W. V. KNOWLES.

CREEPER.

APPLICATION FILED NOV. 12, 1915. RENEWED MAY 22, 1919.

1,327,103. Patented Jan. 6, 1920.

Fig. 1.

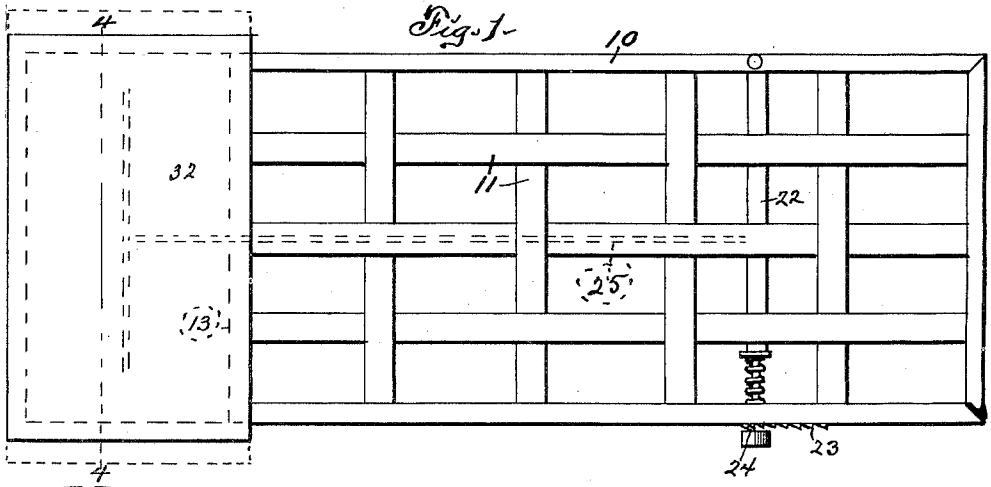


Fig. 2.

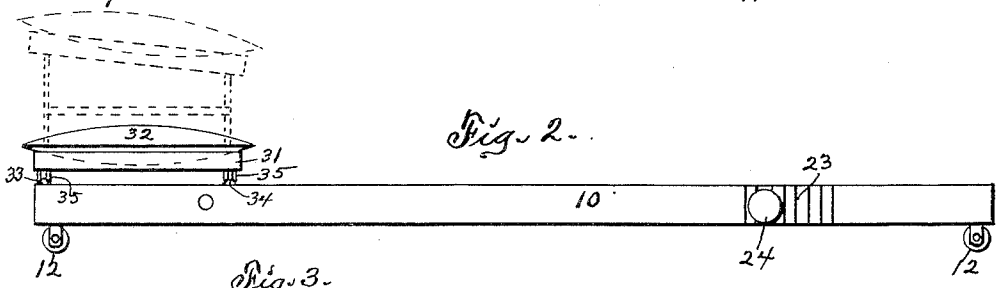


Fig. 3.

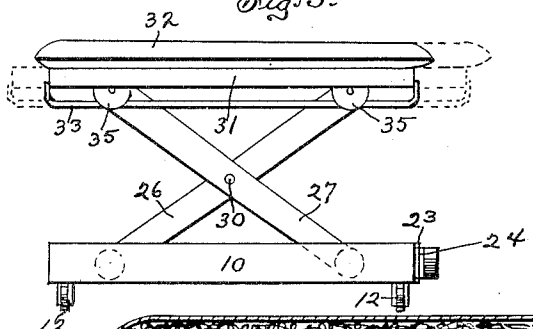
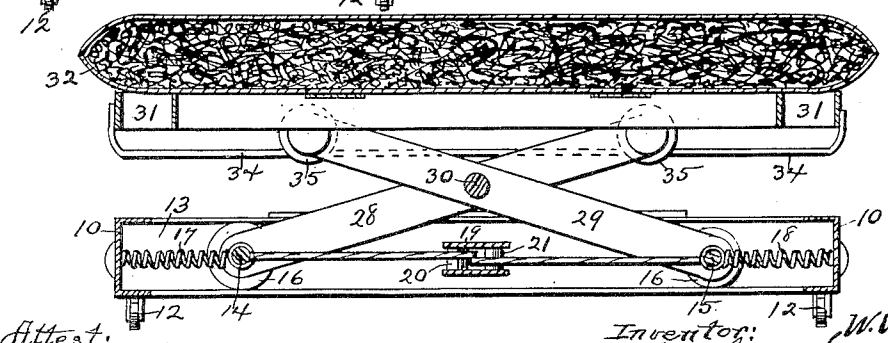


Fig. 4.



Attest:
H. E. Sweet.
L. L. Leibrock.

Inventor:
W. V. Knowles,
By Silas E. Sweet.
Atty

UNITED STATES PATENT OFFICE.

WILLIAM VICTOR KNOWLES, OF HUBBARD, IOWA.

CREEPER.

1,327,103. Specification of Letters Patent. Patented Jan. 6, 1920.

Application filed November 12, 1915, Serial No. 61,043. Renewed May 22, 1919. Serial No. 299,078.

To all whom it may concern:

Be it known that I, WILLIAM V. KNOWLES, citizen of the United States of America, and resident of Hubbard, Hardin county, Iowa, have invented a new and useful Creeper, of which the following is a specification.

The object of this invention is to provide means for raising and lowering and adjusting the height of a pillow on a creeper.

A further object of this invention is to provide lever mechanism adapted for manual actuation for raising, lowering and adjusting the height of a pillow on a creeper.

A further object of this invention is to provide means for adjusting a pillow on a creeper on inclined lines relative to the body of the creeper.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

Figure 1 is a plan of the complete device. Fig. 2 is a side elevation of the same, dotted lines showing the pillow in elevated position. Fig. 3 is an end elevation of the device, the pillow being shown in elevated position. Fig. 4 is a detail section on the indicated line 4—4 of Fig. 1.

Throughout this specification the word "creeper" is employed generically as covering all kinds of vehicles on which an operator reclines beneath and moves to and fro relative to an automobile or other machine for the purpose of inspecting or repairing or assembling the same from beneath it.

In the construction of the device as shown the numeral 10 designates a recumbent frame of generally rectangular form, which frame is latticed from side to side and from one end toward the other end to form a body, bed or support for a person in recumbent, reclining or inclining position. The frame 10 preferably is formed of channel bars rigidly connected and the latticing preferably is done with wide flat slats 11 secured at their ends to the frame. The frame 10 preferably is supported by casters 12 on which it and its occupant may travel about readily and easily. A channeled bar 13 is fixed at its ends to the sides of the frame 10 and extends across said frame parallel with the head-end thereof. Rods 14, 15 are mounted parallel with each other across the space between the bar 13 and head-end of the frame 10 and rollers 16 on the ends of said rods engage in and travel longitudinally of the channels of said bar and head-end. Retractile coil springs 17, 18 connect the rods 14, 15 with the sides of the frame 10 and tend to separate said rods. A bracket 19 is fixed to and connects the central portions of the bar 13 and head-end of the frame and pulleys 20, 21 are pivoted in said bracket and spaced from each other on a line transversely of the frame 10. A lever 22 is pivoted at one end to one side of the frame 10 near the foot thereof, and extends across said frame and through the opposite side thereof. Ratchet and pawl devices (preferably spring held and manually released) connect the outer end of the lever 22 to the frame, the ratchet 23 preferably being formed on the frame and the pawl 24 being carried by and movable longitudinally of the lever. A draft-wire 25 is secured at its center to the central portion of the lever 22, is rove through the pulleys 20, 21, and the ends thereof extend in opposite directions transversely of the frame and are secured to the central portions of the rods 14, 15. By means of the draft-wire 25 and lever 22 manually operated, the rods 14, 15 may be drawn toward each other against the tension of the springs 17, 18. Legs 26, 27 are pivoted at their lower ends to the outer end portions of the rods 14, 15 and extend across each other at their centers. Legs 28, 29, of less length than the legs 26, 27, are pivoted at their lower ends to inner end portions of the rods 14, 15 and extend across each other at points above their centers. A rod 30 is pivoted at its ends to the legs at the points of crossing thereof, and those portions of the legs between said rod and the rods 14, 15 are of the same length, so that the rod 30 is at all times parallel with the other rods. A pillow frame 31 is provided and preferably is rectangular in shape and of a length corresponding to the width of the frame 10. The pillow frame 31 is provided with a pad 32 of upholstering of any desired character. The pillow frame 31 is formed with tracks 33, 34 along and beneath its long sides, and the upper ends of the legs 26, 27, 28, 29 are equipped with rollers 35 within and adapted for travel on said tracks.

When the rods 14, 15 are drawn toward

each other, the crosses formed by the legs are contracted at their lower ends, thus, on the principle of lazy-tongs raising the pillow-frame 31 and pad or pillow 32 thereon. Owing to the differences in the lengths of those portions of the crosses extending above the rod 30, the outer margin of the pillow-frame is raised or lowered more rapidly than the inner margin thereof, thus providing for inclination of the pillow relative to the body of the creeper when said pillow is raised. Hence greater altitude of the pillow will result in corresponding greater inclination of the pillow relative to the body. This provision is a great convenience to the operator as it provides means for supporting his body in inclined position restfully and also provides a support for an arm which is available profitably on many occasions. When the crosses, of the legs, are extended, opposite pairs of rollers being brought closer to each other, the pillow frame may be moved farther transversely of the frame (dotted lines Fig. 3) if desired to support the operator's head in a position out beyond the sides 10 of the base.

Any suitable means may be employed to operate the raising and lowering means, and I do not desire to be limited to the specific construction herein described.

I claim as my invention—

1. A creeper formed with a body, spaced lazy-tongs on one end portion of said body, a pillow frame wholly supported on said lazy-tongs and movable thereon transversely of said body, and a pillow on said frame.

2. A creeper formed with a body, spaced lazy-tongs loosely mounted on said body, means for expanding and contracting said lazy-tongs, and a pillow frame loosely mounted on and wholly supported by said lazy-tongs, said pillow frame being movable on said lazy-tongs transversely of said body.

3. A creeper formed with a movable body, a pillow frame thereon, and spaced connected lazy-tongs interposed loosely between said body and pillow frame, whereby said pillow frame is caused to be adjustable vertically and with varying inclination relative to said body, the inner margin of said pillow frame being movable in a vertical plane.

4. A creeper formed with a movable body and a pillow frame thereon, said pillow frame being adjustable vertically with varying inclination and also being adjustable transversely of said body.

5. A creeper composed of a body having casters, spaced lazy-tongs on said body, a pillow frame wholly supported on said lazy-tongs, a pillow on said frame, and lever operated rope and pulley mechanism for operating said lazy-tongs.

6. A creeper composed of a body having casters, spaced lazy-tongs of unequal length on said body, a pillow frame wholly supported on said lazy-tongs, a pillow on said frame, and lever operated rope and pulley mechanism for operating said lazy-tongs, whereby the pillow frame may be adjusted perpendicularly and on inclined lines relative to the body.

7. A creeper composed of a body having casters, spaced lazy-tongs on said body, a pillow frame wholly supported on said lazy-tongs, a pillow on said frame, lever mechanism on said body for operating said lazy-tongs in one direction and springs for operating said lazy-tongs in the opposite direction.

8. In a creeper, a body frame having spaced channeled cross-bars at one end, lazy-tongs of unequal length spaced in respect of the length of the body frame, said lazy-tongs being formed with rollers on their extremities, the lowermost rollers being adapted for travel in the channeled cross-bars, a pillow frame formed with tracks adapted to receive for travel therein the uppermost rollers on the lazy-tongs, said pillow frame being wholly supported on and loose relative to said uppermost rollers whereby said frame may be moved transversely of the body frame independently of the lazy-tongs, a pillow on the pillow frame, and operating devices for expanding and contracting the lazy-tongs.

9. In a creeper, a body frame having spaced channeled cross-bars at one end, casters supporting said body frame, lazy-tongs of unequal length spaced in respect to the length of the body frame, said lazy-tongs being formed with rollers on their extremities, the lowermost rollers being adapted for travel in the channeled cross-bars, a pillow frame formed with tracks adapted to receive for travel therein the uppermost rollers on the lazy-tongs, said pillow frame being wholly supported on and loose relative to said uppermost rollers whereby said frame may be moved transversely of the body frame independently of the lazy-tongs, and lever operated rope and pulley devices for expanding and contracting the lazy-tongs.

Signed by me at Hubbard, Iowa, this 7th day of July, 1915.

WILLIAM VICTOR KNOWLES.

Witnesses:

EARL S. DAUGHHETEE,

EMRY G. WHITNEY.