , into action, turning the ratchet-lever h , into the position illustrated by full lines in Fig. 1, and then reciprocating the ratchet-lever h , back and forth, thus causing the pawl i , acting through the instrumentality of the ratchet-wheel e' , to rotate the roller d , and thus tighten or stretch the web. After the web has been properly tightened the ratchet-lever h , may be telescoped and turned into the position illustrated by dotted lines in Fig. 1, in

order to cause it to assume a position out of the way and out of sight.

It may be remarked that by the employment of the hereinabove described devices and arrangement of parts, we are enabled to dispense with slat bearings, slats and heavy cumbersome framings for stretching and supporting the web, and to provide a neat, light and comparatively inexpensive bed-bottom which constitutes an integral part of the bedstead.

Having thus described the nature and objects of our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a bedstead, a web detachably secured at one end to the side rails or posts and at the other end to a divided roller provided with a central ratchet-wheel and with end toothed wheels and gudgeons or pivots engaging sockets, detents provided with a series of teeth adapted to engage with the end toothed wheels of said roller to prevent retrograde movement thereof due to strain or tension of the web and said detents provided with means for the release thereof, and a telescoping lever straddling said ratchet-wheel and provided with a pawl adapted to engage said ratchet-wheel, substantially as and for the purposes set forth.

2. In a bedstead, a two part bar provided with devices for clamping one end of the web between the parts thereof, hooks and eyelets for connecting said bar to the bedstead, a divided web tightening roller provided with end toothed wheels and pivots engaging sockets, notched detents adapted to engage the end toothed wheels of said rollers, a ratchet-wheel centrally secured to said tightening-roller, and a lever provided with a pawl straddling said ratchet-wheel, substantially as and for the purposes set forth.

3. In a bedstead, a web tightening roller provided with a collar having a sleeve adapted to be folded down onto the roller, a handle working in said sleeve, and pawl-and-ratchet connections between the collar and roller, substantially as and for the purposes set forth.

4. A bedstead provided with a web detachably secured at one end to a bar applied to the side rails or posts thereof and at the other end to a divided roller having a collar mounted thereon provided with a sleeve adapted to be folded down onto the roller, a handle working telescopically in said sleeve and pawl-and-ratchet connections between the collar and roller, substantially as and for the purposes set forth.

In testimony whereof we have hereunto set our signatures in the presence of two subscribing witnesses.

ALBERT D. COOKE.
ELISHA D. SHAW.

Witnesses:

THOMAS M. SMITH,
RICHARD C. MAXWELL.