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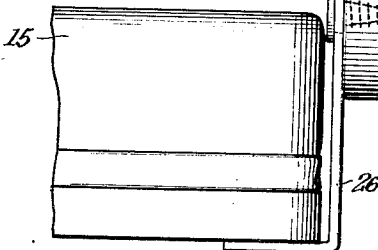
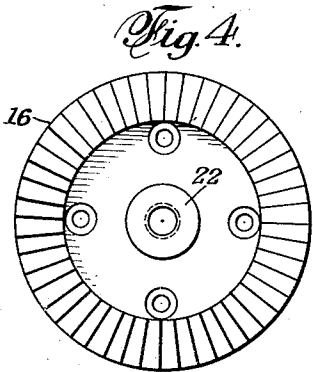
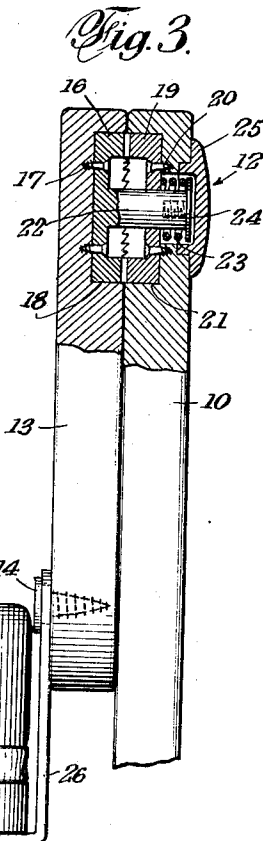
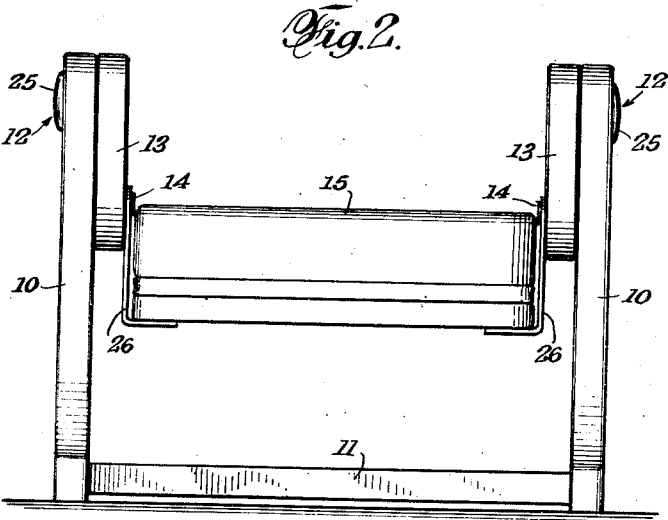
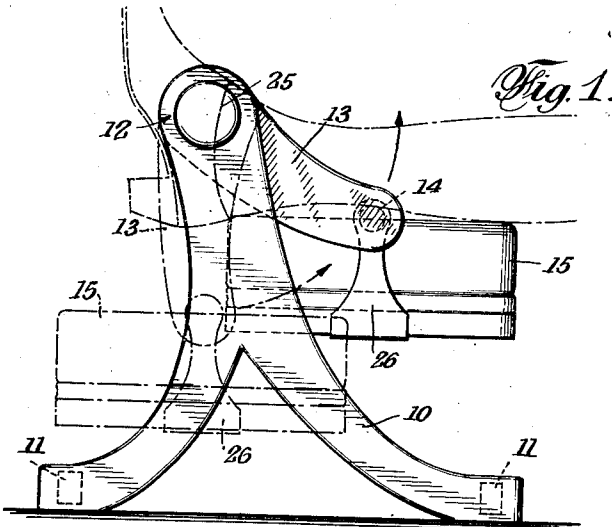
H. C. STOLL

2,175,488

FOOT REST

Filed April 7, 1938

2 Sheets-Sheet 1



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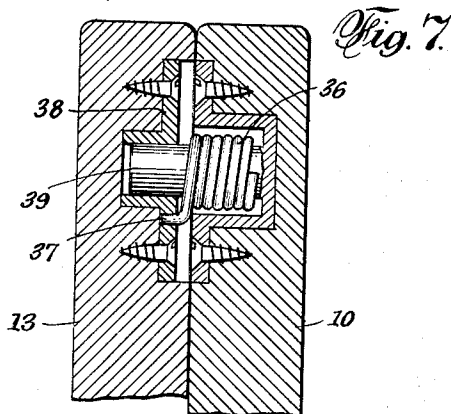
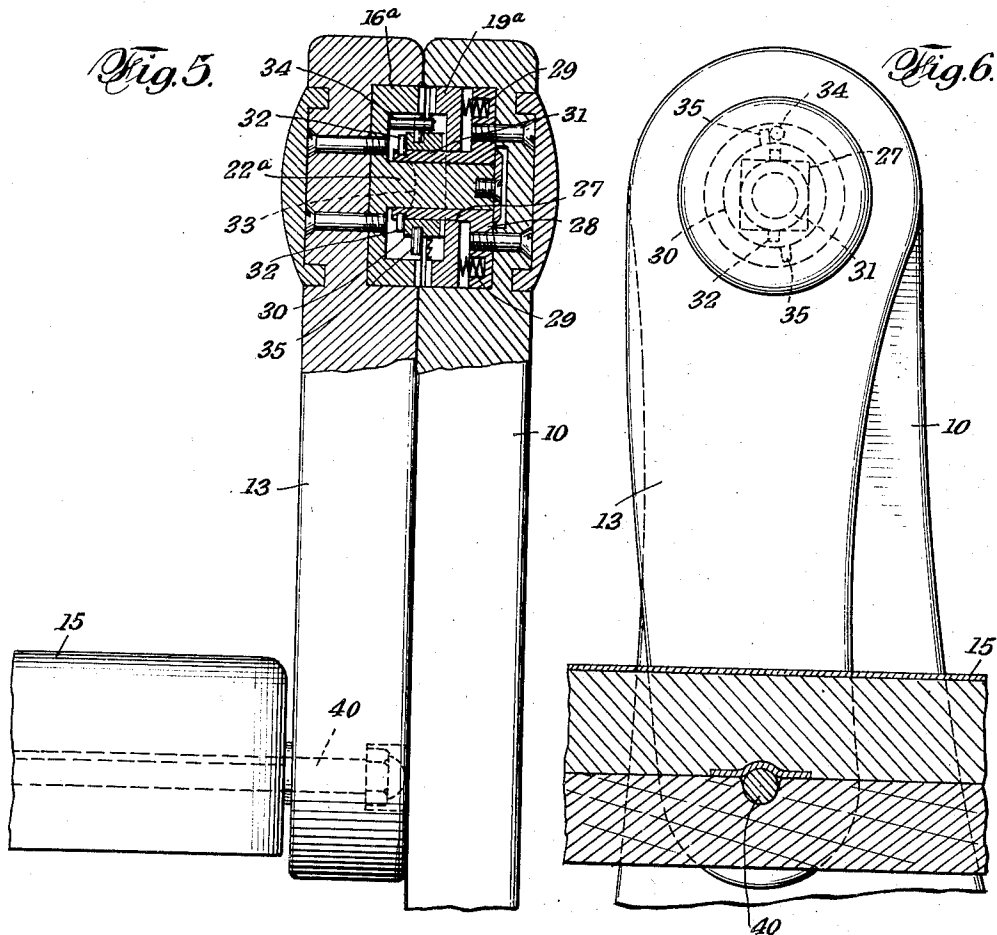
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FOOT REST

Filed April 7, 1938

2 Sheets-Sheet 2



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2,175,488

FOOTREST

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Application April 7, 1938, Serial No. 200,638

1 Claim. (Cl. 155—169)

The invention here disclosed relates to foot rests.

Objects of the invention are to provide a comfortable support for the feet, which can be easily immediately adjusted to the desired height and inclination, which will form a desirable article of furniture and which will be of such construction that when fully lowered, it will offer no obstruction to a person stepping over the same.

The foregoing and other desirable objects are attained in this invention by the novel features of construction, combinations and relations of parts hereinafter defined, illustrated in the accompanying drawings and broadly covered in the claim.

The drawings illustrate several different forms of the invention. It will be realized, however, that the structure may be further modified and changed all within the true intent and broad scope of the invention.

Fig. 1 is an end view of an embodiment of the invention.

Fig. 2 is a side elevation of the same.

Fig. 3 is an enlarged broken sectional detail of the ratchet holding mechanism.

Fig. 4 is a detached detail view of one of the ratchet members.

Fig. 5 is a further enlarged broken sectional detail illustrating modifications of the ratchet mechanism and the cushion supporting means.

Fig. 6 is a broken sectional view on a plane at right angles to that of Fig. 5.

Fig. 7 is a broken sectional detail of another form of ratchet means.

As best shown in Figs. 1 and 2, the device consists broadly of a stand or base construction having spaced uprights 10, which are connected only at the bottom as indicated at 11, and to the upper separated ends of which there are pivoted at 12, arms or levers 13, to the free ends of which are pivotally connected at 14, a foot or lower leg supporting pad or cushion 15.

Special ratchet mechanism is provided for holding the cushion carrying arms in various positions of vertical adjustment.

As shown in Fig. 3, such ratchet mechanism may consist of face ratchets, in the form of companion ratchet discs, with one pair 16, secured at 17, in seats 18, in the ends of the arm 13, and the other pair 19, similarly secured at 20, in seats 21, in the inner faces of the uprights 10. The first mentioned ratchet discs 16, have central pivot studs 22, swivelling in the ratchet discs 19. Springs 23, on the outer end portions of the pivot studs and engaged between the backs of ratchet

discs 19, and flanged screws 24, engaged in the ends of the studs operate to draw the pivoted ends of the arms against the uprights 10, thus to hold the ratchet teeth of the discs fully engaged. These teeth however are shallow enough to slip over each other in the lifting direction of the arms in Fig. 1, the uprights springing slightly apart in permitting such ratcheting movement. The outer ends of the spring held pivot studs may be covered over by ornamental caps, such as indicated at 25.

The pad 15 need be only large enough to comfortably support the lower legs, it being known that the greatest ease and actual rest is attained with the feet actually projecting over the edge of the cushion, so that the weight of the legs does not come on the heels. This enables a relatively small, that is, a quite short and narrow cushion to be employed and the entire structure therefore to be of a conveniently small size. The unconnected condition of the sides of the stand leaves clear space above the pad for the feet and lower legs, through a wide range of vertical adjustment. Because of the possibility of utilizing the full range of vertical adjustment, the levers or supporting arms 13, can be quite short, providing as they do a vertical range of adjustment equivalent to double their length.

The pad 15 is shown as hung by end brackets 26, pivoted to the arms at 14, on centers above the center of gravity of the pad, so that the pad will normally swing down as indicated and adjust itself automatically to the incline of the legs, which may be slanting downward with the pad low, horizontal in an intermediate position or actually slanting upward with the cushion raised in the upper range of support.

The cushion may be raised to any desired level by a simple lifting movement, the ratchet catching and holding at any desired point of adjustment. Lowering of the cushion is readily effected by simply swinging it upward over and beyond the top center from which position it may lower by gravity or be easily forced downward to the extreme low position indicated in broken lines, Fig. 1. In this lowered relation, the supporting cushion is down out of the way and if still left in position in front of the chair of the user, may be readily stepped over through the clear space between the uprights.

To avoid the necessity of swinging the cushion all the way over the front of the stand to lower it, releasing means may be provided for the ratchet holding devices. A construction of this design is illustrated in Figs. 5 and 6, where sepa-

ration of the ratchet discs is effected by simply swinging the cushion to a certain releasing position.

In Figs. 5 and 6, the construction of the ratchet mechanism is modified to the extent of mounting the second ratchet member 19a, slidingly on a squared portion 27, of the flanged hub 28, in which the pivot stud engages, said ratchet disc being forced toward the companion disc by springs 29, and under control of a cam ring 30, rotatably engaged on the cylindrical end portion 31, of the same hub. When the high portion of this cam ring is engaged with the abutment pins 32, as in Fig. 5, the ratchet disc 19a, will be forced back out of engagement with the companion ratchet 16a. When however, the cam ring is turned so that the low portions 33, are opposite the abutment pins 32, the springs 29 will hold the movable ratchet disc in engagement with the ratchet disc on the cushion carrying arm 13. The position of the cam ring is controlled in the present illustration by pins 34, carried by the stationary ratchet disc 16a, projecting toward the cam ring in position to engage radially extending pins 35, on that ring. It will be clear from Fig. 6 that by swinging the cushion in one direction, for instance, to the full top position, the cam rings can be turned far enough to engage the high points of the same with the abutment pins 32, to thrust back the movable ratchets, thus to free the cushion from the ratchet control and permit it to be lowered. Then by fully lowering the cushion or possibly swinging it past the fully lowered position, the other pins 35, on the cam rings may be engaged by pins 34, to swing the cam rings back into position for the low portions to engage pins 32, releasing the movable ratchets and again placing the device under ratchet control where the cushion

will be automatically caught and held supported in any desired position of vertical adjustment.

Other forms of holding ratchets may be employed, such as the spring wrap type indicated in Fig. 7, and comprising in each instance, a helical spring 36, anchored at 37, to the swivel plate 38, on the supporting arm 13, and adapted to rotate freely about the pivot stud 39, on the supporting pedestal 10, as the arm is raised and to frictionally hold with a wrapping engagement as the arm starts to lower. Devices of this type therefore will enable the supporting cushion to be raised to any desired level and to be held at such levels.

To more fully brace the supporting arms, they may be connected at their free ends by a rigid stay-rod such as shown at 40, in Figs. 5 and 6, and which rod then forms a pivot mounting for the cushion.

The spring wrap form of ratchet is particularly simple, compact and silent in operation. Various other forms of ratchet supports may be provided.

The structure is of particularly simple and sturdy design and such as can be made up into attractive, desirable articles of furniture.

What is claimed is:

An adjustable foot rest of the character disclosed, comprising in combination a stand having spaced uprights connected only at the bottom, arms pivotally connected with the upper ends of said uprights, a leg supporting pad pivotally hung on the free ends of said arms, cooperating face ratchets attached to said arms and uprights, one set of said ratchets separable from the companion ratchets and cam means governed by the swinging movement of said arms for effecting separation and re-engagement of said ratchets.

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