A. TONNELE & W. J. CURTIS.

ADJUSTABLE SUPPORT FOR BEDS.

APPLICATION FILED SEPT. 2, 1916.

1,226,415.

Patented May 15, 1917.

2 SHEETS—SHEET 1.

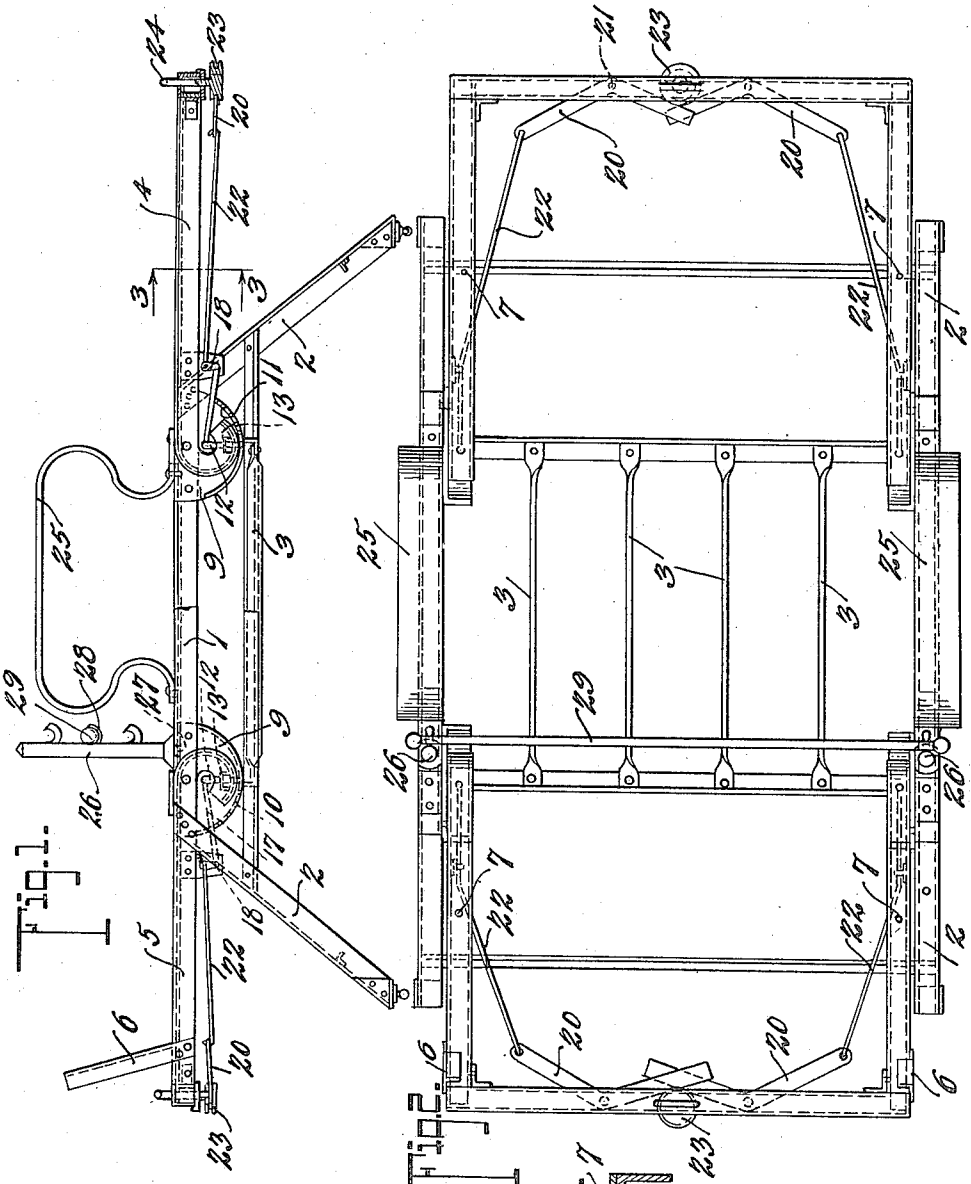


Fig. 1.

Fig. 2.

Fig. 3.

Witness

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Fig. 4.

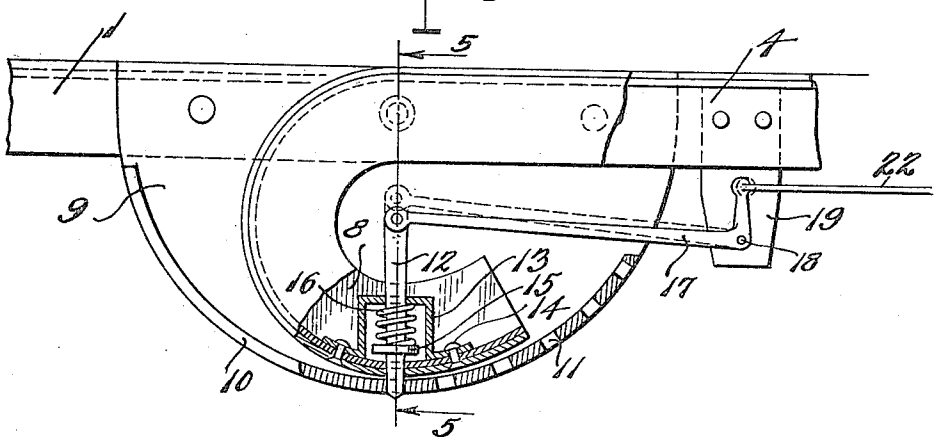


Fig. 5.

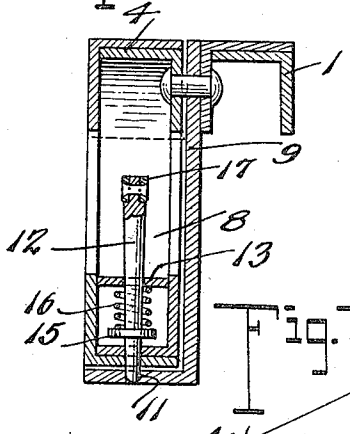


Fig. 6.

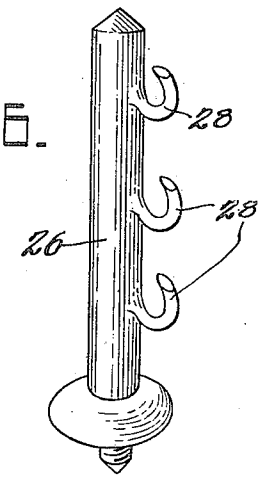
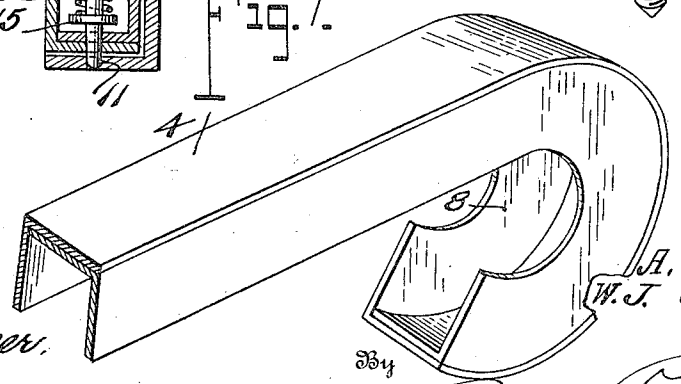


Fig. 7.



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UNITED STATES PATENT OFFICE.

ALFRED TONNELE AND WILLIAM J. CURTIS, OF WILMINGTON, DELAWARE, ASSIGNORS TO NATIONAL ADJUSTABLE BED AND SPRING COMPANY, OF WILMINGTON, DELAWARE.

ADJUSTABLE SUPPORT FOR BEDS.

1,226,415. Specification of Letters Patent. Patented May 15, 1917.

Application filed September 2, 1916. Serial No. 118,228.

To all whom it may concern:

Be it known that we, ALFRED TONNELE and WILLIAM J. CURTIS, citizens of the United States, residing at Wilmington, in the county of New Castle and State of Delaware, have invented certain new and useful Improvements in Adjustable Supports for Beds, of which the following is a specification.

The present invention has to do with improvements in that type of adjustable bedsteads, couches or the like disclosed in Patent No. 1,092,698, granted to William J. Curtis, under date of April 7, 1914.

These improvements are directed particularly to the locking mechanism for the adjustable sections of the bedstead, tending toward a simplification of the structure from the manufacturing standpoint while maintaining a maximum amount of strength of the parts sustaining the strains incident to the use of the device.

Furthermore, as such bedstead structure above referred to is particularly adapted for use by invalids, our object has been to embody in the construction suitable arm, knee and foot rests or supports conducing materially to the comfort of the user of the invention.

For a full understanding of the present invention, reference is to be had to the following description and the accompanying drawing, in which:

Figure 1 is a side elevation of an embodiment of the invention.

Fig. 2 is a top plan view thereof.

Fig. 3 is a sectional view on the line 3—3 of Fig. 1, showing the channeled construction of the frame members.

Fig. 4 is an enlarged detail view in side elevation parts being broken away and shown in section of the locking mechanism for the adjustable sections.

Fig. 5 is a vertical sectional view on the line 5—5 of Fig. 4.

Fig. 6 is a detail view of one of the supporting standards for the knee rest.

Fig. 7 is a perspective view of a curved arm terminal of one of the adjustable sections.

Throughout the following detail description, and on the several figures of the drawing, similar parts are referred to by like reference characters.

Referring to the drawing and specifically describing the invention 1 designates what we term for the purposes of this description, the main frame of the bedstead, 2 the angularly disposed legs therefor, and 3 the central spring supporting elements forming a part of the main frame. Pivotally connected at one end of the main frame 1 is a head rest or support 4 while at the opposite end of the frame is a foot rest or support 5, the latter being similar to the head rest in all respects excepting only that it is provided with angle pieces 6 inclining slightly from the vertical and forming a foot rest support for the foot section 5. It is to be understood that the main frame and the adjustable sections hereinbefore referred to are provided with suitable springs or spring elements, such being omitted, however, in the disclosure of the present construction for the purpose of clearness of illustration.

As will be observed particularly by reference to Fig. 3, the frame members of the adjustable sections 4 and 5 consist of angle iron elements superposed with relation to each other and secured together by fastening means such as rivets 7 thus forming a strong channel iron construction as desirable in devices of this character. The side members of each of the adjustable sections at their pivoted ends are bent downwardly on a curve to form arms 8 each of which carries a locking element hereinafter more particularly set forth. Secured to the side members of the main frame adjacent to each of the curved arms 8 is a segmental or substantially semi-circular plate 9, the lower curved edge portion of which is bent laterally to provide a flange 10, the latter being suitably formed with a series of apertures 11 as shown clearly in Fig. 4. The arms 8 partake of a curvature which in the movement of the particular adjustable section describes an arc following the arc of the curve of the flange 10 of said plates. Carried by each arm is a vertically arranged locking member or pin 12 which is supported within the channeled arm by a guide member or keeper 13 held in place by suitable fastening members 14. The pin 12 is formed with an annular flange 15 between which and the keeper is disposed a spring 16 tending to hold the pin projected from the arm into engagement with the apertured flange 10 therebeneath. The pin is retractable by manipu-

lative means consisting of a bell crank lever 17 pivotally supported at 18 on a depending plate 19 attached to a side of the adjustable section. The long arm of this lever is secured to the upper end of the pin 12 and the short arm is operatively connected to a horizontally disposed lever 20, pivotally secured at 21 to the end bar of the adjustable frame, by means of the link 22. This lever 20 is adapted for actuation by a cam disk 23 provided with a handle member 24. The elements above described, excepting, of course, the disk 23 and the handle 24 are duplicated at the other side of the adjustable section and each of the head and foot sections is similarly constructed so as to enable the adjustment of either or both of said sections to change the position of the different portions of the body of a person reclining upon the bed construction.

The main frame is suitably provided at each side with an arm rest 25 and adjacent to the end of said frame to which the foot section 5 is attached is arranged a knee rest consisting of the vertically disposed standards 26 each provided with a threaded stud 27 at its lower end, for attachment purposes and having projecting therefrom a plurality of curved hook members 28. A rod 29 is disposed in the hook members 28 corresponding in height transversely of the bed and over this rod the mattress is preferably positioned. This construction, it will be apparent, enables the knees to be elevated to different heights as may be desired.

As the foregoing principles of construction may easily be carried out upon different types of bedsteads, couches or similar articles, we do not desire to be limited to the type of bedstead which is described and illustrated herein.

Having thus described our invention, what we claim as new is:

1. In combination, a bedstead comprising a main frame, an adjustable support having its side members pivotally connected to an end of said frame, said side members having their ends bent downwardly to form curved arms, locking mechanism for holding said support at adjusted positions consisting of substantially semicircular plates attached to the main frame, each of said plates having its lower edge portion bent to form a flange projecting inwardly beneath its coöperating curved arm, said flange having a series of apertures therein, a spring actuated locking member mounted on each arm and extending downwardly therethrough for engagement with the apertured flange, and manipulative means for lifting the pin to retract the same from its engaging position.

2. In combination, a bedstead comprising a main frame, an adjustable support having side members pivotally connected to an end of said frame, the ends of said side members curving downwardly beneath the pivot to provide depending arms, a locking pin carried by each arm and extending therethrough, each of said pins having an annular flange, an apertured guide member carried by each arm with which the pins coöperate, springs surrounding the pin and interposed between the guide members and annular flanges for normally holding the pin projected from the arm, a flanged plate attached to the frame adjacent to each of said arms for engagement by its coöperating pin aforesaid, and means for lifting said pin comprising bell crank levers connected to the pins and actuating means for said levers.

3. In combination, a bedstead comprising a main frame, an adjustable support secured to each end of said frame, the frame members of which are formed of angle plates secured together to provide a channeled frame construction, a locking plate secured to the main frame adjacent to each of said adjustable sections, locking means mounted in the channeled side members of said adjustable sections including a vertically arranged locking pin housed in the channeled frame of each adjustable section.

In testimony whereof we affix our signatures.

ALFRED TONNELE.
WILLIAM J. CURTIS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."