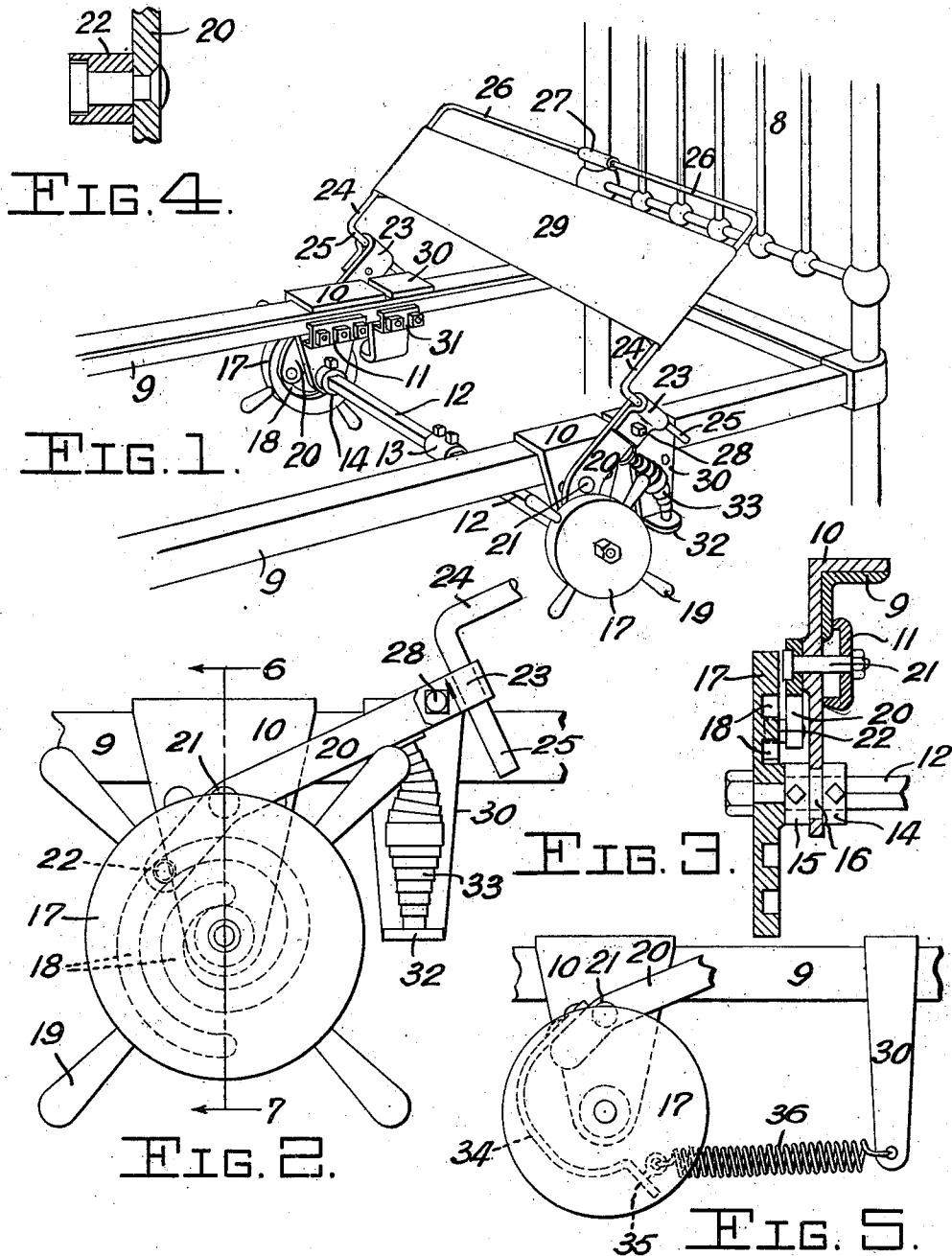


J. G. RYAN.
 HEAD REST FOR BEDS.
 APPLICATION FILED JULY 11, 1910.

981,691.

Patented Jan. 17, 1911.



WITNESSES
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UNITED STATES PATENT OFFICE.

JOHN G. RYAN, OF MONTREAL, QUEBEC, CANADA.

HEAD-REST FOR BEDS.

981,691.

Specification of Letters Patent.

Patented Jan. 17, 1911.

Application filed July 11, 1910. Serial No. 571,304.

To all whom it may concern:

Be it known that I, JOHN G. RYAN, of the city of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Head-Rests for Beds, of which the following is a full, clear, and exact description.

This invention relates to a head rest attachment designed to be secured to beds, lounges, or the like, and comprises an adjustable rest adapted to support the head and shoulders of an occupant of the bed.

The main object of the invention is to provide a simple and inexpensive device that can be operated with great ease and rapidity; that can be adjusted to any desired position, and that will automatically lock itself at any angle within 90°.

In the drawings which illustrate my invention;—and in which similar numerals of reference refer to similar parts throughout:—Figure 1 is a perspective view of a bed showing the head rest attached thereto in operative position. Fig. 2 is an enlarged side elevation of the operating mechanism. Fig. 3 is a sectional view on the line 6—7 of Fig. 2. Fig. 4 is a sectional detail view of the arm tip and roller device. Fig. 5 is an elevation of a slightly modified form of construction.

Referring to the parts, 8 designates the head frame of the bed, and 9 the side rails. The operating mechanism for the head rest is secured to brackets 10 which are fastened to the side rails by means of any suitable clamps 11. The operating mechanism on each side is connected by a square shaft 12, which is preferably made in two parts connected by a coupling 13 into which the ends of the two part shaft 12 are inserted, said coupling being provided with set screws whereby the shaft may be adjusted to suit the width of any bed. Near the ends of the shafts on the inner side of the brackets 10, I provide collars 14, and immediately outside of the brackets I provide similar collars 15. One of these collars is provided with a journal or bearing 16, which extends through an aperture in the lower end of the bracket 10, and on this bearing the shaft 12 may be rotated. Fixed to each end of the shaft 12 are disks 17, provided on their inner surfaces with spiral slots 18, the purpose of which will be hereinafter explained. These disks are provided with any suitable

operating handles 19, by means of which they may be turned to rotate the shaft.

Levers 20, connecting the head rest proper with the operating mechanism, are provided, said levers being pivoted to the brackets 10 by any suitable pivots 21. The lower ends of said levers are preferably bent at an angle, as indicated in Fig. 2, and the extremities are provided with suitable rollers 22, said rollers engaging in the spiral slots 18 of the disks and being movable freely therein. The opposite ends of the levers are looped as indicated at 23 to form a socket adapted to hold the foot members 25 of the side rails 24 of the head rest. These foot members 25 are bent downwardly, as indicated, and the longitudinal side members 24 are again bent at right angles at the top, to form the head rail 26 of the head rest. This head rest is preferably constructed of tubing and is made in two parts, said parts being connected by a coupling 27 similar to the coupling 13, by means of which the ends of the head rail 26 may be adjusted to the width of the bed. The foot members 25 may also be adjusted within the sockets 23 by means of the set screws 28. The side members 24 may be connected by one or more canvas strips 29 adapted to hold the mattress.

At the rear of the brackets 10, I provide a second set of brackets 30 fixed to the side rails of the bed by means of the clamps 31. These brackets 30 are provided with outwardly extending feet 32 adapted to hold the compression springs 33. The bottom of each spring 33 rests on the feet 32 and is connected at the top to the lever arms 20. These springs are preferably telescoping, conical compression members of a well known type.

In the alternative form of device shown in Fig. 5, the operating mechanism is exactly the same as above described except that I provide a spring arm 34 secured to the ends of the levers 20 and bent outwardly as indicated in dotted lines to avoid the axle of the disks. This spring arm 34 is provided with a foot 35 to which is attached a helical tension spring 36, fastened at the front end to the bracket 30.

In operation either one or both of the disks 17 are turned by means of the handles 19, the rollers 22 sliding freely in the spiral slots 18. These rollers, which are secured to the ends of the lever arms 20, will thus carry

said lever arms toward or away from the center of the disks, thus lowering or raising the head rest as desired. The direction of pressure between the rollers 22 and the spiral slots will always be radial, that is, away from the center of the disks, and the frictional engagement between the rollers and the sides of the slots will be sufficient, when any pressure is placed on the head rest, to automatically lock or hold the head rest in such position. The springs 33 or 36, whichever may be used, will assist in raising the head rest and similarly will tend to resist the tendency of the head rest to drop when any weight is placed upon it.

It will be obvious that the operating mechanism may be used on either one or both sides of the bed.

Having thus described my invention, what I claim is:—

1. A head rest for beds comprising a U-shaped frame, means for laterally adjusting said frame, brackets secured to the side rails of the bed, a laterally adjustable polygonal shaft, adjustable collars thereon journaling the shaft in said brackets, spirally slotted disks fixed to the ends of said shaft, pivoted lever arms mounted on said brackets means for adjustably securing one end of each lever arm to the extremities of said U-shaped frame, frictional rollers secured to the oppo-

site ends of said lever arms and adapted to engage the slots in said disks, means for rotating said disks to raise or lower the head rest, and springs secured to said lever arms for holding the head rest in elevated position.

2. A head rest for beds and the like comprising a U-shaped frame, means for laterally adjusting said frame, brackets secured to the side rails of the bed, a polygonal shaft, adjustable collars adjacent the ends of said shaft journaling the same in said brackets, spirally slotted disks rigidly mounted on the ends of said shaft, means for adjusting the length of said shaft, pivotally mounted lever arms adjustably secured at one end to the U-shaped frame, friction rollers mounted on the opposite ends of said levers and adapted to engage in the slots in said disks, handles for rotating said disks to raise or lower the head rest, a second pair of brackets secured to the side rails of the bed, and compression springs secured to said lever arms at one end and to said second brackets at the opposite end, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN G. RYAN.

Witnesses:

ROBERT VAN SANDS,
W. S. ODENKIRK.