

1,348,896.

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UNITED STATES PATENT OFFICE.

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ANATOMICAL DEVELOPING AND ADJUSTING MACHINE.

1,348,896.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, DANIEL W. RIESLAND, citizen of the United States, residing at Duluth, in the county of St. Louis and State of Minnesota, have invented certain new and useful Improvements in Anatomical Developing and Adjusting Machines, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to anatomical developing and adjusting machines and has special reference to a type of machine somewhat similar to that disclosed in my United States Patent No. 935,272, patented Sept. 28, 1909.

The object of my present invention is to produce certain improvements over my former machine, and which have been utilized in the practice of my profession.

Other objects and advantages of the novel features will appear in the further description thereof and are particularly pointed out in the appended claims.

In the accompanying drawings forming part of this application:

Figure 1 is a broken side elevation of one of my complete machines.

Fig. 2 is a transverse sectional view through one side of the reciprocal table support.

Fig. 3 is a top plan view of Fig. 1, and

Fig. 4 is an enlarged broken view of the adjusting device at the head of the table, partly in section.

1 represents a rectangular shaped frame supported upon preferably four suitable legs 2 and transverse the head end of the frame is a comparatively narrow platform 3 supported upon cross members 4—4, thus elevating the platform 3 slightly above the upper level of the frame 1.

Channel irons 5 are placed one upon each side member of the frame 1 and extend from adjacent the inner edge of the platform 3 to the opposite end of the frame. In these channel irons are supported balls 6, preferably four in each channel and spaced equidistance apart. Upon the balls are placed inverted channels 7 they being secured to the under side of the reciprocal table or platform 8. The balls 6 are of sufficient size to rest only upon the edges of the channel and thus form as frictionless

support for the reciprocal table as possible and permit of its easy motion.

At 9 I have shown a spiral spring one end of which is fastened as at 10 to the under side of the table 8 and at the opposite end is attached in any desired manner to the fixed portion of the table or platform 3, this spring being normally contractile and tending at all times to keep the table contacting the edge of the platform as shown in the drawings.

Fixed beneath the table is a trough-like housing 11, in which are placed suitable electric globes 12 as is common in such machines and the slot 13 within the reciprocal table extends entirely through the end thereof so that a patient's back is equally exposed to the light and heat from the globes regardless of the reciprocal motion of the table.

Upon the outermost edge of the platform 3 and centrally thereof is fixed an upstanding bracket 14 which pivotally removably carries an arcuately shaped yoke or cross piece 15 which is hooked upon its inwardly projecting ends 16 and to which is attached a strap 17 for engagement about the chin of a patient receiving treatment upon the table. The bracket 14 has an inwardly protruding extension 18 which is attached to the end of the frame 1 said extension being formed with an internally screw-threaded hole 19 in which the externally threaded shaft 20 is engaged and which latter carries the upwardly extending bracket 21 and an operating handle 22 externally of the bracket and by which the shaft is rotated for carrying the bracket either toward or from the end of the table.

In the upper end of the bracket 21 are pivotally supported two inwardly extending diverging arms 23 they each carrying upon their free ends an upwardly extending pin 24 which is designed to engage the arm-pits of a patient being treated—that is to say the arms of the patient are positioned about these pins when the former is lying prostrate upon his back on the table and his head is in the sling 17, the object being to provide adjustable means whereby the holding strain upon the bust of the patient may be adjusted as desired as it is evident if the arms 23 are drawn toward the bracket 14 the distance between the uprights 24 and

the bracket will be shortened and cause more strain to come upon the patient's arm-pits in proportion to that upon the strap 17 than if the arms 23 were extended in the opposite direction.

The arms 23 are preferably bent downwardly toward their free ends and rest upon the top of the table to result in as comfortable position as possible for the patient, and being pivotally attached to the bracket 21 permit of their being adjusted radially to suit circumstances.

Upon the opposite end of the frame 1 is supported a horizontally extending bracket 25, the end of which is bifurcated and pivotally supports therein the goose-neck lever 26 the upper end of which removably carries a suitable sheave 27, about which the line 28 of the body harness is carried. The latter comprises a wide bifurcated strap 29 the meeting ends of which terminate in the single strap 30 having one end of the line 28 attached thereto while a bridle 31 is connected to the opposite ends of the strap 29 and attached to the opposite end of the line 28. The object of the line 28 passing about the pulley 27 is to permit of free equalization of the strain upon the opposite ends of the body harness as is obvious.

To the lower end of the goose-neck lever 26 is pivotally attached as at 32 a pitman 33 which is given reciprocal motion by means of suitable crank attachment to the worm gear 34 given rotary motion by the electric motor 35 or other suitable equivalent attachment.

At 36 I have shown an electric switch board, easy of access and by which the lights and the motor may be controlled at will. When the gear 34 is rotated it is evident that the body harness 29 is alternately drawn and released and when a patient is properly installed upon the table the resiliency of his body will permit of considerable longitudinal extension and contraction, the contraction being produced by the natural tendency of the body to resume its normal state, together with the contractile stress of the spring 9 which as before stated normally tends to hold the reciprocal table 8 toward the head of the machine.

It is apparent that the principal weight of the patient's body will be carried by the table 8 and it being mounted upon the balls

6 will readily permit of such reciprocation of the body with the least friction possible and while I have shown a specific embodiment of the invention it is evident that the same may be materially modified without departing from the spirit thereof.

What I claim is:

1. The combination with a table of the character described having means at one end for holding stationary the upper portion of a patient's body and means at the opposite end for affording intermittent stress upon the lower portion of the body, of a reciprocable table upon which the patient is carried having means whereby the table is normally retained toward the upper end of its supporting frame.

2. The combination with a table of the character described including stationary head-holding means and adjustable arm-pit engaging means, of said latter means comprising two independently movable arms independently pivotally attached to said adjustable portion of the arm-pit engaging means, substantially as described.

3. The combination with a table of the character described having means at one end for holding stationary the upper portion of the patient's body, means at the opposite end for affording intermittent stress upon the lower portion of the body and a stationary section of table top adjacent the head end thereof, of the entire remainder of the top being reciprocable, and yieldable means for normally retaining said reciprocable section adjacent the stationary section whereby no portion of the patient's body remains on a stationary portion of the table except the head.

4. The combination with a table of the character described, of holding means at the head thereof comprising an upright fixed standard, a vertically adjustable yoke pivotally mounted upon the standard and a strap adjustable to and from the chin of a patient, said strap being removably attached to the ends of the yoke.

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

DANIEL W. RIESLAND.

Witnesses:

M. S. EVJEN,
W. H. DENHAM.