Oct. 31, 1933. W. H. CURTIS 1,933,210

COMBINED TABLE, LEG, AND FOOT REST

Filed Dec. 11, 1931

Fig. 1.

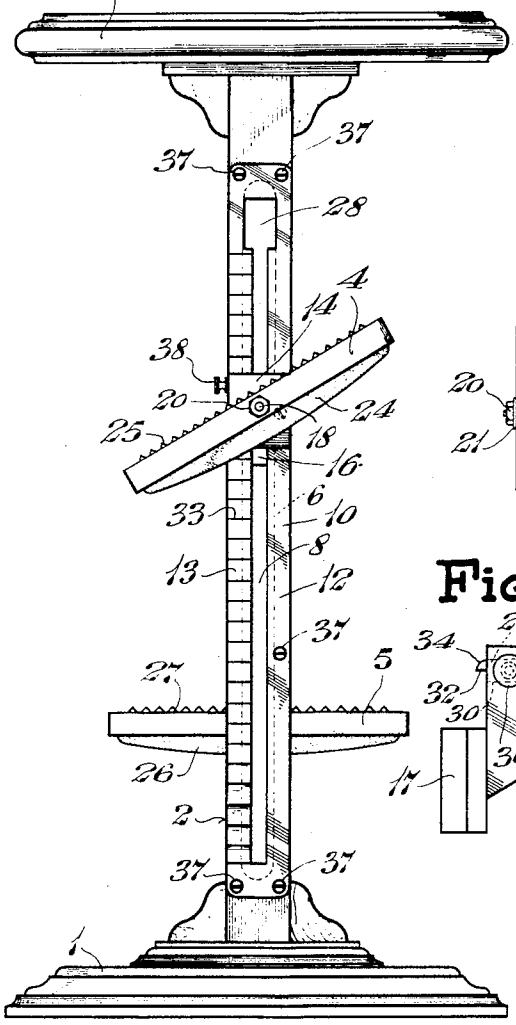


Fig. 2.

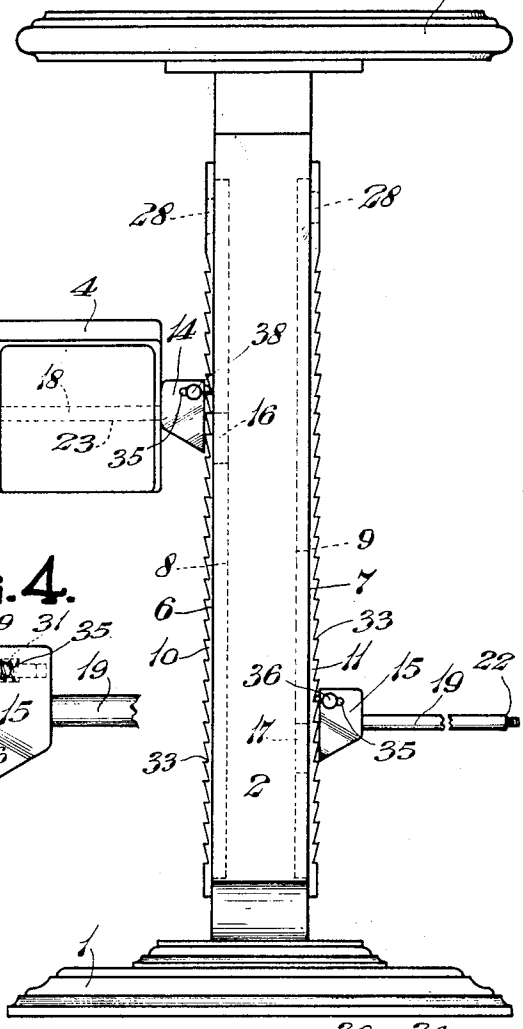


Fig. 4.

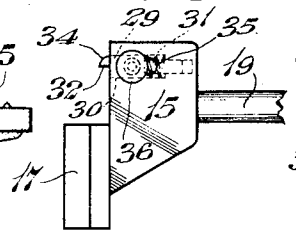


Fig. 3.

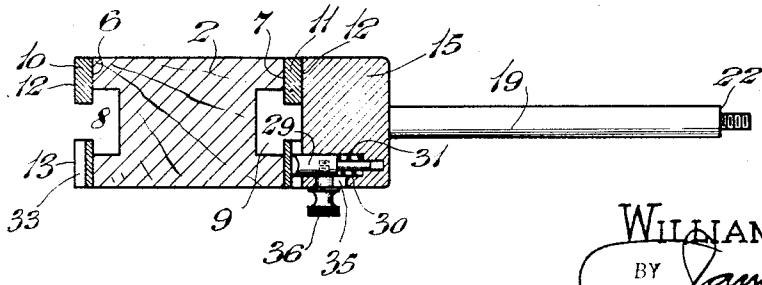
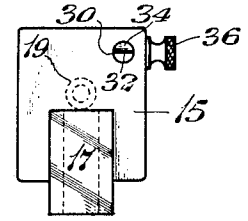


Fig. 5.



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COMBINED TABLE, LEG, AND FOOT REST

William H. Curtis, Peru, Ind.

Application December 11, 1931
Serial No. 580,346

6 Claims. (Cl. 45—31)

My invention relates to a table supported by a standard and having pivotally mounted and vertically adjustable leg and foot rests on the opposite sides of said standard.

The object of my invention is to provide simple, efficient, convenient and economical means for supporting and resting the feet and legs in various adjusted positions and particularly in connection with a table while the user is occupying a seated posture in front of said table.

My invention consists in a suitable base supporting a standard having a table mounted on the top thereof and which is provided with an elongated vertical groove upon the opposite sides thereof and having a metallic slotted member mounted on said opposite sides, respectively, and partly over said groove, one side of said slotted member having a plain smooth surface and the other side being notched to form a rack in combination with a slidable support having a T-projection fitting within said slot and behind said metallic member and provided with a plunger adapted to adjustably hold said support in any desired vertical position upon said rack, each support also having a bearing on which the leg and foot rest is pivotally mounted.

My invention also consists in the combined leg and foot rest one side of which is padded to support the leg and the other side of which comprises a metallic corrugated surface to support the foot.

My invention further consists in providing each support with a socket adapted to receive a coil spring and to receive a plunger having a reduced end portion mounted within said coil spring and having a shoulder against which said spring bears and also having its outer end cut away or notched on its lower side to form a bearing to engage the horizontal surface of the rack teeth, respectively, and having its upper side beveled to permit said plunger to ride over the angular surface of the rack teeth against the action of the spring when being adjusted upwardly thereon, either by the foot or hand. Said support is also provided on its front side with a transverse slot which communicates with said socket and permits a knurled-headed bolt to be screwed into said plunger and by which the plunger is withdrawn from engagement with said rack when it is desired to slide the foot and leg rest downwardly on the rack.

My invention also consists in the details of construction and in the combination, location and arrangement of parts as herein set forth and claimed.

In the drawing:

Fig. 1 is a side elevation of the invention showing the left foot and leg rest adjusted higher on the standard than the right foot and leg rest;

Fig. 2 is a front elevation of the same, the right foot and leg rest being removed to show its bearing which is broken due to lack of space;

Fig. 3 is an enlarged cross section through the standard and through one of the supports on line 3—3 of Fig. 2, the plunger and knurled headed bolt being shown in elevation;

Fig. 4 is an enlarged side elevation of the right support with its bearing partly broken away; and

Fig. 5 is a rear or inside elevation thereof.

In the embodiment of my invention as illustrated and which shows a preferred construction I provide a combined table, leg and foot rest comprising, generally, base 1, standard 2, table 3 and combined leg and foot rests 4 and 5. The lower end of standard 2 is suitably attached to and supported by the base 1 and the upper end of said standard 2 is rigidly attached to the underside of table 3 to thereby support said table. Sides 6 and 7 of standard 2 are provided with elongated vertical grooves 8 and 9, respectively, and metallic slotted members 10 and 11 are mounted on sides 6 and 7, respectively, of standard 2 and partly over said grooves 8 and 9, as clearly shown in Fig. 3.

One side of each slotted member has a plain smooth surface 12 and the remaining side of each slotted member is notched to form a rack 13, as clearly shown in Fig. 1. 14 and 15 designate slidable supports, support 14 having a T-projection 16 fitting within elongated vertical groove 8 in side 6 of standard 2 and support 15 having a T-projection 17 fitting within elongated vertical groove 9 in side 7 of standard 2. Support 14, as shown in Fig. 2, is provided with a bearing 18 and support 15 is provided with a bearing 19. The outer end of bearing 18 is reduced to form a shoulder, the reduced portion being threaded to receive nut 20 and washer 21, the outer end of bearing 19 being reduced to form a shoulder 22 and the reduced portion being threaded to receive a nut and washer.

Combined leg and foot rest 4 is provided with a transverse hole 23 to receive the bearing 18 and when the washer 21 is inserted on the reduced end of bearing 18 and the nut 20 screwed onto said reduced and threaded end, the combined leg and foot rest is rotatably mounted upon said bearing 18. As shown in Fig. 1, one side of combined leg and foot rest 4 is padded, as shown by numeral 24, to support the leg and

the other side is provided with a metallic corrugated surface, as shown by the numeral 25, to support the foot and one side of combined leg and foot rest 5 is likewise padded, as shown by the numeral 26, to support the leg, and the other side is provided with a metallic corrugated surface 27 to support the foot.

Both of the metallic slotted members 10 and 11 are provided near their upper end with an opening 28, the width of which is equal to the width of the elongated vertical grooves 8 and 9 to receive the T-projections 16 and 17 of slidable supports 14 and 15, respectively.

Referring now to the construction of slidable support 15, which is shown partly in section in Fig. 3, 29 represents a plunger which is slidably received within socket 30, the inner end of said plunger 29 being reduced, as shown in Fig. 3, and 31 represents a coil spring which encircles the reduced end of said plunger 29 and is received within the socket 30. The outer or exposed end of plunger 29 is cut away or notched on its lower side to form a bearing 32 to engage the horizontal surface 33 of the rack teeth and the upper side of said outer end is beveled, as shown by the numeral 34 (Fig. 4) to permit said plunger to ride over the rack teeth against the action of the spring when the combined leg and foot rest 5 is being adjusted upwardly on the standard 2, either by the foot or hand. Said support 15 is also provided on its front side with a transverse slot 35, which slot communicates with said socket 30 and permits a knurled headed bolt 36 to be screwed into said plunger and by which the bearing 32 of plunger 29 can be drawn from engagement with the teeth of the rack when it is desired to slide the combined leg and foot rest 5 downwardly on the rack. As the construction of slidable support 14 is identical with the construction of slidable support 15, a detailed description thereof is thought unnecessary.

In assembling the invention, the metallic slotted member 10 is held upon side 6 of standard 2 in any suitable manner as, for example, by screws 37, shown in Fig. 1, and the metallic slotted member 11 is similarly held upon side 7 of standard 2 by screws. T-projection 16 of slidable support 14 is then inserted within opening 28 of metallic slotted member 10 and at the same time knurled headed bolt 38 of slidable support 14 is moved outwardly against the tension of the coil spring 30 to withdraw the plunger 29 out of engagement with the rack 13 of metallic slotted member 10. The slidable support 14 can then be lowered to the desired height upon the standard 2 and the knurled headed bolt 38 released which, in effect, locks the slidable support 14 upon the standard 2. The slidable support 15 is likewise mounted upon the standard 2 by passing the T-projection 17 through the opening 28 in metallic slotted member 11 and at the same time withdrawing the plunger 29 by pulling outwardly on the knurled headed bolt 36.

From the foregoing description it will be clearly apparent that in order to raise the slidable supports 14 and 15 upon the standard 2, it is merely necessary to push upwardly on the combined leg and foot rest 4 or 5, as the case may be, due to the fact that the plungers in the slidable supports will ride over the teeth of the racks but in order to lower slidable support 14 or slidable support 15 relative to the standard 2, it will be necessary to withdraw their respective plungers which is accomplished by manipulating the knurled headed bolts 36 or 38, as the case may be.

The slidable supports 14 and 15 are slidably mounted upon the standard 2, due to the T-projections 16 and 17 being received within the elongated vertical grooves 8 and 9 and retained therein by the metallic slotted members 10 and 11 and in order to remove said T-projections it is necessary to raise the slidable supports 14 and 15 to the top of metallic slotted members 10 and 11 so that said T-projections will come into alinement with the openings 28, whereupon they can be removed therethrough.

It is found by experience that frequent adjustments to different positions will afford relief, especially to a person who is affected by rheumatism or whose leg muscles are tired. It is an undisputed fact that when feet are elevated and the person is in a reclining position the blood flows horizontally instead of perpendicularly and the strain upon the heart is less. This leg rest provides for just such position.

Some of the advantages of my invention are the convenience and simplicity of the parts and their arrangement relative to each other by which each of the leg and foot rests may be adjusted upwardly merely by pressure of the foot or leg on its underside and by adjusting downwardly by merely withdrawing the plunger with one hand and permitting the rest to drop by gravity to the desired point of adjustment, whereupon the plunger, upon being released, will engage the rack and hold it in such adjusted position.

Another advantage of the invention is the convenient location of the knurled handle for withdrawing the plunger from engagement with the rack and for releasing it to permit automatic engagement therewith.

Another advantage of my invention is that each combined leg and foot rest is pivotally mounted so that the user can, with the foot, turn either the padded or the metal side upwardly to support the leg or foot, as the case may be, and the construction is such that each support is very sturdy.

As before stated, this invention permits convenient and easy adjustment of each rest to any desired position upwardly by the foot or leg and downwardly by gravity when the plunger is released.

This invention is particularly adapted for use in sanitariums and hospitals, as well as in homes and wherever persons desire to occupy a reclining position, such as in reading or studying.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. A combination table, leg and foot rest of the class described comprising a base, a standard having vertical grooves in opposite sides thereof, a slotted member mounted over each of said grooves, a table mounted upon the upper end of said standard, a combined leg and foot rest pivotally and adjustably carried by each of said slotted members and means for holding said rests at various heights upon said standard, substantially as set forth and for the purposes specified.

2. A combination table, leg and foot rest, as specified in claim 1, wherein the means for holding said rests at various heights upon said standard comprises a rack formed integral with said slotted member, a slidable support, a T-projection carried by said support and received within said vertical groove and between said standard and slotted member, means carried by said support for

engagement with said rack and pivot means for rotatably holding said rest relative to said support so as to be moved with the latter and tilted to any angle desired, substantially as described.

3. In a device of the class described, the combination of a base, a standard extending upwardly therefrom and attached thereto, a table mounted upon the upper end of said standard, a pair of slidable supports, a horizontal bearing carried by each support, a combined leg and foot rest rotatably mounted on each horizontal bearing, a T-projection formed with each of said supports and received within elongated vertical grooves located in opposite walls of said standard, a pair of slotted members partially covering said grooves, respectively, and having an opening therein to receive said T-projection, a rack formed upon each slotted member, a plunger carried by each support, spring means for normally holding said plungers in engagement with the teeth of said rack, respectively, and manually controlled means for withdrawing said plungers from engagement with said teeth of said racks when said supports are to be moved in a direction towards said base.

4. A combination table, leg and foot rest of the class wherein a base supports a standard and the standard in turn supports a table and combination leg and foot rests carried on opposite sides of said standard, characterized by the fact that means is provided whereby said combination leg and foot rests can be adjusted throughout substantially the length of said standard and independently of one another, said means comprising an elongated vertical groove cut in said standard, a metallic slotted member partially covering said groove and fixed to said standard and having an enlarged opening in communication with the slot therein, a rack integrally formed with said metallic slotted member, a slidable support, a T-projection integrally formed with said support and adapted to be passed through said enlarged opening in said slotted member and slide within said elongated vertical groove and between said standard and said slotted member, a horizontal bearing carried by said slidable support and adapted to be received within a transverse hole in said combination leg and foot rest so that the latter is rotatably supported relative to said slidable support, a plunger slidably mounted within said slidable support and having its outer end notched and beveled, spring means adapted to normally hold the notched and beveled end of said plunger in engagement with said rack, and a knurled headed bolt fixed to said plunger and slidably mounted within said slidable support, substantially as described and for the purposes set forth.

5. In a device of the class described, a base, a standard having vertical grooves in opposite sides thereof, a combined leg and foot rest pivotally and adjustably carried by each of said slotted members and means for holding said rests at various heights upon said standard, substantially as set forth and for the purposes specified.

6. In a device of the class described, a base, a standard mounted on said base, a vertical adjustable support carried by said standard, means for holding said supports at various heights upon said standard, and a combined leg and foot rest pivotally mounted in said support whereby said rest may be readily moved to any angle desired, substantially as set forth and for the purposes specified.

WILLIAM H. CURTIS.