

A. BRAY.
Invalid Bedsteads.

No. 139,493.

Patented June 3, 1873.

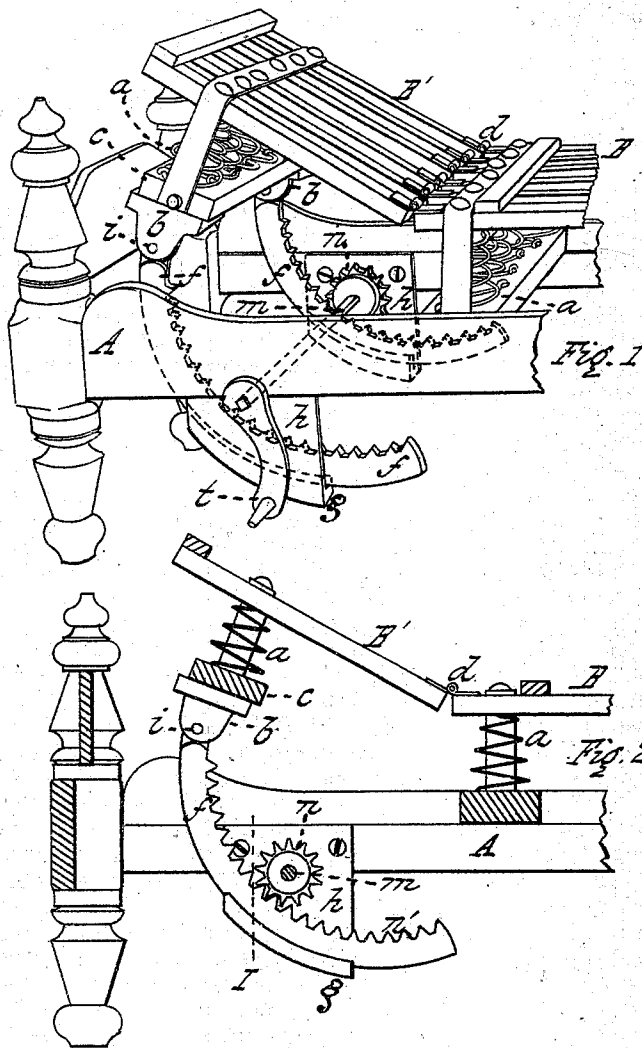


Fig. 1

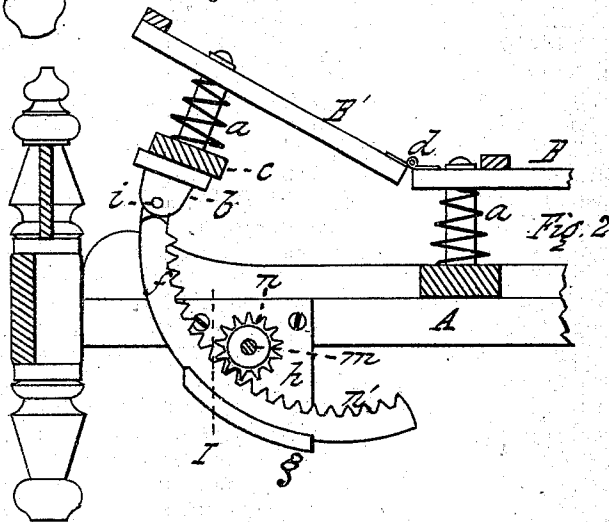


Fig. 2

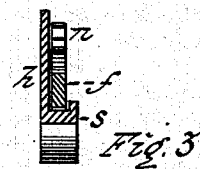


Fig. 3

Witnesses,
C. Eugene Buckland.
J. P. Hall.

Inventor,
Abner Bray.
By J. A. Curtis.
his Atty.

UNITED STATES PATENT OFFICE.

ABNER BRAY, OF CHICOPEE, MASSACHUSETTS.

IMPROVEMENT IN INVALID-BEDSTEADS.

Specification forming part of Letters Patent No. **139,493**, dated June 3, 1873; application filed May 10, 1873.

To all whom it may concern:

Be it known that I, ABNER BRAY, of Chicopee, State of Massachusetts, have invented an Improvement in Adjustable Spring-Beds, of which the following is a specification:

The object of my invention is to provide a means of elevating or depressing the upper or head portion of a spring-bed to any desired inclination even when occupied by a sick person; and this I accomplish by means of the combination, with a spring-bed—one part of which is hinged to the other part—of a shaft, *m*, extending across from one side rail, *A*, to the other, and having its bearings at each end in metal plates *h h* secured to the siderails *A*, said shaft being provided with toothed wheels *n n*, which operate toothed segments *f f* pivoted to a bar which supports the swinging part of the spring-bed, which segments are supported by a flange, *g*, on the metallic plates, so that the rotating of said shaft raises or depresses the head portion of the spring-bed, according as the shaft is rotated in one direction or the other.

In the drawings, Figure 1 is a perspective view of so much of a bed as is necessary to illustrate my invention. Fig. 2 is a longitudinal vertical section through the middle of the bed; and Fig. 3 is a vertical section at line I through the metal plates which support the shaft and toothed segments at either side.

A A represent the side rails of the bedstead, having the metal plates *h h* secured thereto, one on each side; and the shaft *m* extends across and has its bearing, at each end, in one of the plates *h*, the shaft projecting through at one end, so that the winch *t* may be fitted thereon outside the rail *A*. A bar, *c*, supports the spring *a*, upon which rest the slats *B'*, which are hinged to other slats *B* at *d*; and a

metallic piece, *b*, is secured to the bar *c*, to which piece *b* is pivoted the toothed segment *f*, one on each side. The outside curved edge of the segment *f* rests on a projecting flange, *g*, which keeps the segment in place; and the toothed wheels *n n* are made fast to the shaft *m*, one at each end, and engage with the teeth made on the segment.

If the slats *B'* are in position upon the same horizontal plane with the slats *B*, and it is desired to elevate the slats *B'* at the end, the winch *t* is placed upon the end of the shaft *m* and moved as indicated by the arrow, the shaft and toothed wheels *n n* will be rotated, moving the segments *f f* and bar *c* upward; and if the movement of the winch *t* is reversed the bar *m* and slats *B'* will be depressed by the gears *n* drawing the segments *f* downward.

It is evident that the teeth may be made upon the outer curved edge of the segment instead of the inside; and the toothed wheels *n n* be located outside of the segments without departing from the principle of operation.

I am aware that spring-beds have heretofore been made adjustable at the head portion, and I do not claim that feature, broadly, irrespective of my construction and arrangement; but—

I claim as my invention—

The combination, in a spring-bed having the slats hinged or jointed at *d*, of the bar *c*, having the toothed segments *f f* pivoted thereto, with the plates *h h* provided with retaining-flanges *g*, and the shaft *m* provided with the toothed wheels *n n*, and operated by a winch, *t*, substantially as described.

ABNER BRAY.

Witnesses:

T. A. CURTIS,

C. EUGENE BUCKLAND.