

A. R. HYATT.

COUCH.

APPLICATION FILED OCT. 6, 1913.

1,099,092.

Patented June 2, 1914.

Fig. 1.

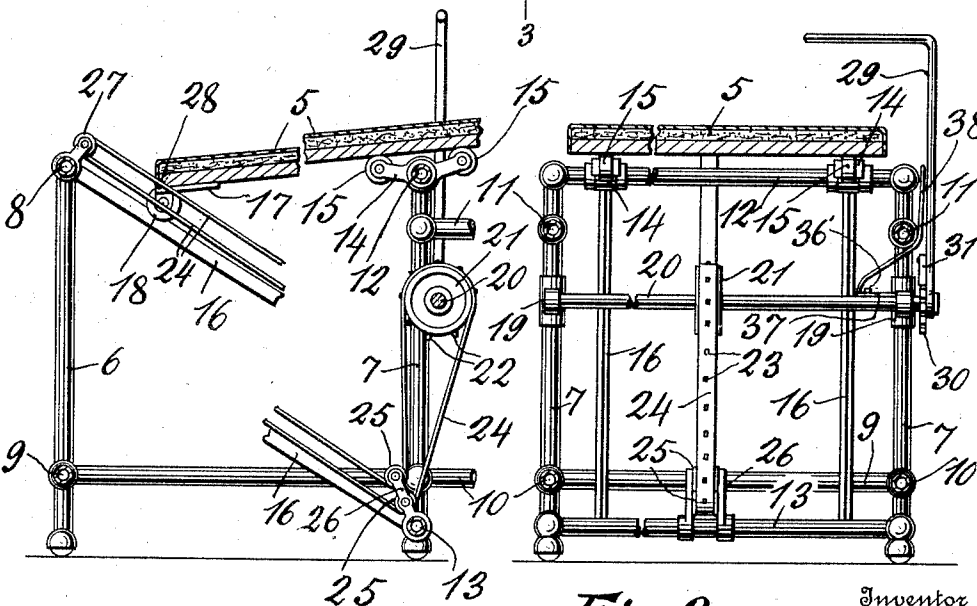
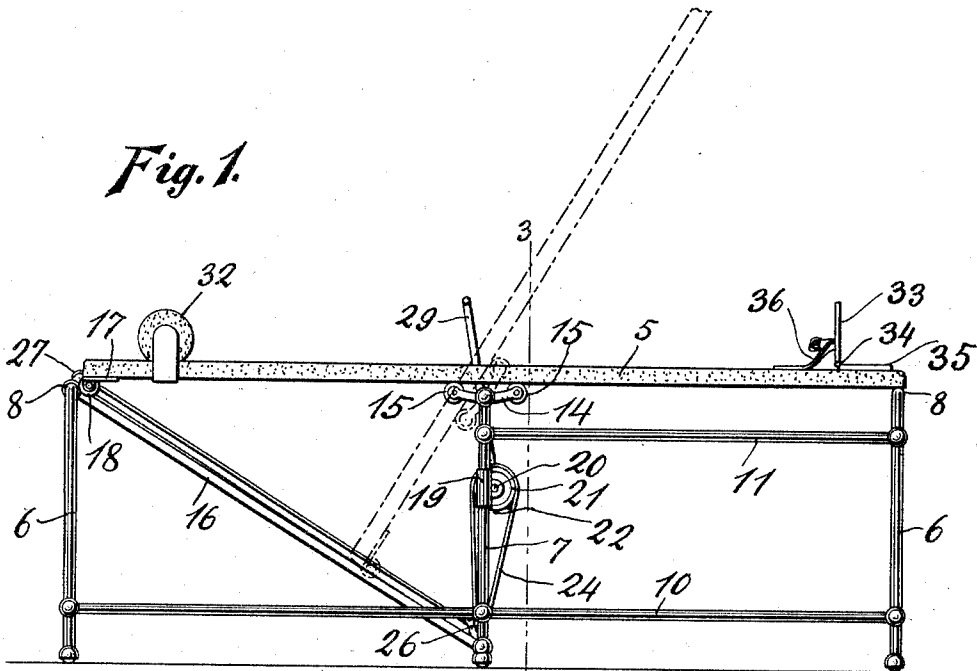


Fig. 3.

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Witnesses

Fig. 2.

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COUCH.

1,099,092.

Specification of Letters Patent.

Patented June 2, 1914.

Application filed October 6, 1913. Serial No. 793,673.

To all whom it may concern:

Be it known that I, ALBERT R. HYATT, a citizen of the United States, residing at Olds, in the county of Henry and State of Iowa, have invented certain new and useful Improvements in Couches, of which the following is a specification.

The couch which is the subject matter of the present application for patent is designed more particularly for the treatment of certain abdominal ailments by allowing the occupant to tilt the body to an inverted position.

It is the object of the present invention to provide a couch of this kind which is very simple in construction, and which can readily be adjusted by the occupant to the desired angle.

Other objects and advantages of the invention will be pointed out in the detailed description appearing hereinafter, and in order that the invention may be better understood, reference is had to the accompanying drawing in which—

Figure 1 is a side elevation of the couch; Fig. 2 is a longitudinal section through one end thereof, and Fig. 3 is a cross section on the line 3—3 of Fig. 1.

Referring specifically to the drawing, the couch comprises a tiltable top 5, suitably upholstered and supported by a frame composed of corner standards 6 and intermediate standards 7 suitably connected to form a rigid frame. As shown in the drawing the corner standards, at each end of the frame, are connected by top and bottom cross-rails 8 and 9, respectively, and longitudinal rails 10 connect the corner and intermediate standards at the sides of the frame, near the bottom thereof. Top longitudinal rails 11 connect the intermediate standards with the corner standards at the foot end of the frame. The intermediate standards are connected by top and bottom cross-rails 12 and 13, respectively. These frame members are all composed of piping or tubing.

On the top cross-rail 12 are mounted rocking frames 14 carrying rollers 15 at their outer ends. These frames extend transversely of the cross-rail and project from opposite sides thereof, as shown in Figs. 1 and 2, and the rollers are in contact with the under side of the top 5. A pair of rollers engages the top near each longitudinal edge, as shown in Fig. 3. These rollers form a support for the intermediate portion

of the top, the foot end being supported by the top cross-rail 8 at the foot end of the couch frame. The following support is provided for the head end of the top 5: Between the top cross-rail 8 at the head end of the couch frame and the bottom cross-rail 13 extend inclined parallel rails 16, the inclination of which latter is downward from the head end of the couch. To the under side of the top 5 are secured brackets 17 which support grooved rollers 18, which latter are mounted to travel on the rails 16. The intermediate standards 7 carry bearings 19 which support a transverse shaft 20 on which is fast a pulley 21 having projecting studs 22 on its periphery which enter apertures 23 in an endless belt 24 passing over said pulley. The two sides of the belt extend downward from the pulley and pass over guide pulleys 25 carried by a frame 26 supported by the bottom cross-rail 13. From the pulleys 25 the belt passes upward, parallel to the rails 16, to a pulley 27 carried by the cross-rail 8 at the head end of the couch frame. The upper run of the inclined portion of the belt is made fast to the head end of the top 5, as indicated at 28.

It will be evident from the foregoing that the head end of the top 5 may be tilted down by rotating the shaft 20 in one direction and upon rotating the shaft in the opposite direction the top is swung back to horizontal position. The shaft is operated by a ratchet lever 29 arranged so as to be within reach of the occupant of the couch. The shaft has a ratchet wheel 30 engageable by the pawl 31 of the lever, said pawl being reversible so that the shaft may be turned in both directions as hereinbefore described.

At the head end of the top 5 is removably fastened an upholstered roll 32 serving as a pillow or head rest. The roll also serves to keep the person from sliding down when in inverted position. A further protection to keep the body from sliding down comprises two sole-shaped boards 33 hinged at 34 to a board 35 fastened down on the top 5 at the foot end thereof, said sole-shaped boards carrying straps 36 for securing the person's feet.

The top 5 is normally in horizontal position, but it is adapted to be tilted as shown by dotted lines in Fig. 1 to lower the head portion and raise the foot portion. The rollers 15 serve as a fulcrum and they remain

in contact with the under side of the top by reason of their pivoted supports 14. As the top tilts the point of engagement of the rollers with the top gradually changes and comes nearer to the head end of the top, thus shortening the head end and lengthening the foot end, with the result that the body is kept in balance, the head and trunk which are the heaviest parts being on the short end, and the limbs on the long end. The arrangement is similar to a lever having a fulcrum which may be shifted to keep the lever balanced. The top can therefore be tilted as well as swung back to horizontal position by the occupant without any great effort.

In operation, the occupant lies flat on the top 5, and then by means of the lever 29 tilts the top until the body is inverted. The purpose of placing the body in an inverted position is the treatment of certain abdominal ailments, and more particularly the replacing of abdominal viscera which has been displaced downward. By inverting the body and bringing the force of gravity on the displaced organ inversely, the tendency is for the same to drop back to normal position and thus rest the connecting and supporting ligaments from the constant strain to which they may have been subjected. By hanging down by the feet, the ligaments of the limbs are stretched and the joints loosened, and even the vertebra and spinal column affected for the better by inverting the weight and the pull thereon.

In order to hold or lock the top 5 in horizontal position, the shaft 20 has a lug 36' which is engageable by a latch 37 carried by one of the standards 7. A suitable operating device, which may be a wire 38, is connected to the latch.

The preferred embodiment of the invention has been shown, but it is evident that many changes and modifications in the structural details may be made without a departure from the spirit and scope of the invention, as hereinafter claimed.

I claim:

1. A couch comprising a supporting frame, a tiltable body-supporting top, a rocking support with which the intermediate portion of the top is slidably engageable, and means connected to the top for tilting the same.

2. A couch comprising a supporting frame, a tiltable body-supporting top, a rocking member, rollers carried by said member on which the intermediate portion of the top is slidably supported, and means connected to the top for tilting the same.

3. A couch comprising a supporting frame, a tiltable body-supporting top, a rocking support with which the intermediate portion of the top is slidably engageable, a pulley, a hauling device passing over the pulley and connected to the top, and means for operating the pulley.

4. A couch comprising a supporting frame having a top cross-rail intermediate its ends, rocking members carried by said cross rail and projecting from opposite sides thereof, rollers carried by the ends of said members, a body-supporting top slidably supported intermediate its ends on the rollers, and means connected to the top for tilting the same.

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

ALBERT R. HYATT.

Witnesses:

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H. H. PRESSLER.