April 29, 1969 J. E. RAMSEY 3,441,014

TILTABLE COT WITH RECIPROCAL MOTION ATTACHMENT

Filed March 31, 1967

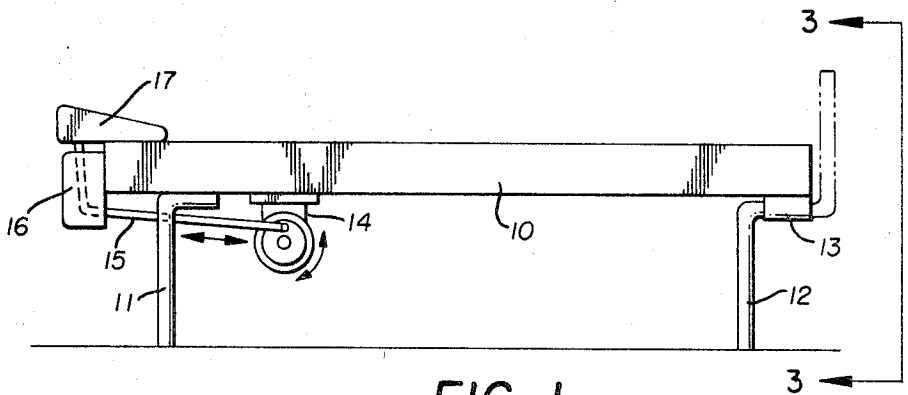


FIG. 1

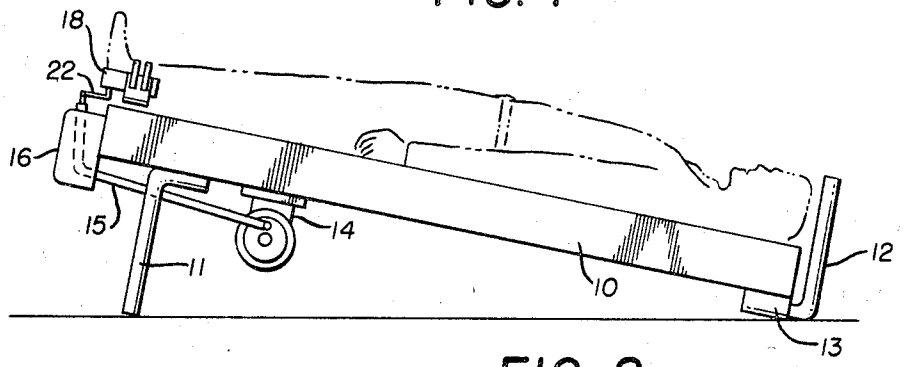


FIG. 2

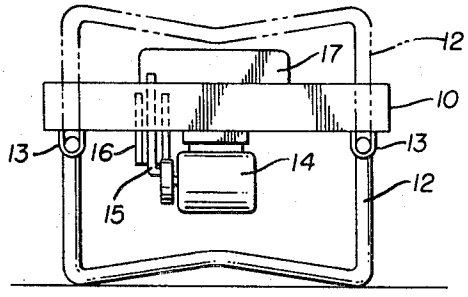


FIG. 3

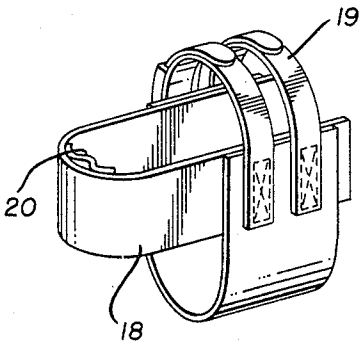


FIG. 4

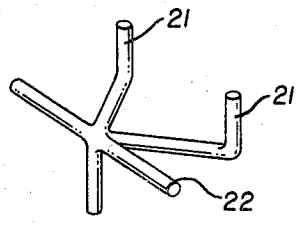


FIG. 5

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TILTABLE COT WITH RECIPROCAL MOTION ATTACHMENT

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ABSTRACT OF THE DISCLOSURE

The tiltable cot with reciprocal motion attachment comprises a cushioned structure having fixed legs at one end and movable legs at the other end, arranged to hold the cot on a horizontal or an inclined plane as desired. A device including a motor and crank mechanism is positioned adjacent the foot of the cot and connected to stirrups for engagement on the feet and angles of a person reclining on the cot. The arrangement of the cot in inclined position with the reciprocal motion means at the highest point thereof is such that helpful manipulation is imparted to the user through the alternate pushing and pulling motion longitudinally of the cot as imparted to the wearer by the reciprocal motion means and the stirrups.

The invention relates to a tiltable cot with a reciprocal motion attachment and more particularly to a tiltable cot wherein a reciprocal motion means is arranged to impart limited longitudinal motion to a person reclining on the cot with his feet at the highest point on the same.

A further object of the invention is the provision of a cot having fixed legs on one end and adjustable legs on the other so that the cot may be positioned in horizontal or inclined position.

A still further object of the invention is the provision of a reciprocal motion attachment for a cot which incorporates a crank motion for moving a desired body engaging member or members longitudinally of the cot in a controlled rhythmic motion.

The tiltable cot with reciprocal motion attachment disclosed herein is particularly useful in helping individuals relax and to ease muscular tension through the use of the body weight in opposing a gentle repetitious longitudinal motion pulling against the person's weight.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being the intention to cover all changes and modifications of the example of the invention herein chosen for purposes of the disclosure, which do not constitute departures from the spirit and scope of the invention.

The invention is illustrated in the accompanying drawing, wherein:

FIGURE 1 is a side elevation of the tiltable cot with reciprocal motion attachment in horizontal position, broken lines indicating an alternate position of the legs on one end of said cot.

FIGURE 2 is a side elevation of the tiltable cot in inclined position with broken lines indicating the position of a person lying thereon.

FIGURE 3 is an end elevation on line 3—3 of FIGURE 1.

FIGURE 4 is a perspective detail on an enlarged scale showing one of a pair of stirrups as seen in FIGURE 2.

FIGURE 5 is a perspective view of a bifurcated attachment member as seen in FIGURE 2, and to which a pair of the stirrups as seen in FIGURE 4 may be attached.

By referring to the drawings, and FIGURES 1, 2 and 3 in particular, it will be seen that a cot has been disclosed which comprises a main body member **10** having a fixed leg construction **11** at the foot end thereof, and a movable leg construction **12** at the head end thereof. The movable leg construction **12** is secured to the body **10** of the cot by means of sleeves **13** and the engaging ends of the leg construction **12** are horizontal, as seen in FIGURE 1, so that they engage the sleeves **13** whether the legs extend vertically downwardly beneath the body **10** of the cot or vertically upwardly in spaced relation to the head end thereof, as seen in broken lines in FIGURE 1.

Still referring to FIGURE 1 of the drawing, it will be seen that an electric motor and a crank arrangement **14** are mounted beneath the cot adjacent the head end with a crank arm **15** extending beyond the foot of the cot and into a supporting and guiding housing **16**. The upper end of the crank arm **15** is shown engaged in a slidable wedge-shaped member **17** which may be used as a source of desirable reciprocal motion on the person using the cot.

By referring now to FIGURE 2 of the drawings, it will be seen that the leg assembly **12** on the head end of the cot has been reversed so that the head end of the cot is at a lower level than the foot end, and that a person reclining on the cot as shown in broken lines, will lie with his head and body at a lower position than his feet.

A pair of stirrups **18**, one of which is shown in perspective detail in FIGURE 4 of the drawings, are positioned about the patient's feet and ankles and secured thereto by fasteners or connecting straps **19**. Each stirrup is provided with a pocket-forming partition **20** which provides space for engagement with an upstanding end **21** of a bifurcated adapter member **22** which is engaged in the upper end of the crank arm **15** as seen in FIGURE 2 of the drawings. The bifurcated adapter member is also seen in perspective in FIGURE 5 of the drawings.

It will be observed that operation of the electric motor **14** and crank thereon will move the crank arm **15** in a back and forth motion relative to the body **10** of the cot so that the stirrups **18** positioned on the feet of a person reclining thereon will impart the same movement to a person and thus gently move the person's body longitudinally opposed by the weight of the person.

It will thus be seen that a tiltable cot with a reciprocal motion attachment has been disclosed which meets the several objects of the invention, and having thus described my invention what I claim is:

1. A cot having fixed legs on one end and adjustable legs on the other end, whereby said other end of said cot may be positioned on the level of the end having the fixed legs or at a location therebelow; a reciprocal motion device including means for imparting longitudinal movement relative to said cot and positioned adjacent the fixed leg end of said cot and means on said reciprocal motion device engageable with a person's body, and specifically the feet and angles thereof, for imparting reciprocal longitudinal movement thereto in opposition to the weight of the person's body on the tilted cot, said means including a crank, a crank arm and stirrups on said person and means interconnecting said crank arm and said stirrups.

2. The tiltable cot with reciprocal motion attachment set forth in claim **1** and wherein the end of the said cot having the adjustable legs is provided with horizontally disposed sleeves and the legs have offset end portions at right angles thereto engaging said sleeves whereby said legs may be positioned in depending or inverted upward relation to said cot.

3. The tiltable cot with reciprocal motion attachment set forth in claim **1** and wherein the reciprocal motion mechanism comprises an electric motor and a crank for moving said crank arm and the means interconnecting the stirrups

and the crank arm comprise a bifurcated member engageable in said stirrups and crank arm.

4. The tiltable cot with reciprocal motion attachment set forth in claim 1 and wherein a body-engaging member is directly engaged on said crank arm and slidably positioned on said cot.

References Cited

UNITED STATES PATENTS

2,845,063	7/1958	Allen	128—32
1,602,679	10/1926	Kibler	5—114
2,815,020	12/1957	Barkschat	128—25
2,983,930	5/1961	Porritt	5—62 X
3,075,205	1/1963	Canova	5—109
3,081,085	3/1963	De Girolamo	5—62 X
3,286,708	11/1966	Gartner	128—24

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