

April 21, 1942.

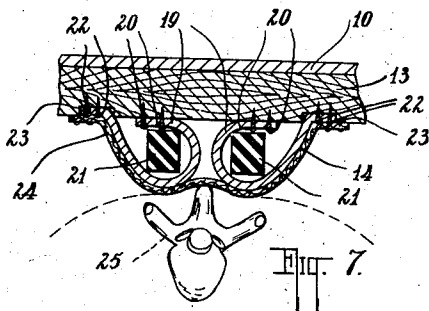
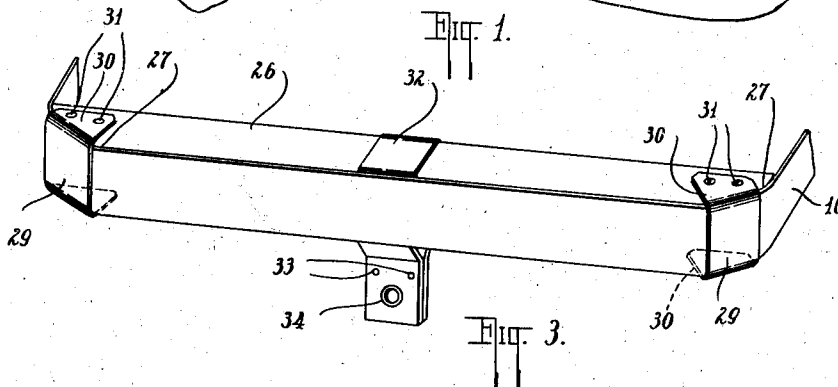
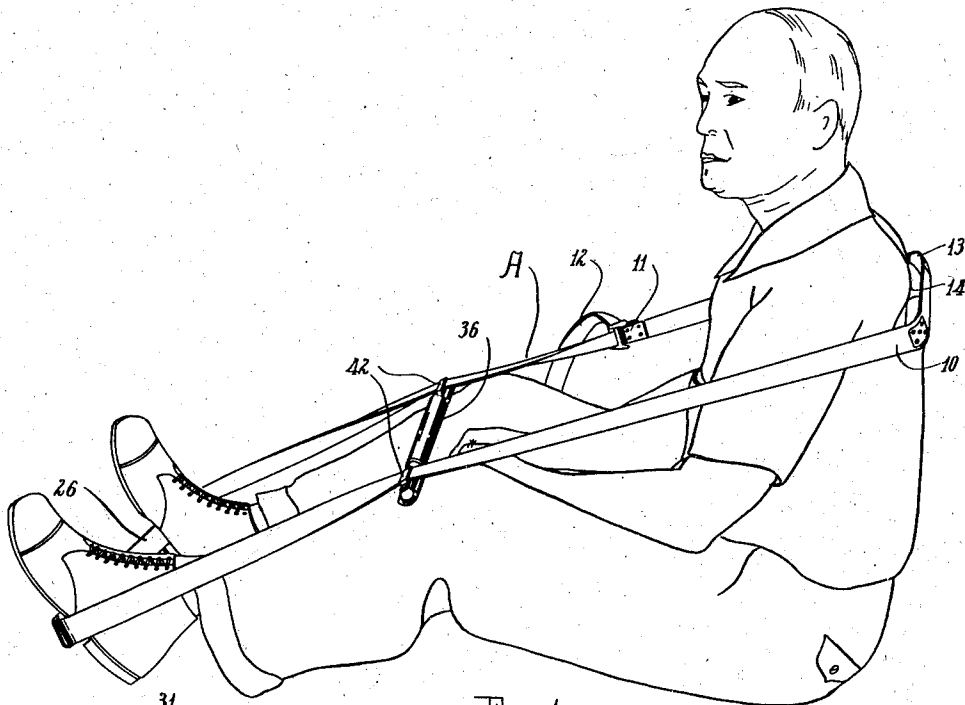
H. E. WILDERMUTH

2,280,274

VERTEBRAE MANIPULATING AND MASSAGING DEVICE

Filed Feb. 12, 1940

2 Sheets-Sheet 1



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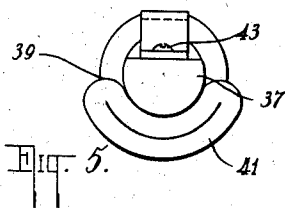
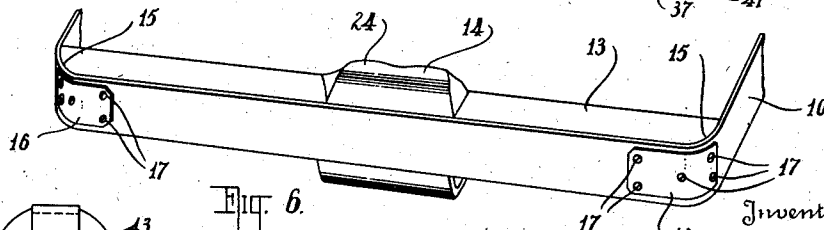
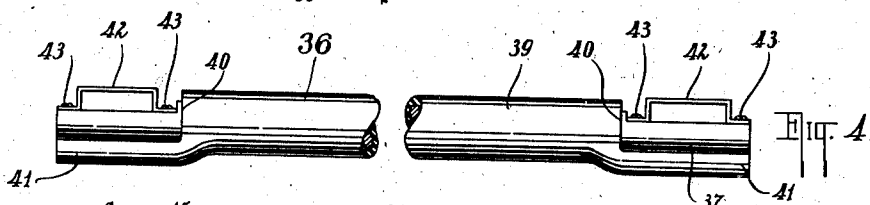
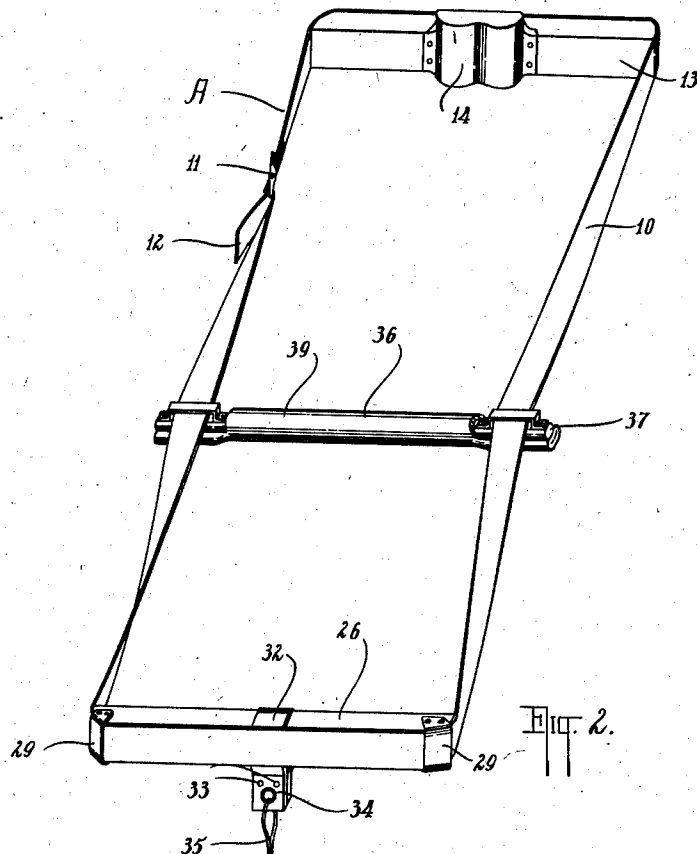
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VERTEBRAE MANIPULATING AND MASSAGING DEVICE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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VERTEBRAE MANIPULATING AND
MASSAGING DEVICE

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Application February 12, 1940, Serial No. 318,417

3 Claims. (Cl. 128—69)

My invention relates to an improvement in vertebrae manipulating and massaging device, wherein it is desired to provide an apparatus capable of correcting misplaced vertebrae and providing a means which may be self-operated for massaging the back.

It is a purpose of the present invention to provide an apparatus for applying a considerable pressure against the back for massaging and treating the back and which may be operated by the person desiring the treatment. My device is capable of correcting misplaced vertebrae and of massaging the tissue adjacent the spinal column, tending to relieve a stiff spinal column condition and to promote increased circulation in a manner to stimulate the nervous system to greater activity.

It is a purpose of my invention to provide a device capable of engaging the back adjacent the spinal column, and to provide a means for connecting this back engaging member for operation by the feet of the patient. Thus the patient may exert any desired pressure against his back to the limit of his strength and may adjust the pressure to suit any condition.

It is a purpose of my invention to provide a vertebrae manipulating device which is adjustable to fit persons of various statures. In preferred form my device includes a single belt or cable which may be adjusted in length to encircle the back and the feet of the patient while the patient is in a sitting position. By varying the length of this single strap or by adjusting the length of a pair of straps in case more than one strap is used, the device may be adjusted to fit any size of person.

It is a feature of my invention to employ a foot engaging member by means of which pressure may be applied, tending to pull the back engaging member to one side or to the other. Thus pressure may be used on either side of the vertebrae, tending to correct misalignment of the vertebrae and to massage the area of the back adjacent the spinal column.

It is a feature of my invention to provide a back massage device embodying a cross member which may extend across the body adjacent the knees of the patient. This cross member directs the line of pull upon the strap or straps from the cross member engaged by the feet and the massaging member engaging the back. Thus when pressure is relieved by the feet, the member engaging the back does not have the same tendency to drop downwardly completely off the

back, as it would if this knee engaging cross member were not provided.

It is a feature of my invention to provide a back engaging member embodying a pair of spaced resilient protruding members having a relieved portion therebetween in which the vertebrae may engage. By this means the vertebrae may be drawn into alignment by the proper massaging treatment.

It is a feature of my invention to provide a flexible exercising device embodying three transversely extending members one of which is designed to engage the back, one of which is designed to extend over the knees, and the third of which is designed to be engaged by the feet. It is a further feature of my invention that the member engaged by the feet may be provided with a means connected with the floor or other anchoring member so that the patient may lean rearwardly at a considerable angle without danger of falling backwards.

These and other objects and novel features of my invention will be more clearly and fully set forth in the following specification and claims.

In the drawings forming a part of my specification:

Figure 1 is a perspective view of my vertebrae manipulating and massaging device in operation.

Figure 2 is a perspective view of my device when not in use.

Figure 3 is a perspective view of the cross member designed for engagement with the feet.

Figure 4 is a side elevation view of the cross member designed for engagement with the knees.

Figure 5 is an end view of the cross member disclosed in Figure 4.

Figure 6 is a perspective view of the cross member designed to engage the back of the patient.

Figure 7 is a transverse section through the cross-member illustrated in Figure 6, showing the massaging device and its relation with the spine of a patient.

The vertebrae manipulating and massaging device A comprises a strap, belt, or cable 10, one end of which is equipped with a buckle 11 to accommodate the free end 12 of the strap 10. By means of the buckle 11 the length of the strap may be adjusted to accommodate various sizes of patients.

The strap 10 is connected to a cross member 13 provided with a back engaging pad 14. The strap 13 overlies the rear surface of the cross member 14 and this cross member 13 is provided with rounded ends 15 over which the strap 10

may fold. Reinforcing or clamping plates 16 are secured to the cross member 13 by screws 17 or other suitable means, these screws 17 extending through the strap 10 to secure the strap in definite fixed relation to the cross member 13.

The pad 14 in preferred form includes a pair of straps 19 secured by screws 20 or other suitable means to the front surface of the cross member 13. The straps 19 are formed of rubber or other suitable material in preferred form and are designed to encircle blocks or pads 21 of soft resilient material such as sponge rubber or the like. The other end of each of the straps 19 is connected by screws 22 or other suitable means in notches 23 in the front surface of the cross member 13. A flexible covering 24 is secured marginally to the cross member 13 and entirely encloses the straps 19 and the resilient blocks 21.

As will be seen in Figure 7 of the drawings, a space is provided between the resilient blocks 21 for engagement with the vertebrae diagrammatically indicated at 25. By transverse movement of the pad 14 with respect to the vertebrae 25, any misplaced vertebrae may be correctly aligned with the other vertebrae of the spinal column.

The strap 10 also extends over the transverse cross member 26. This cross member 26 is provided with inclined ends 27 over which the belt or strap 10 extends. A pair of substantially U-shaped loops or brackets 29 are connected to the ends of the cross member 26 and hold the strap 10 connected to this cross member. The loops 29 are provided with substantially parallel sides 30 which are connected to the edges of the cross member 26 by screws or bolts 31. The belt 10 may pass freely through the loops 29 and may move longitudinally with respect to the cross member 26.

A flexible loop 32 of belting or the like encircles the cross member 26 and extends below the same. The ends of this loop 32 are riveted together at 33 and a grommet 34 extends through the ends of the loop. A lacing or tie 35 may extend through the grommet 34 and be connected to a hook or any other anchoring means upon the floor. If desired, a hook may be extended directly through the grommet 34 to hold the cross member 26 from raising any considerable amount above the surface of the floor.

The cross member 36 is designed to connect the opposed sides of the strap 11 and to extend over the knees of the patient as illustrated in Figure 1 of the drawings. This cross member in the form illustrated comprises a substantially cylindrical rod 37 enclosed throughout the major portion of its length by a tubular padding member 39 of soft rubber or the like. As best illustrated in Figures 2, 4, and 5 of the drawings, the tube 39 is cut at 40 spaced from the ends of the bar 37 and the ends 41 of the tubing 39 are flattened and secured to the under surface of the bar 37. Middle loops 42 are secured by screws 43 or other suitable means to the bar 37 to accommodate the strap 10 which may pass freely there-through.

In operation, the belt 10 is positioned to encircle the body in the general manner illustrated in Figure 1 of the drawings. By holding the cross member 26 firmly with one foot and exerting pressure with the other foot, one side of the cross member 13 is pulled forwardly, tending to exert forward and side pressure from the pad 14 upon the spinal column. By moving the pad 14 vertically along the spine and repeating this

exercise, any vertebrae which are twisted with respect to the remaining vertebrae in one direction may be drawn into alignment with the remainder of the spinal column. The exercise may be repeated, exerting greater pressure to the opposite side and causing the misplaced vertebrae twisted in the opposite direction to be drawn into alignment with the remainder of the spinal column. Any desired amount of pressure may be exerted upon the back by the feet, and it will be understood that tremendous pressure may be exerted if it is so desired because of the force of the legs in the position illustrated.

The foregoing exercise tends not only to correct misplaced vertebrae, but also to massage the back adjacent the spinal column. Other exercises may also be performed in exercising the back such as exerting pressure with both feet and leaning the head back. The muscles of the back of the neck may also be massaged and treated in a similar manner.

It will be seen that the direction of pull upon the back is regulated by the position of the cross member 36 upon the knees. If the knees are relatively high and the cross member 36 is resting high upon the knees, the direction of pull upon the back is from a relatively high position. This is extremely useful in using the device, as in moving the cross member 13 downwardly along the spine, it is only necessary to lean forward and relieve the pressure upon the belt sufficiently to permit the cross member to slide downwardly a small amount. When the cross member has moved a sufficient distance, the pressure of the feet is again applied, stopping the downward movement of the cross member upon the back. As the line of pull is relatively high, downward movement of the cross member 13 may be stopped with comparative ease. If no such cross member is provided, the line of pull is always from the cross member 26, which is necessarily close to the floor. In such a case, the application of pressure by the feet does not as easily arrest the falling of the cross member upon the back, and this cross member is more difficult to adjust in the desired position.

The addition of the cross member 36 also permits numerous exercises to be performed which would be impossible without this member. When the cross member 36 is moved downwardly out of contact with the knees, the massaging device may be used in the same way as if no such cross member were provided. By varying the position of this cross member, the direction of pull upon the back may be varied and thus different muscles affected.

In accordance with the patent statutes, I have described the principles of construction and operation of my vertebrae manipulating and massaging device; and while I have endeavored to set forth the best embodiments thereof, I desire to have it understood that these are only illustrative of a means of carrying out my invention, and that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

1. A back massaging device comprising an elongated rigid transverse member, a pad thereupon designed to engage the back, a second elongated rigid transverse member designed to be engaged by the feet, a strap means secured longitudinally to said first named transverse member, slidably connected longitudinally to said second

named transverse member, and means for adjusting the length of said strap.

2. A back massaging and exercising device comprising a rigid elongated transverse member designed to be engaged by the back, a second rigid elongated transverse member designed to be engaged by the feet and a third rigid elongated transverse member designed to be engaged by the knees; a strap; means securing said strap longitudinally with respect to said first transverse member, and means slidably connecting said strap to the ends of said second and third transverse members; and means connecting the ends of said strap together to adjust the relative position of said transverse members.

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3. A back massaging and exercising device comprising a rigid elongated transverse member designed to engage the back, a second rigid elongated transverse member designed to engage the feet, and a third rigid elongated transverse member designed to engage the knees, a strap secured longitudinally with respect to said first transverse member, loops near the ends of said third transverse member through which said strap means may extend, means for slidably connecting said strap to the ends of said second transverse member, and means for adjustably connecting the ends of the strap together.

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