No. 611,270. Patented Sept. 27, 1898.

A. NILSON.

EXTENSIBLE BEDSTEAD.

(Application filed Mar. 16, 1898.)

(No Model.) 3 Sheets—Sheet 1.

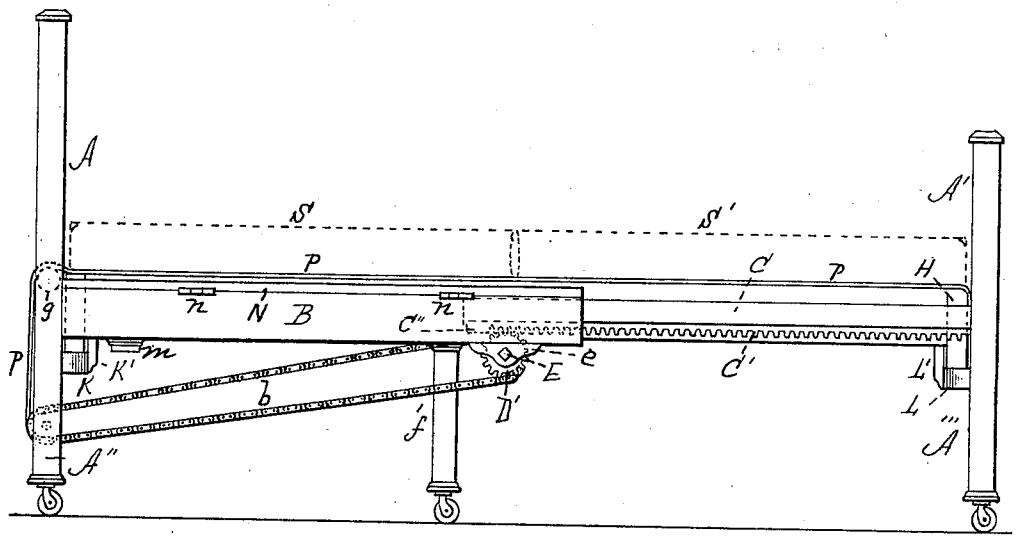


Fig. 1.

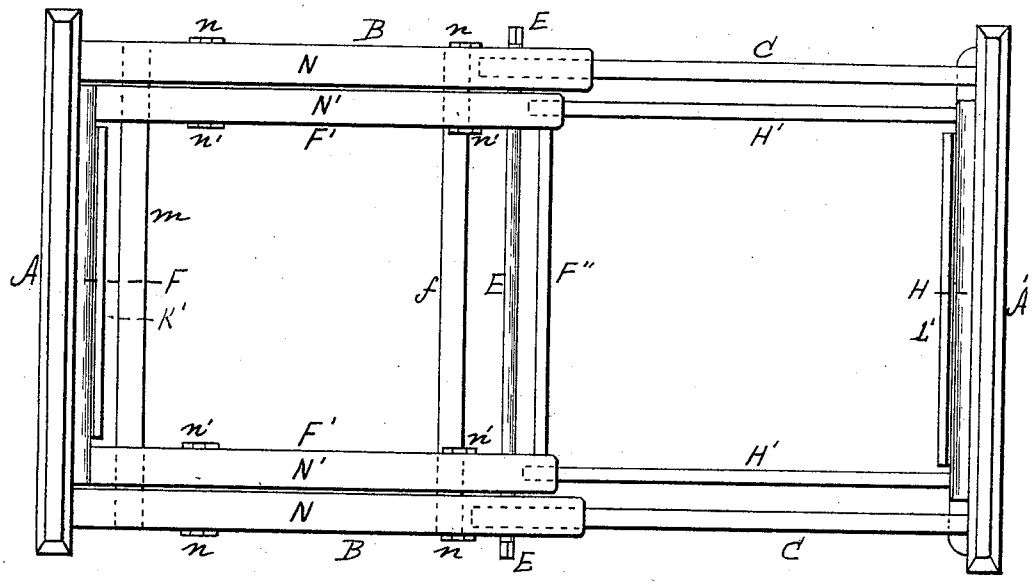


Fig. 2.

WITNESSES
A. J. Bonney.
A. J. Bonney.

INVENTOR
Anton Nilson
By his Att'y.
Henry W. Williams

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 611,270. Patented Sept. 27, 1898.

A. NILSON.

EXTENSIBLE BEDSTEAD.

(Application filed Mar. 16, 1898.)

(No Model.) 3 Sheets—Sheet 2.

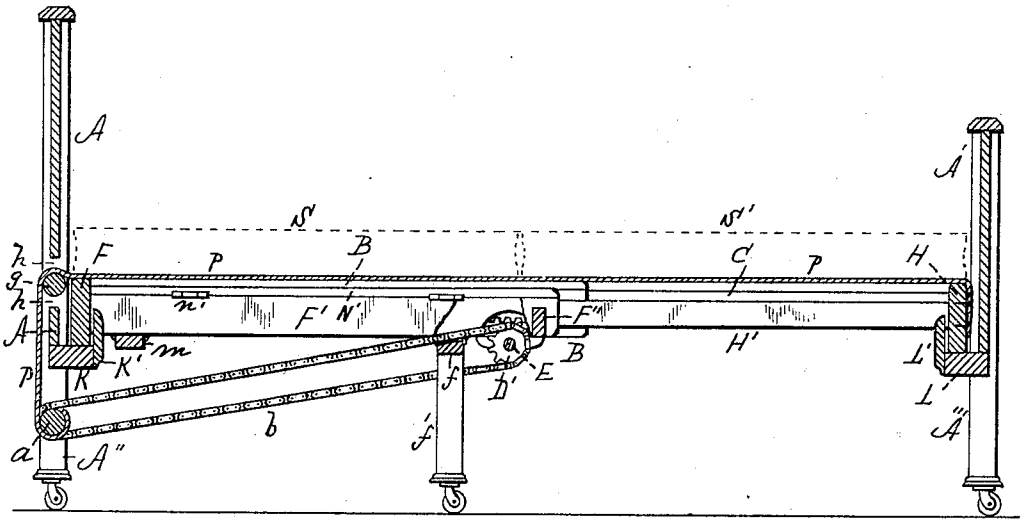


Fig. 3.

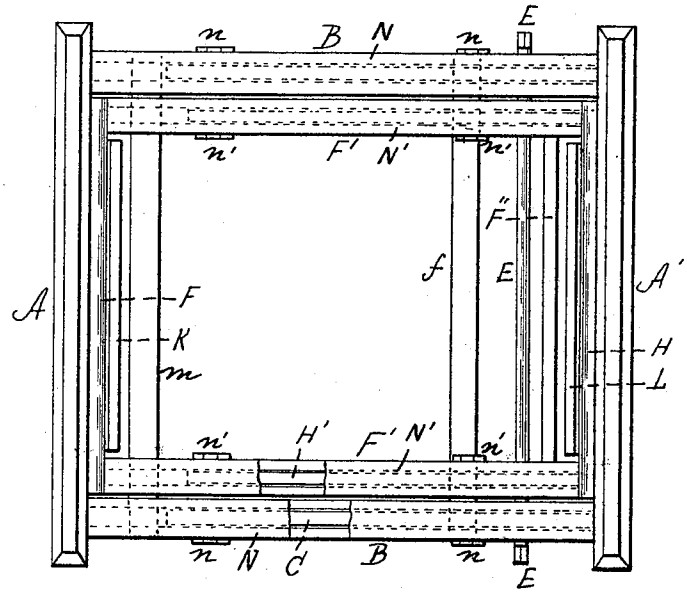


Fig. 4.

WITNESSES
A. F. Bonney
A. G. Bonney.

INVENTOR
Anton Nilson
By his Atty.
Abner W. Williams

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 611,270. Patented Sept. 27, 1898.

A. NILSON.

EXTENSIBLE BEDSTEAD.

(Application filed Mar. 16, 1898.)

(No Model.) 3 Sheets—Sheet 3.

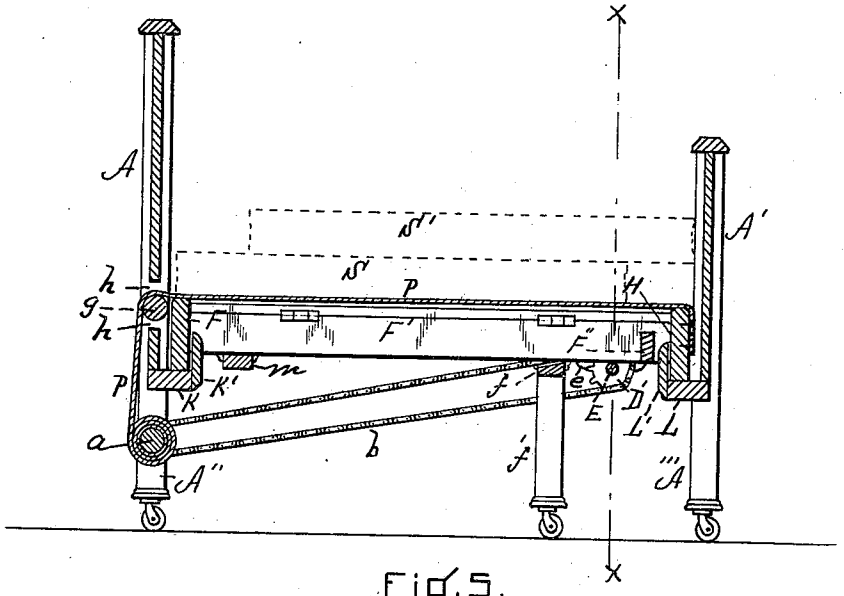


Fig. 5.

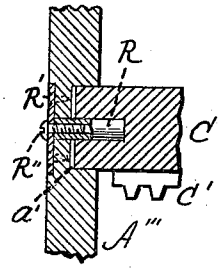


Fig. 7.

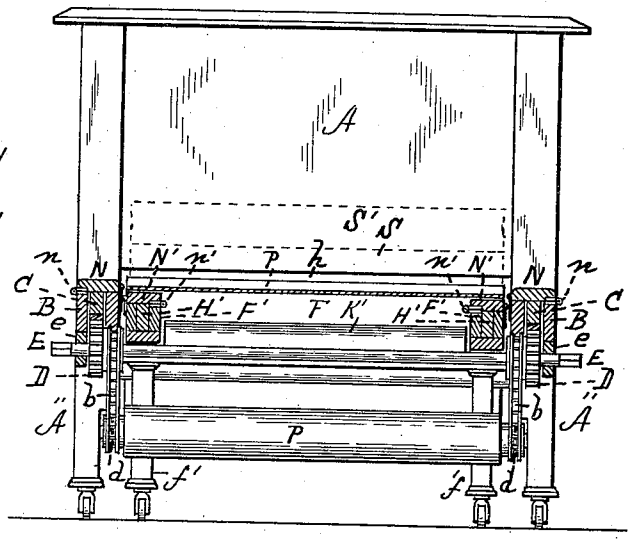


Fig. 6.

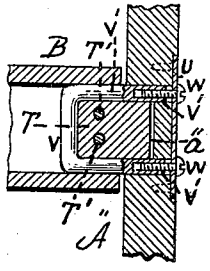


Fig. 8.

WITNESSES
A. N. Bonney.
A. G. Bonney.

INVENTOR
Anton Nilson
By his Att'y
Henry W. Williams

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ANTON NILSON, OF NATICK, MASSACHUSETTS.

EXTENSIBLE BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 611,270, dated September 27, 1898.

Application filed March 16, 1898. Serial No. 674,032. (No model.)

To all whom it may concern:

Be it known that I, ANTON NILSON, a citizen of the United States, residing at Natick, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Extensible Bedsteads, of which the following is a specification.

This invention relates to bedsteads which when extended in length are in position for use and when not in use are contracted in length or closed, so as to occupy much less space; and the invention relates to certain novel constructions and arrangements of parts whereby the bedstead is thus rendered extensible and contractible, whereby the rails may be cleansed internally, and whereby the general construction of the device is improved.

The nature of the invention is fully described in detail below and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved bedstead extended and in position for use. Fig. 2 is a plan view of the same. Fig. 3 is longitudinal vertical section of the same, a small portion being represented as broken out. Fig. 4 is a plan view of the same closed or contracted, small portions being represented as broken out. Fig. 5 is a longitudinal vertical section of the same in a closed position. Fig. 6 is a cross vertical section taken on line X, Fig. 5. Figs. 7 and 8 are details in vertical section of the joints at the foot and head, respectively.

Similar letters of reference indicate corresponding parts.

A represents the headboard, provided with legs A″, and A′ the footboard, provided with the legs A‴. Rigid with the headboard and extending therefrom are the side rails B, made hollow or longitudinally recessed, as indicated in Figs. 4 and 6, to receive telescopically the side rails C, rigid with and extending from the footboard A′. The under edges of these rails C are formed into racks C′, as indicated in Figs. 1 and 7, by means of which they are engaged by the gear-wheels D, fast on the shaft E, which extends across the bedstead and is supported by suitable boxes *e*, secured to the under sides of the rails B. Rigid or integral with the gear-wheels D are sprockets D′, Fig. 3, which are connected by suitable chains *b* with sprocket-wheels *d*, Fig. 6, on the horizontal roll *a*, Figs. 3, 5, and 6, supported at its opposite ends loosely by the legs A″ under the headboard. Preferably a cross-bar *f* connects the rails B near their inner ends, such cross-bar being supported by legs *f*′.

An inner rectangular extensible frame is provided, said frame consisting of the cross-piece F, from which rigidly extend the side rails F′, and the cross-piece H, from which rigidly extend the side rails H′. The side rails F′ are hollow and are constructed substantially like the side rails B, and the rails H′ extend into the rails F′ telescopically. (See Figs. 4 and 6.) A cross-bar F‴ connects the rails F′ near their inner ends.

Rigidly secured to the headboard A and legs A″ is the horizontal ledge or cross-bar K. This ledge extends inward, as shown in Figs. 3 and 5, and has secured to its inner edge the upwardly-extending flange K′. A similar ledge L, provided with an upwardly-extending flange L′, is secured to and extends inward from the footboard A′ and legs A‴. These flanges are shorter than the ledges to which they are secured, so that the cross-pieces F and H can drop behind the flanges and rest on the ledges K and L, respectively, while said flanges K′ and L′ extend up within or between the rails F′ and H′, respectively. Thus the telescopic inner extensible frame has its ends locked to the telescopic outer extensible frame, and any movement to contract or extend the outer frame of the bedstead will cause the inner frame to contract or be extended with it.

The headboard is provided with a horizontal opening *h*, Figs. 3, 5, and 6, within which a horizontal roll *g* is disposed, said roll having its bearings in the legs A″. A bed-bottom P, (shown in Figs. 1, 3, 5, and 6 only,) made of canvas or other suitable material, has one end secured to the cross-bar H, and thence extends horizontally over the cross-bar F and over the roll *g* down to the roll *a*, to which its opposite end is secured.

The bedstead being extended into the position indicated in Figs. 1, 2, and 3, to close or contract the same a suitable crank is applied to the squared end of the shaft E, which by means of the gear-wheels D, engaging with

the racks C′, closes the bedstead by moving the side rails C into the rails B. This movement also pushes the rails H′ into the rails F′. At the same time the sprocket-wheels D′ by means of the chains *b* rotate the roll *a* and wind around it the canvas P, as shown in Figs. 5 and 6. To extend the bedstead, the shaft E is rotated in a reverse direction, thus drawing the rails C out of the rails B into the position indicated in Figs. 1, 2, and 3, the inner frame F F′ H H′ being extended at the same time by the flanges K′ and L′, which pull apart the cross-pieces F and H. Simultaneously with this movement the roll *a* is rotated in an opposite direction, and thus allows the canvas P to unwind as fast as the bedstead is extended. Any suitable stop may be provided for preventing the rails B and C from entirely separating, the means shown in the drawings consisting of the flat tooth C″ (broken lines, Fig. 1) at the end of the rack C′. The broken lines S and S′ indicate short mattresses, one of which is laid upon the other when the bedstead is to be closed. The hollow rails B and F′ are provided with lids or covers N and N′, respectively hinged at *n* and *n′* to said rails B and F′. By swinging back these covers access may be had to the openings or spaces into which the bars C′ and H extend, and hence such openings can be thoroughly cleansed. A cross-bar *m* may be provided, if desired, for further stiffening the bedstead, such cross-bar extending from one to the other of the rails B.

The mode of connecting the ends of the bars C to the legs A‴, rigid with or making a part of the footboard, is indicated in Fig. 7. An internally-screw-threaded tube or socket R extends horizontally through the leg and into the end of the bar C. A plate R′ is secured to the outer surface of the leg A‴, and a screw R″ extends through said plate into the tube R and by engaging therewith secures the rail and footboard rigidly in position. The leg A‴ is recessed at *a′* to receive the end of the rail C.

The method of securing the rail B to the leg A″, making a part of the headboard A, is illustrated in Fig. 8. A block T is secured by dowels or bolts T′ within the hollow rail B, said block extending therefrom into the recess *a″* in the leg A″. A plate U is screwed to the outer side of said leg, and a staple V extends around the upper, under, and inner sides of the block T, as shown. This staple has hollow legs V′, which extend through the leg A″ and against the inner surface of the plate U. Screws W extend through suitable openings in the plate and engage with the threads in the hollow legs V′, and thus unite the headboard and rail B.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In an extensible bedstead, the headboard A provided with the horizontal openings *h* and legs A″; the footboard A′ and legs A‴; the extensible side rails each consisting of the two parts B and C sliding longitudinally with relation to each other, said parts C being formed on their under edges with the racks C′; the horizontal shaft E supported by the parts B of the rails and extending from one to the other; the gear-wheels D fast on said shaft and engaging with said racks; the sprocket-wheels D′ fast on said shaft; the horizontal roll *a* supported by the legs A″ and provided with suitable sprockets *d;* chains connecting the sprockets D′ and the sprockets on the roll *a;* the horizontal roll *g* supported in said opening in the headboard; the inner extensible frame F, H, F′, H′ adapted to be extended and contracted by and with the outer frame; and the bed-bottom consisting of the strip P secured at one end to the foot cross-piece H, and extending therefrom to and over said roll *g* and to the lower roll *a* to which its opposite end is secured, substantially as set forth.

2. In an extensible bedstead, the leg A″ provided with the recess *a‴;* the hollow rail B; the block T extending horizontally from the interior of said rail into said recess and rigidly secured to the rail; the plate U, secured to the outer surface of the leg opposite the recess; the staple V provided with the hollow internally-screw-threaded legs V′, said staple embracing the block T within the rail and with its legs extending horizontally to the outer surface of the leg A″; and screws extending through said plate and engaging with the threaded hollow legs of the staple, substantially as set forth.

ANTON NILSON.

Witnesses:
HENRY W. WILLIAMS,
A. N. BONNEY.