

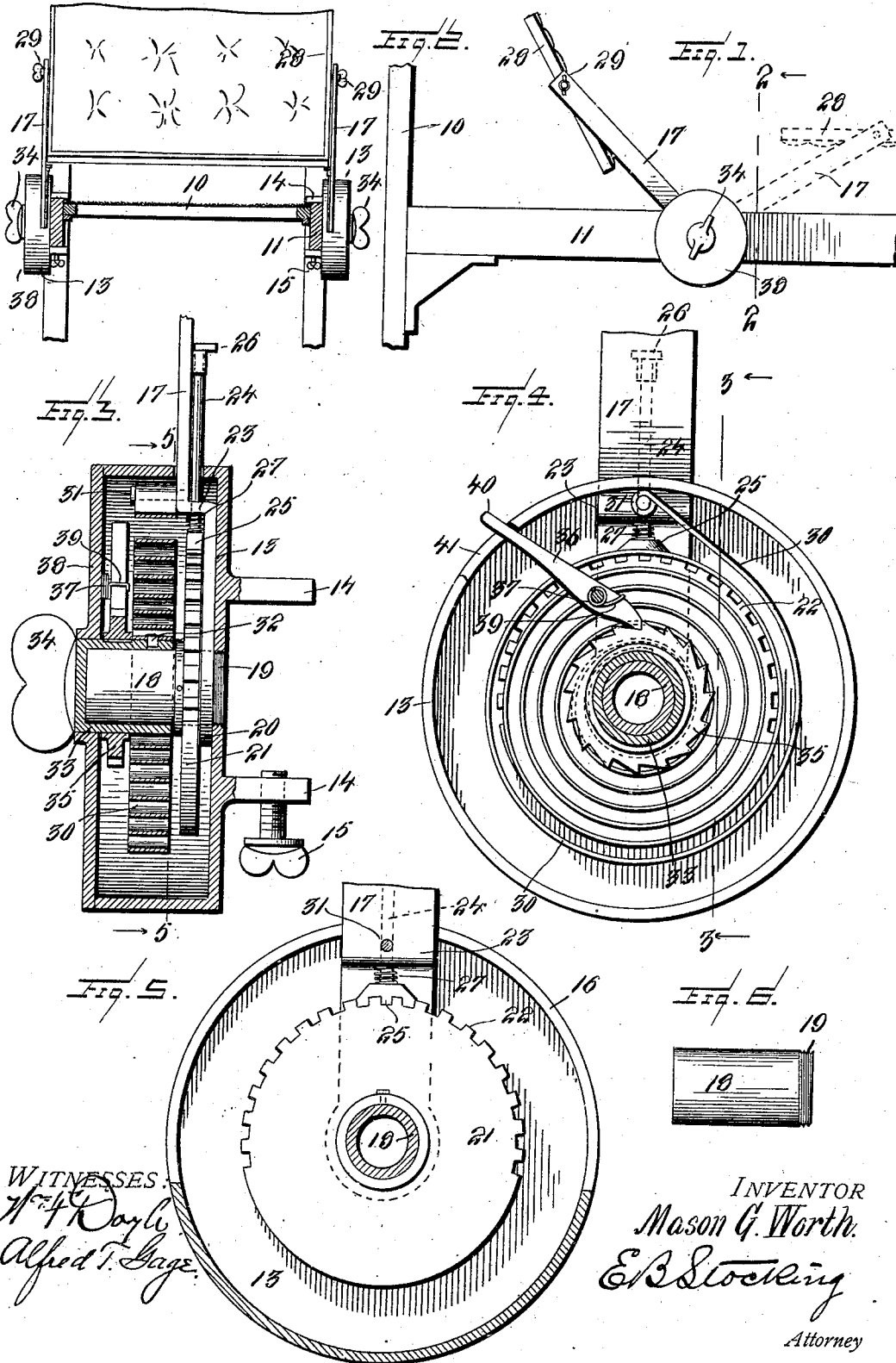
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HEAD REST.

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933,811.

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WITNESSES:
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UNITED STATES PATENT OFFICE.

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HEAD-REST.

933,811.

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To all whom it may concern:

Be it known that I, MASON G. WORTH, a citizen of the United States, residing at New York, county of New York, and State of New York, have invented certain new and useful Improvements in Head-Rests, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a head rest, and particularly to an attachment applicable to bed frames in which the rest is raised and adjusted by a spring connection adapted to be conveniently controlled by the person occupying the bed.

The invention has for an object to provide a novel and improved construction of head rest wherein the raising spring and rest supporting arms are mounted upon a single member together with the holding device for said arms, and a tension controlling device for said spring, thus providing a simple, compact and efficient construction whereby the rest may be raised to any desired elevation and there locked in position by the occupant of the bed.

A further object of the invention is to adjustably mount the rest upon its supporting arms so that it may be used as a table or disposed at any desired inclination relative to the arms.

Other and further objects and advantages of the invention will be hereinafter fully set forth and the novel features thereof defined by the appended claims.

In the drawing:—Figure 1 is a side elevation showing the rest applied to a bed frame; Fig. 2 is a vertical section on line 2—2, Fig. 1; Fig. 3 is an enlarged section on line 3—3, Fig. 4; Fig. 4 is an elevation of the mounting casing with the outer cover removed; Fig. 5 is a vertical section on line 5—5, Fig. 3; Fig. 6 is a detail of the supporting bearing carried by the casing for the several parts.

Like numerals refer to like parts in the several views of the drawing.

The numeral 10 designates a bed which may be of any desired construction or configuration and provided with side rails 11 of the usual character to which this invention is applied at opposite sides as an attachment thereto. The attachment comprises a supporting plate or casing 13 provided with laterally projecting lugs 14 adapted to em-

brace the bed rail 11, as shown in Fig. 2, one of these lugs being provided with a clamping screw 15 by which the parts are held in position. This plate or casing is provided at its upper portion with a slot or opening 16 extending for a portion of its circumference in order to permit a proper swinging of the rest supporting arms 17 mounted therein. This arm 17 is loosely mounted upon the bearing 18 which is threaded at 19 into the plate 13 and may, if desired, be formed tubular, as shown in Fig. 4. The lower end 20 of the supporting arm is loosely mounted to rotate or oscillate on its bearing, while secured to the bearing directly adjacent to the arm pivot is a toothed holding rack 21 which may be provided with any desired number of teeth 22 consistent with the arc of travel of the arm 17. This arm directly above the rack is provided with a laterally deflected portion 23 through which the rod 24 of the locking pawl 25 extends, this rod being provided with an operating handle 26 in convenient position for movement by the occupant of the bed. The pawl 25 is provided with one or more teeth to engage those of the holding rack, and is held in such engagement by a spring 27 extending between the under face of the portion 23 and the top of the pawl. When this pawl is removed from engagement with the rack 22 during the swinging movement of the arm it travels in an arc parallel with that of the holding rack. The upper end of the arm 17 is provided with a head rest 28 which is pivoted thereon for adjustment at any desired inclination and held in its adjusted position by a suitable tension device at its pivot, for instance, the thumbnut 29. This rest may be provided for service in different positions so that when thrown into a horizontal position, as shown by dotted lines in Fig. 1, it will form a convenient bed table directly in front of the occupant of the bed.

For the purpose of automatically raising the rest supporting arm 17 to any desired elevation, a spring of any desired character may be disposed within the casing, for instance, a flat coiled spring 30. This spring is attached at one end to a pin 31 extending laterally from the lever, and at its opposite end is secured at 32 to a sleeve 33 rotatably mounted upon the pivot 18. This sleeve is provided with an operating head or handle

34 by which the tension of the spring may be adjusted through a rotation of the sleeve which is held in its adjusted position by means of the ratchet wheel 35 secured thereon and cooperating with the pawl 36. This pawl is pivotally mounted upon the pin 37 carried by the plate 38 at the front of the casing and held in contact with the ratchet by the spring 39 extending about the pawl pivot. The pawl has an operating end 40 extending through an opening 41 in the casing 13.

In the operation of the invention, it will be seen that when the lifting arm is released from the holding rack, the spring tension thereon will raise the head rest to the desired elevation at which position it may be locked by releasing the rod of the locking pawl, and the arc of travel of this supporting arm is sufficient to allow the rest to be used either as a head rest at the back of the occupant of the bed, as shown in Fig. 1, or as a table before him, as shown by dotted lines in that figure. The tension of this raising spring may be increased by rotating the sleeve upon which it is mounted which sleeve is held in position by the cooperating ratchet and pawl, and the tension may be released or reduced by a proper operation of this pawl. It will be seen that the invention presents a simple, compact and efficient form wherein the spring is disposed directly upon the pivotal axis of the rest arm thereby permitting the mounting of the parts in a casing of simple and convenient form adapted for direct application to the side rails of a bed and not requiring any other connection therewith. The spring casings being deflected on opposite sides and connected to the head rest, as shown in Fig. 2, can be readily removed and replaced at any time, and are applicable to any character of bed, or other furniture to which it may be desired to apply them.

Having described my invention and set forth its merits, what I claim and desire to secure by Letters Patent is:—

1. A head rest comprising a plate provided with a laterally disposed fixed pivot upon one face and attaching means upon the opposite face thereof, a swinging arm mounted upon said pivot and provided with a rest at its upper end, and a spring having a coiled portion surrounding said pivot and connected at one end to said arm intermediate its pivot and said rest and having its opposite end connected to a device supported by a member on said plate.

2. A head rest comprising a plate provided with a laterally disposed fixed pivot upon one face and attaching means upon the opposite face thereof, a swinging arm mounted upon said pivot and carrying a rest at its upper end, a spring mounted upon said pivot and connected at one end to said arm intermediate its pivot and said rest, and

adjustable means carried by said plate and connected to the opposite end of said spring.

3. A head rest comprising an attaching plate, a pivot carried thereby, a swinging arm rotatably mounted on said pivot, a spring mounted upon said pivot and connected to said arm, a locking rack secured to said pivot, a pawl carried by said arm to engage said rack, and a rotatable member to which one end of said spring is connected, the opposite end thereof being secured to said arm.

4. A head rest comprising an attaching plate, a pivot carried thereby, a swinging arm rotatably mounted on said pivot, a spring mounted upon said pivot and connected to said arm, a locking rack secured to said pivot, a pawl carried by said arm to engage said rack, a rotatable member to which one end of said spring is connected, the opposite end thereof being secured to said arm, means carried by said member to rotate the same, a ratchet upon said member, and a pawl carried by a relatively fixed part to engage said ratchet.

5. A head rest comprising an attaching plate, a pivot carried thereby, a swinging arm rotatably mounted on said pivot, a spring mounted upon said pivot and connected to said arm, a locking rack secured to said pivot, a pawl carried by said arm to engage said rack, a rotatable member to which one end of said spring is connected, the opposite end thereof being secured to said arm, means carried by said member to rotate the same, a ratchet upon said member, a pawl carried by a relatively fixed part to engage said ratchet, and means to clamp said plate upon a bed frame.

6. In a device of the class described, an attaching plate provided with a laterally disposed pivot, an arm mounted to swing upon said pivot, a spring mounted upon the pivot to raise said arm, a head rest secured to said arm, a holding rack secured to said pivot, and a pawl having an operating rod carried by said arm to engage said rack.

7. In a device of the class described, an attaching plate provided with a laterally disposed pivot, an arm mounted to swing upon said pivot, a head rest secured to said arm, a holding rack secured to said pivot, a pawl having an operating rod carried by said arm to engage said rack, and a coiled tension spring secured to a relatively fixed part and to said arm.

8. In a device of the class described, an attaching plate provided with a laterally disposed pivot, an arm mounted to swing upon said pivot, a head rest secured to said arm, a holding rack secured to said pivot, a pawl having an operating rod carried by said arm to engage said rack, a coiled tension spring secured to a relatively fixed part and to said arm, a sleeve rotatably mounted

upon said pivot and connected to said spring, and means for holding said sleeve in adjusted position.

9. In a device of the class described, an
5 attaching plate provided with a laterally
disposed pivot, an arm mounted to swing
upon said pivot, a head rest secured to said
arm, a holding rack secured to said pivot, a
10 pawl having an operating rod carried by
said arm to engage said rack, a coiled ten-
sion spring secured to a relatively fixed part
and to said arm, a sleeve rotatably mounted
upon said pivot and connected to said spring,
15 a ratchet secured to said sleeve, and a hold-
ing pawl mounted to engage said ratchet.

10. In a device of the class described, a
supporting frame secured to a fixed part and
having a pivot extending therefrom, a rest
arm mounted upon said pivot for rotative
20 adjustment, a segmental rack mounted upon
the axis of said pivot, a head rest carried
by said arm and mounted for rotatable ad-
justment thereon, means for clamping said
rest in adjusted position upon said arm, and
25 a ratchet secured to a fixed part of said
mechanism for securing said parts in fixed
position.

11. In a device of the class described, a
head rest casing secured to the bed frame
30 and having a lateral pivot therefrom, an
arm rotatively mounted upon said pivot and
having a lateral projection, a segmental
holding rack secured to said pivot, a sleeve
rotatably mounted upon said pivot, and a
35 spring secured at one end to said sleeve and
at its opposite end to said lateral projection
from said arm.

12. In a device of the class described, a
head rest casing secured to the bed frame
40 and having a lateral pivot therefrom, an arm
rotatively mounted upon said pivot, a cir-
cumferential holding rack secured to said
pivot, a sleeve rotatably mounted upon said
pivot, a spring secured at one end to said
45 sleeve and at its opposite end to a lateral
projection from said arm, a ratchet wheel
secured to said sleeve, and a spring actuated
pawl normally engaging said ratchet wheel
and having a projected operating handle.

13. In a device of the class described, a
head rest casing secured to the bed frame
and having a lateral pivot therefrom, an
arm rotatively mounted upon said pivot, a
50 circumferential holding rack secured to said
pivot, a sleeve rotatably mounted upon said
pivot, a spring secured at one end to said
sleeve and at its opposite end to a lateral

projection from said arm, a ratchet wheel
secured to said sleeve, a spring actuated
pawl normally engaging said ratchet wheel
60 and having a projected operating handle, an
operating head carried by said sleeve to
rotate it, and locking means carried by the
arm to engage the holding rack thereof.

14. In a device of the class described, an
65 attaching plate provided with parallel se-
curing lugs at one side thereof, a clamping
screw mounted in one of said lugs, a pivot
carried by said plate and extending laterally
therefrom, a holding wheel secured to said
70 pivot, a rest supporting arm mounted to
swing upon said pivot and having a laterally
deflected portion above said wheel, a locking
pawl disposed between said portion and
wheel, an operating rod for said pawl car-
75 ried by the rest supporting arm, a sleeve
rotatably mounted upon said pivot, a coiled
tension spring secured to said sleeve at one
end and to a laterally projecting pin from
said arm at its opposite end, and means for
80 preventing rotation of said sleeve.

15. In a device of the class described, an
attaching plate provided with parallel se-
curing lugs at one side thereof, a clamping
screw mounted in one of said lugs, a pivot
85 mounted in said plate and extending later-
ally therefrom, a holding wheel secured to
said pivot, a rest supporting arm mounted
to swing upon said pivot and having a lat-
erally deflected portion above said wheel, a
90 locking pawl disposed between said portion
and wheel, an operating rod for said pawl
carried by the rest supporting arm, a sleeve
rotatively mounted upon said pivot, a coiled
tension spring secured to said sleeve at one
95 end and to a laterally projecting pin from
said arm at its opposite end, a ratchet wheel
secured to said sleeve, and a cooperating
pawl mounted upon a fixed part to engage
said wheel.
100

16. In a device of the class described, an
attaching plate provided with a pivot, a rest
supporting arm carried by said pivot, an ele-
vating spring mounted upon said pivot and
connected to said arm, a rest pivotally con-
105 nected to the free end of said arm, and
means for clamping said rest in its adjusted
position for use as a back rest or table.

In testimony whereof I affix my signature
in presence of two witnesses.

MASON G. WORTH.

Witnesses:

FRANK G. AT LEE,
LEWIS HODGES.