

1,046,736.

2 SHEETS--SHEET 1.



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1,046,736.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

BERT A. CLAYTON, OF DAVENPORT, IOWA, ASSIGNOR OF ONE-HALF TO BARTLETT J PALMER, OF DAVENPORT, IOWA.

OPERATING CHAIR OR TABLE.

1,046,736.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed August 5, 1912. Serial No. 713,330.

To all whom it may concern:

Be it known that I, BERT A. CLAYTON, citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Operating Chairs or Tables, of which the following is a specification.

This invention relates to an improvement in operating chairs or tables, designed particularly for use by chiropractors, osteopaths, masseurs and the like.

The object of the present invention is the provision of a chair or table of this character which is so constructed that it can be adjusted for patients of various sizes, and can also be readily and easily adjusted to bring the patient in any position desired by the practitioner.

Other objects of the invention will be apparent from the detailed description hereinafter when read in connection with the accompanying drawings forming a part hereof, wherein a convenient embodiment of the invention is illustrated, and wherein like characters of references refer to similar parts in the several views.

In the drawings: Figure 1 is a side elevation of a table or chair constructed in accordance with the present invention, the table being shown in its lowermost position; Fig. 2 is a longitudinal section of the device in the same position; Fig. 3 is a top plan view of the chair or table in its lowered position; Fig. 4 is a side elevation, parts being shown in section, of the chair or table in its elevated position; and Fig. 5 is a cross section on line 5—5 of Fig. 1.

Referring now more particularly to the drawings, A designates the supporting member of the chair which comprises a flat supporting base which is adapted to be secured to the floor or other suitable support, and upon which is supported a cylinder A'.

B designates a piston which is adapted to move within the cylinder A'.

Communicating with the lower portion of the cylinder A' is a pipe C through which air or other fluid under pressure is adapted to be admitted to the lower portion of the cylinder A' when it is desired to elevate the piston B therein. The pipe C also serves as an exhaust pipe to permit the escape of the air or other fluid from the cylinder A' when it is desired to effect the lower-

ing of the piston therein: To control the admission of air to and from the cylinder, a three-way valve is interposed in the pipe C, which valve, when in one position, is adapted to place the cylinder A' in communication with a suitable source of compressed air or other fluid under pressure, and when in another position, is adapted to connect the cylinder A' with a suitable exhaust pipe.

D designates the frame of the table or chair which is, when in its horizontal position, adapted to overlie the top of the cylinder A', said frame being pivotally connected adjacent the foot thereof to one side of the upper portion of the cylinder A', so that the frame can, when desired, be turned to substantially a vertical position.

Pivotally secured to the underside of the frame D adjacent its connection with the cylinder A' is a link D', the lower end of which is pivotally connected to the upper portion of the piston B. From this construction, it will be seen that by regulating the fluid pressure in the cylinder A', the frame D may be maintained at any desired angle. In the embodiment of the invention illustrated in the drawings, the frame D is formed of connected side bars *d d* which are conveniently formed of angle iron, the ends of said side bars being upturned to provide supports for a foot board E which is rigidly secured thereto in any suitable manner. The head and foot portions of the frame D are substantially parallel, the side bars *d d* being inclined downwardly intermediate said head and foot portions, as at *d'*, so that the head portion is positioned somewhat below the foot portion when the frame is in its horizontal position.

Slidably mounted upon the foot portion of the frame D so that it may be adjusted longitudinally thereof, is a support F to which is secured an angularly adjustable plate G which is adapted to overlie the foot portion of the frame D and to constitute a support for the legs of the patient. In the embodiment of the invention illustrated, the support F comprises side members *f f* which are grooved to slidably engage the laterally extending flanges of the angle bars *d d* of the frame D, which bars are connected by a suitable cross piece. The plate G is hingedly connected to the ends of the side members F F nearest the foot board E and said plate is normally held in its lowermost posi-

tion against the side members *f f* of the support *F* by means of coil springs *f'* which connect the sides of said plate with the members *f f*.

5 Any suitable means is employed for supporting the free end of the plate *G* to maintain the same in various positions to angular adjustment. In the embodiment of the invention illustrated, the means employed
10 for this purpose comprises a rod *f²* which is slidably mounted in a socket secured to the exterior of the cylinder *A'*, the socket being so positioned that when the rod is elevated therein, the upper portion thereof will contact with the underside of the free end of
15 the plate *F* and elevate the same. Manifestly by adjusting the rod *f²* in its socket, the plate *F* may be set and maintained at any desired angle with reference to the
20 frame *D*. In the embodiment of the invention illustrated, I have shown the rod as provided with a plurality of depressions therein which are adapted to be engaged by a set
25 screw *F³* which is threaded in the socket in which the rod is mounted. With this construction, the rod *f²* is first adjusted to the desired height so that when the chair is lowered to its horizontal position, the plate will be caused to assume the desired degree of
30 angular adjustment.

While I have illustrated a vertically adjustable rod secured to the cylinder *A'*, as the means for holding the plate in various
35 positions of angular adjustment, it will be understood that this angular adjustment of the plate *F* may be secured in various other ways without departing from the spirit and scope of the present invention.

Any suitable means may be employed for
40 locking the support *F* in any desired position of longitudinal adjustment on the side bars *d d* on the frame *D*. In the embodiment of the invention illustrated, I have shown one of the side members *f* of the
45 support *F* as provided with a pivoted cam lever *F'* for this purpose, said lever being adapted, in one position, to permit the support *F* to slide freely on the side bars *d d* and in another position to hold said support
50 tightly clamped to said side bars.

Slidably mounted upon the head portion of the frame *D* so as to be capable of longitudinal adjustment thereon, is a support *H*, upon which is mounted an angularly adjustable plate *I* which serves to support the
55 breast of the patient. The support *H* comprises, in the form of the invention illustrated in the drawings, side members *h h* which are grooved so as to slidably engage
60 the side bars *d d* of the frame and which are connected by a suitable cross piece *h'*, said cross piece being provided intermediate the ends thereof with an inwardly extending notch *h²* in one edge thereof for a purpose to
65 be hereinafter more particularly set forth.

Extending upwardly from the side pieces *h h* are supports *h³* to the upper portions of which the plate *I* is pivotally connected adjacent one end thereof.

Any suitable means may be employed for
70 locking the plate *I* in various positions of angular adjustment. In the embodiment of the invention illustrated, a rod *i* is pivotally connected to the underside of the plate *I* and depends therefrom, said rod being adapted
75 to work within the notch *h²* formed in one edge of the cross piece *h'* connecting the side members *h h* of the support *H*, and is provided with a plurality of notches *i'* in one
80 edge thereof, any one of which may be moved into engagement with the cross piece *h'*. A spring *i²* connects the plate *I* with the rod *i* depending therefrom and serves to normally hold said rod in a position to cause
85 the engagement of one of the notches *i'* therein with the cross piece *h'*, heretofore described.

Any suitable means may be employed for securing the support *H* in any position of
90 adjustment on the side bars *d d* of the frame *D*. In the embodiment of the invention illustrated, a cam lever *H'* is utilized for this purpose, which lever is similar to that heretofore described in connection with the support *F*.
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In using the device, air or other fluid under pressure is first admitted to the cylinder *A'* and the piston *B* is elevated therein until the frame *D* has been moved to its vertical position. The patient then steps upon
100 the foot piece *E* at the foot of the frame facing the plate *I*, and the table is lowered to the desired extent by allowing the air or fluid to escape from the cylinder *A*.

While I have illustrated in the accompanying drawings, a convenient embodiment of the invention, it will be understood that many changes may be made to the particular form and construction therein shown without departing from the spirit and scope of the invention as defined in the appended
110 claims.

I claim:—

1. In a device of the character described, a supporting base, an elongated frame pivotally connected to said base, said frame being provided with a foot board projecting laterally from one end thereof, and with angularly adjustable body supporting members positioned at the ends thereof and
115 spaced from each other.

2. In a device of the character described, a supporting base, a frame pivotally connected thereto, a body supporting member pivoted to said frame, and an adjustable
125 member carried by said supporting base and adapted to engage said body supporting member when the frame is moved to its lower position, and shift the same relatively to said frame.
130

3. In a device of the character described, a supporting base, an elongated frame pivotally connected thereto, and adapted to overlie said supporting base when in its lower position, a body supporting member pivoted to said frame, a yieldable connection between said body supporting member and the frame for normally holding the body supporting member flat against the frame, and means carried by the supporting base and adapted to engage said body supporting member when the frame is lowered thereon to shift the same relatively to the base.

4. In a device of the character described, a supporting base, an elongated frame pivotally connected thereto and adapted to overlie said supporting base when the frame is in its lower position, a carriage supported by said frame and adjustable longitudinally thereof, a body supporting member pivotally connected to said carriage, and an adjustable member carried by said supporting base and adapted to engage said body supporting member when the frame is lowered to shift the same relatively to said frame.

5. In a device of the character described, a supporting base, a carriage mounted on said supporting base and adjustable longitudinally thereof, a body supporting member pivotally connected to said carriage, yieldable means connecting said body supporting member and said carriage, and an adjustable member carried by said supporting base and positioned to engage said body

supporting member when the frame is in its lower position.

6. In a device of the character described, a frame, a carriage slidably mounted on said frame and adjustable longitudinally thereof, a body supporting member pivotally connected to said carriage, a bar pivotally connected to said body supporting member and depending therefrom, said bar being provided with a plurality of notches in one edge thereof adapted for engagement with a portion of said carriage, and a spring for normally holding said bar so that one of the notches thereof will engage said portion of the carriage.

7. In a device of the character described, a supporting base, an elongated frame, provided with a foot board projecting laterally therefrom, means for pivotally connecting said frame to said supporting base adjacent said foot board, a carriage slidably mounted on said frame adjacent said foot board, an angularly adjustable body supporting member mounted on said carriage, a carriage slidably mounted on the end of said frame and adjustable longitudinally thereof, and an angularly adjustable body supporting member mounted on said last mentioned carriage.

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

BERT. A. CLAYTON.

Witnesses:

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