

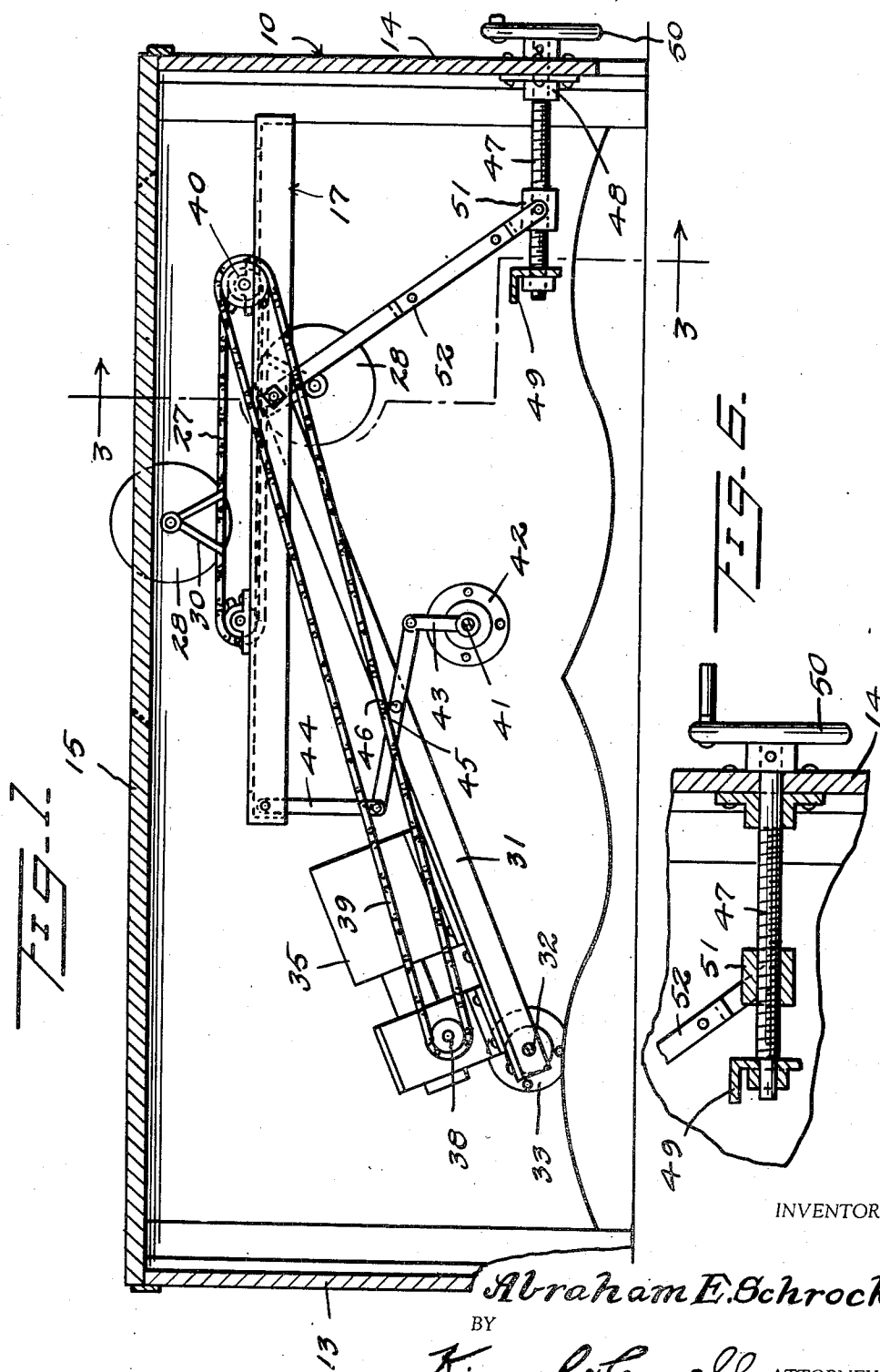
Nov. 9, 1954

A. E. SCHROCK
MASSAGING DEVICE

2,693,797

Filed Aug. 28, 1952

4 Sheets-Sheet 1



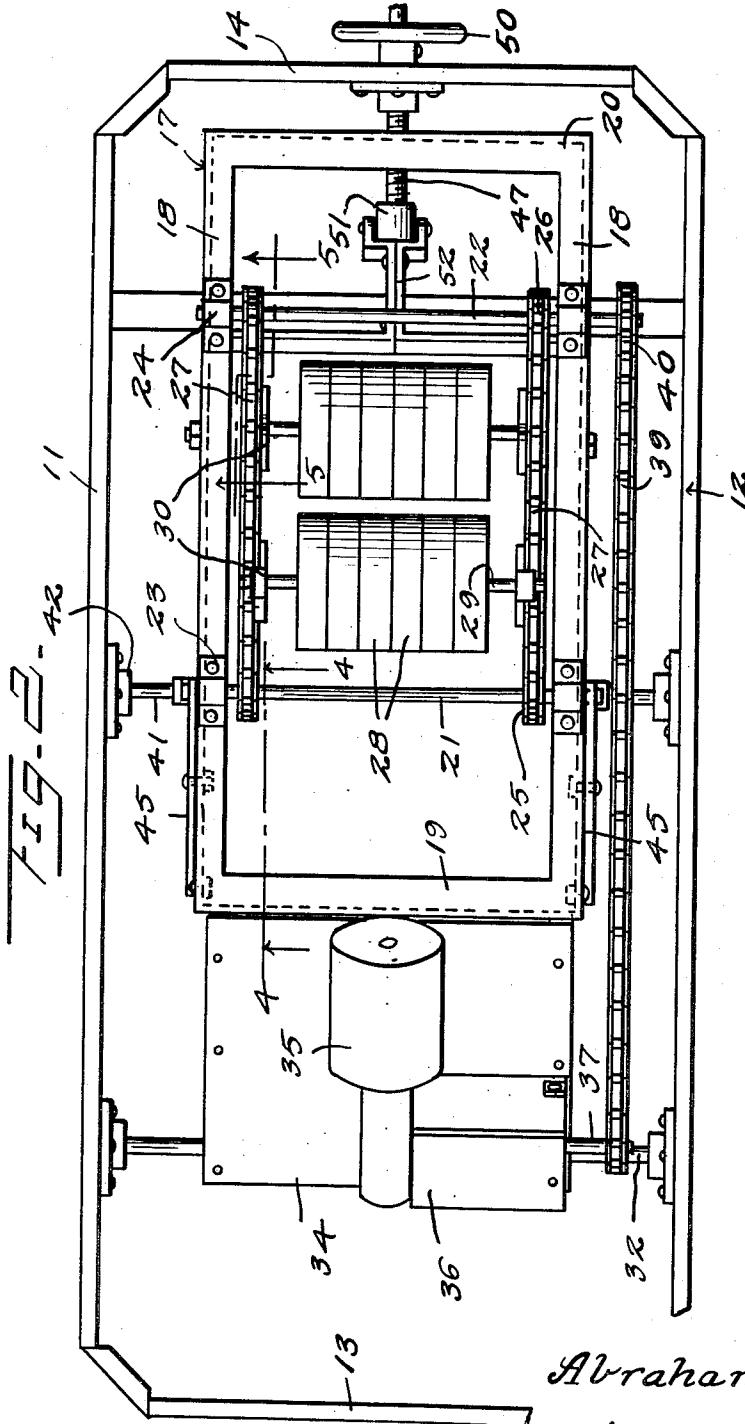
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4 Sheets-Sheet 2



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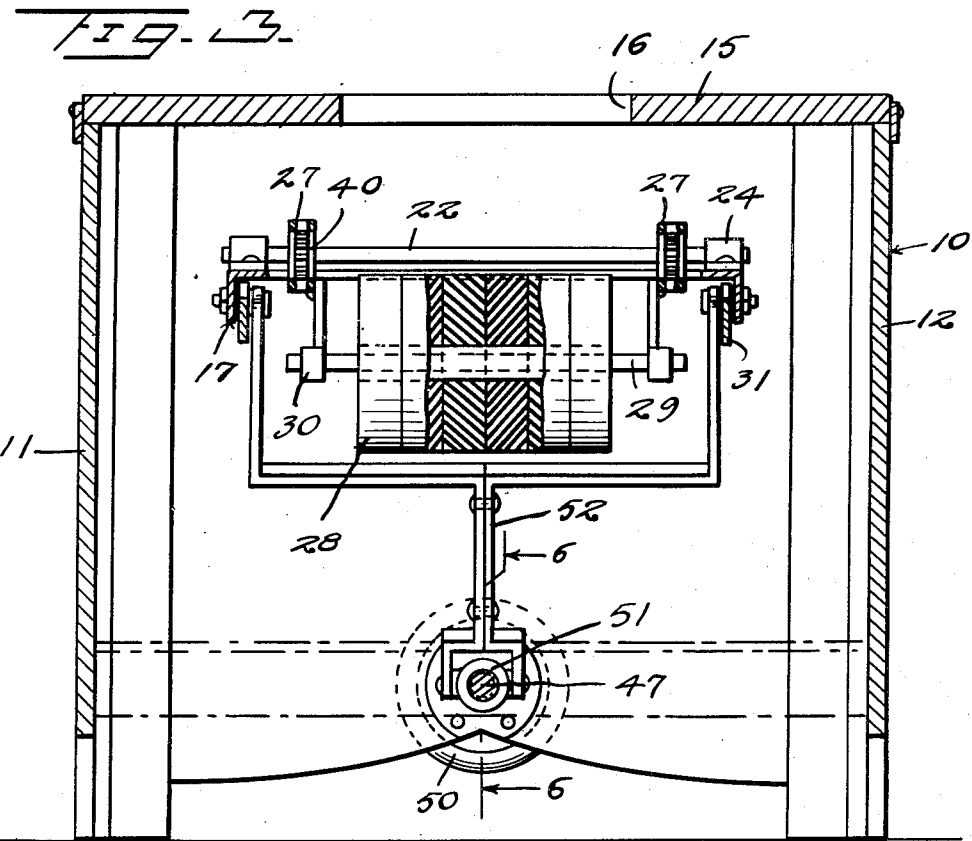
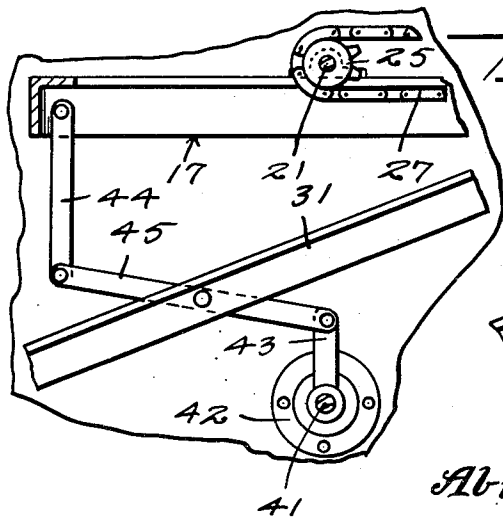
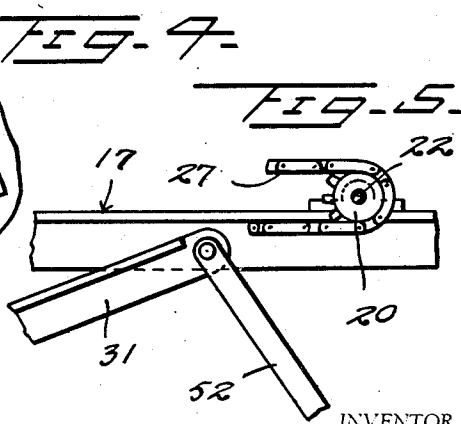
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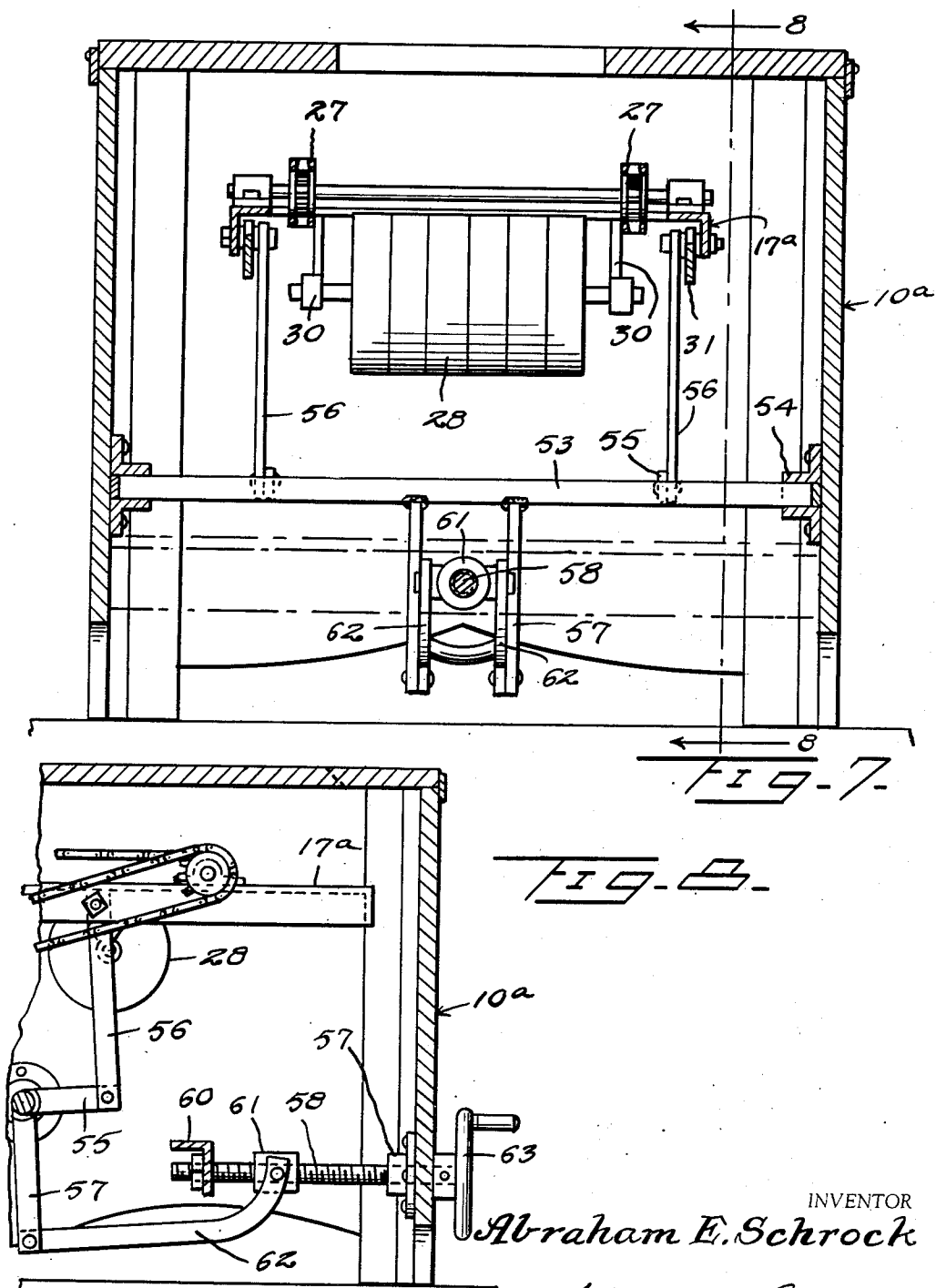
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MASSAGING DEVICE

Abraham E. Schrock, Catlett, Va.

Application August 28, 1952, Serial No. 306,847

4 Claims. (Cl. 128—58)

This invention relates to massaging devices, and more particularly to a spinal massager.

An object of this invention is to provide a massaging machine which is particularly designed for massaging the spine and which is formed of two or more rubber rollers which are mounted in a position to have rolling and moving contact with the spine of a person reclining on top of the machine.

Another object of this invention is to provide a spinal massaging machine which can be easily adjusted to provide for the desired massaging action.

A further object of this invention is to provide a spinal massaging machine which is simple in construction and will give the desired massaging action.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claims.

In the drawings—

Figure 1 is a longitudinal section of a spinal massaging machine constructed according to an embodiment of this invention.

Figure 2 is a plan view, partly broken away, of the device with the top removed.

Figure 3 is a sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a fragmentary sectional view taken on the line 4—4 of Figure 2.

Figure 5 is a fragmentary sectional view taken on the line 5—5 of Figure 2.

Figure 6 is a fragmentary sectional view taken on the line 6—6 of Figure 3.

Figure 7 is a sectional view similar to Figure 3, showing a modified form of this invention.

Figure 8 is a fragmentary sectional view taken on the line 8—8 of Figure 7.

Referring to the drawings, the numeral 10 designates generally a cabinet which is formed of opposite side walls 11 and 12, and opposite end walls 13 and 14. A top 15 is disposed on the upper edges of the side and end walls and is formed with an elongated rectangular opening 16.

A horizontally disposed roller carrying frame generally designated as 17 is mounted in the cabinet 10 below the top 15. The frame 17 is formed of a pair of longitudinal frame bars 18 and opposite end bars 19 and 20. A pair of shafts 21 and 22 are journaled across the frame 17, being mounted in bearings 23 and 24 respectively.

Shaft 21 has secured thereto a pair of sprockets 25 and shaft 22 has secured thereto a pair of sprockets 26. A pair of endless chains 27 are engaged about the sprockets 25 and 26 and a pair of rubber rollers 28 which are mounted on shafts 29 journaled in V-shaped bearing brackets 30 are secured to the chains 27 and extend therebetween. The rollers 28 are adapted on the upper runs of the chains 27 to project partly through the opening 16 in the top wall 15 for rolling contact with the spine of a person reclining or otherwise disposed on the top 15.

A pair of downwardly inclined frame bars 31 are secured at their upper ends to the frame 17 between the ends of the latter, and the lower ends of the bars 31 are rockably mounted on a horizontal transverse shaft 32 which is mounted at the opposite ends thereof in bearings 33 secured to the inner sides of the side walls 11 and 12.

The bars 31 have secured to the upper sides thereof a plate 34 on which a motor or power member 35 is mounted, and a speed reducing means 36 of conventional

2

construction is connected with the power member 35 and includes a shaft 37 having a sprocket 38 mounted thereon. A chain 39 is engaged about the sprocket 38 and is also engaged about an upper sprocket 40 which is mounted on the shaft 22.

In order to provide a means whereby the roller frame 17 may be vertically adjusted and maintained in a horizontal position, I have provided a cross shaft 41 mounted in bearings 42 secured to the inner sides of the side walls 11 and 12, and the shaft 41 has secured thereto a pair of upwardly projecting arms 43. The inner end of the roller frame 17 has depending therefrom a pair of arms or levers 44 and the arms or levers 44 are pivotally connected to a pair of pivoted links or levers 45 which are pivotally secured between the arms 43 and 44. The arms or levers 45 are pivotally secured between the ends thereof, as at 46, to downwardly inclined bars 31.

A screw shaft 47 is journaled in a bearing 48 carried by end wall 14 and is also journaled in a transverse bar 49 secured between the sides 11 and 12. A hand wheel 50 is secured to the outer end of shaft 47 whereby the latter may be rotated to vertically adjust the frame 17.

Referring now to Figures 7 and 8, the numeral 10a designates generally a cabinet similar to cabinet 10, and the cabinet 10a has mounted therein a roller carrying frame 17a which is similar to the frame 17. In the present instance the frame 10a is vertically adjusted as will be hereinafter described.

A horizontal shaft 53 is rockably mounted in bearings 54 secured to the sides of the cabinet 10a, and the shaft 53 has fixed thereto a pair of spaced apart arms 55. A pair of links 56 are pivotally secured at their lower ends to the arms 55 and are pivotally secured at their upper ends to the frame 17a. The shaft 53 also has fixed thereto a pair of depending lever arms 57 which are disposed at substantially right angles to the arms 55 and are positioned inwardly from the latter.

A screw shaft 58 is journaled through a bearing 59 carried by one end of the cabinet 10a and is journaled at its inner end through a horizontally disposed angle bar 60 which is fixed between the sides of the cabinet 10a. A nut 61 is threaded on the shaft 58, and a pair of longitudinally bent links 62 are pivotally secured at their forward ends to the nut 61 and are pivotally secured at their inner ends to the depending lever arms 57.

The screw shaft 58 has fixed to the outer end thereof a hand wheel 63 so that the shaft 58 may be rotated to rock shaft 53 and thereby raise or lower the roller frame 17a. In other respects the structure shown in Figures 7 and 8 is identical with the structure shown in Figures 1 to 6 inclusive.

In the use and operation of this device, the rollers 28 are adjusted by turning of the hand wheel 50 and the screw shaft 47 so that the rollers 28 will project on the upper runs of the chains 27 through the opening 16 for a desired distance. Power member 35 is operated so as to move the chains 27 and as the rollers 28 move lengthwise along the upper runs of the chains 27, these rollers will have rolling and moving contact with the body of the person reclining or otherwise disposed on the top or table 15.

I do not mean to confine myself to the exact details of construction herein disclosed, but claim all variations falling within the purview of the appended claims.

What I claim is:

1. A massaging device comprising a cabinet formed of opposite side walls, opposite end walls, and a top formed with an elongated opening, a roller frame in said cabinet, means supporting said frame in horizontal position beneath said top, means for adjusting said frame, means for maintaining the frame in horizontal position during adjustment, said means including a cross shaft secured between said side walls, arms extending upwardly from said shaft, links pivoted at one end to said arms, depending arms secured to said frame, means pivotally connecting said last-mentioned arms to the other end of said links, downwardly inclined bars secured to said last-mentioned arms, means rockably mounting said bars at their lower ends, and means securing the upper ends of said bars to said frame, a pair of endless chains movably carried by said frame, a pair of resilient rollers disposed

3

between said chains and movable therewith, and means for moving said rollers.

2. A massaging device comprising a cabinet formed of opposite side walls, opposite end walls and a top wall formed with an elongated opening, a horizontal roller frame in said cabinet, supporting means for said frame, means for adjusting said frame, means for maintaining the frame in horizontal position during adjustment, said means including a cross shaft secured between said side walls, arms extending upwardly from said shaft, links pivoted at one end to said arms, depending arms secured to said frame, means pivotally connecting said last-mentioned arms to the other end of said links, downwardly inclined bars secured to said last-mentioned arms, means rockably mounting said bars at their lower ends, and means securing the upper ends of said bars to said frame, a pair of shafts rotatably carried by said frame, a pair of sprockets carried by each shaft, a pair of endless chains engaging about said sprockets, a pair of roller shafts, pairs of bearing brackets carried by said chains and through which said roller shafts rotatably engage, a rubber roller on each roller shaft, each roller projecting partly through said top opening on the upper run thereof, and means for moving said chains.

3. A massaging device comprising a cabinet formed of opposite side walls, opposite end walls, and a top wall formed with an elongated opening, a horizontal roller frame beneath said top, a pair of resilient rollers, a pair of endless chains extending lengthwise of said frame, means movably supporting said chains, means securing said rollers in offset relation to said chains for movement with the latter, a pair of elongated bars fixed at one end thereof to an intermediate point on said frame and extending angularly and downwardly therefrom, a pivot shaft extending through the lower ends of said bars, means supporting said shaft between the sides of the cabinet, a second shaft journaled between said sides, a pair of upwardly projecting arms carried by said second shaft, a pair of depending bars pivotally secured at their upper ends to said roller frame, a pair of levers pivotally

4

secured between said arms and said depending bars, means pivotally securing said levers to said first-named bars, a horizontal screw shaft rotatably carried by said cabinet, a nut threaded on said shaft, a linkage pivotally connected between said nut and said roller frame, longitudinal adjustment of said nut effecting vertical adjustment of said roller frame, and power means carried by said first-named bars connected with said first-named means.

4. A massaging device comprising a cabinet formed of opposite side walls, opposite end walls, and a top formed with an elongated opening, a horizontal roller frame beneath said top, a pair of resilient rollers, a pair of endless chains extending lengthwise of said frame, means movably supporting said chains, means securing said rollers in offset relation to said chains for movement with the latter, a pair of elongated bars fixed at one end thereof to an intermediate point on said frame and extending angularly and downwardly therefrom, a pivot shaft extending through the lower ends of said bars, means supporting said shaft between the sides of the cabinet, a second shaft journaled between said sides, a pair of upwardly projecting arms carried by said second shaft, a pair of depending bars pivotally secured at their upper ends to said roller frame, a pair of levers pivotally secured between said arms and depending bars, means pivotally securing said levers to said first-named bars, a horizontal screw shaft rotatably carried by said cabinet, a nut threaded on said screw shaft, a third shaft journaled between said sides, right angularly related pairs of arms fixed to said third shaft, links pivotally secured between one pair of said latter arms and said frame, and links pivotally secured between another pair of said latter named pairs of arms and said nut whereby rotation of said screw shaft will effect adjustment of said frame.

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