Jan. 24, 1933. J. KUPSKI 1,895,226

STOOL SEAT POSITIONING MEANS

Filed May 11, 1931

Fig. 1

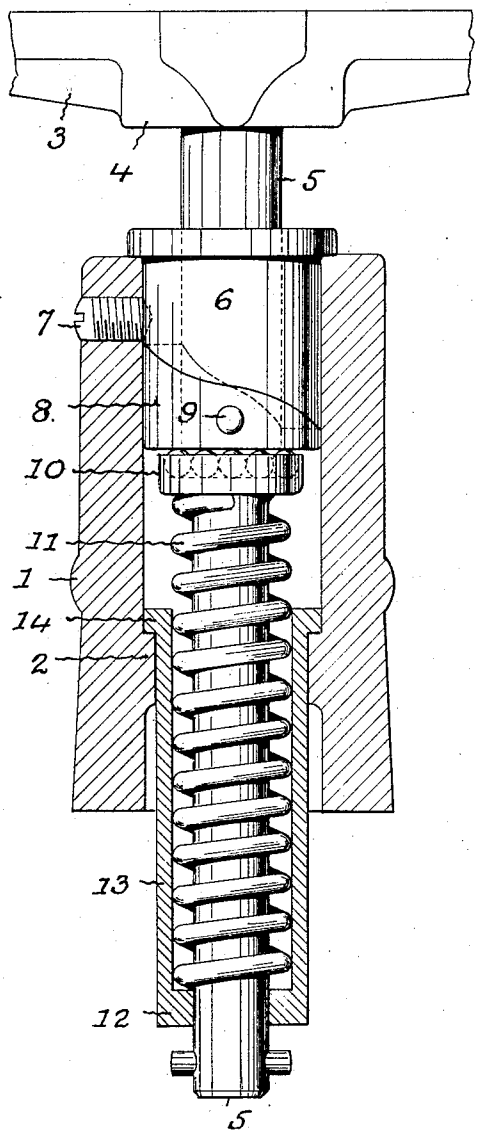
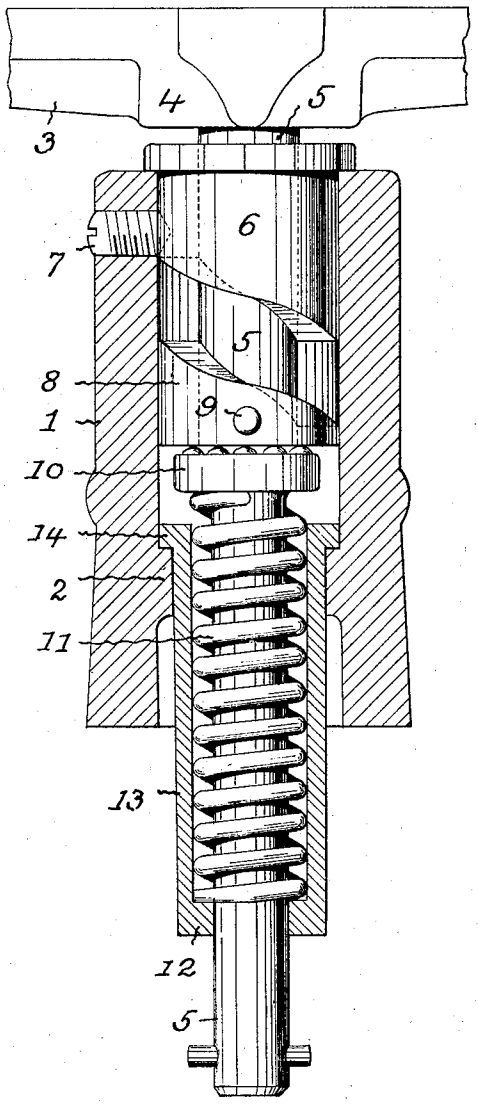


Fig. 2



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Patented Jan. 24, 1933 1,895,226

UNITED STATES PATENT OFFICE

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STOOL SEAT POSITIONING MEANS

Application filed May 11, 1931. Serial No. 536,333.

This invention relates to that type of spring actuated cam mechanisms whereby the seats of lunch and like counters are returned to a normal and predetermined position after being left by an occupant in a partially turned condition, either to the right or to the left. And this improvement has for its object:—

To provide a structural formation and combination of parts in a mechanism for the above mentioned purpose which when an occupant is in the stool seat, the cam members will assume a position out of operative contact, so that the turning movement of the seat in either direction is free from interference on the part of the cams, and with which, as the occupant vacates the stool seat, leaving the same in a partially turned position in either direction, the cam members will automatically return to a condition of engagement, and move the empty stool seat to its normal position, all as will hereinafter more fully appear. In the accompanying drawing:—

Fig. 1 is a detail sectional elevation, illustrating the parts in a position of rest with the cam members in a fully engaged condition.

Fig. 2 is a similar view illustrating the parts in a position of use with the cam members in a disengaged condition.

Like reference numerals indicate like parts in both views.

As usual in the present type of automatic stool seat positioning means the construction involves an upper non-revoluble cam sleeve, a companion lower revoluble cam sleeve, and an associated compression spring tending to yieldingly force the cam faces of said sleeves to their fully engaged condition.

In said construction the fixed supporting standard 1 is of the usual tubular form, with the upper portions of its central bore of a cylindrical or like guiding formation and with such upper portion of said bore ending at its lower end in an inturned annular flange, 2 forming a support for the hereinafter described bushing by which the operating spring of the mechanism is supported in operative relation to the other parts of the mechanism.

The carrying spider 3 for the stool seat has the usual central hub portion, 4 which has fixed attachment with the upper end of the pivot pintle, 5 of the mechanism.

The upper cam sleeve 6 of the mechanism is of an annular form and fits the upper end of the bore of the pedestal 1 in which it is fixedly secured by a radial clamping screw 7 or other equivalent fastening means. In this construction the central orifice or bore of the sleeve 6 affords a guiding passage for the pintle 5 in its movement to bring the hereinafter described surfaces into and out of engagement.

The companion lower cam sleeve 8 of the mechanism, is of a like annular formation and has fixed attachment by a cross-pin 9, or like means on the pivot pintle 5, so as to have vertical and turning movements with said pintle, the stool seat and its carrying spider 3, aforesaid.

In the preferred construction shown, the lower cam sleeve 8 rests upon a collar 10, arranged to encircle the pivot pintle 5 without turning engagement therewith, and adapted to act as an intermediate bearing member between the lower cam sleeve 8 and the upper end of the operating spring 11 of the mechanism.

The operating spring 11 above referred to is of the coiled or helical compression type and is arranged to encircle the pivot pintle 5 with its upper end bearing against the aforesaid collar 10, and with its lower end resting upon an inturned flange 12 of bushing 13, supported at its upper end by an out turned flange 14 engaging the annular flange 2 of the pedestal 1.

The cam faces of the fixed and movable cam sleeves 6 and 8 aforesaid, are counterpart one to the other and in this construction are formed by the surface shaping of adjacent ends of the sleeves on an angle oblique to the longitudinal axis of the sleeves and the parts associated therewith.

With the construction and arrangement above described as a person occupies the seat of the stool, the weight of such person moves such seat and the parts fixedly associated therewith a distance downward sufficient to effect an entire separation of the cam faces

of the cam sleeves 6 and 8, and so that the stool seat may turn in either direction free from impedance from said cam parts.

Due to a forcible compression of the spring 11 in the operation of the parts just described, said spring as the occupant departs from the stool seat, acts to force the lower movable cam sleeve 8 upwardly to engage the cam face thereof with the cam face of the fixed upper cam sleeve 6, and effect a return of the stool seat and associated parts to a required normal position, from a displaced position in either direction and in which said parts were left as the occupant leaves the stool seat.

Having thus fully described my invention what I claim as new, is:—

1. In a stool seat positioning means, the combination of a tubular pedestal, a seat carrying spider having a central depending pintle, an upper cam sleeve fixed in the bore of the tubular pedestal and having a central passage for guiding engagement with the aforesaid pintle in the vertical movement thereof, a lower cam sleeve having fixed attachment to said pintle at the mid-height of the same, the adjacent faces of the cam sleeves having a cam formation adapted to impose independent vertical movement on the lower cam sleeve, a coiled spring encircling the lower portion of said pintle and having abutment at one end with the under face of the lower cam sleeve and at its other end on a fixed member of the tubular pedestal.

2. In a stool seat positioning means as specified in claim 1 aforesaid, and wherein the support for the lower end of the said spring comprises an annular bushing having an out-turned flange at its upper end for holding engagement in the bore of the tubular standard and an inturned flange at its lower end for supporting engagement with the lower end of the spring.

3. In a stool seat positioning means as specified in claim 1 aforesaid, and wherein a loose friction reducing collar surrounds the pintle and has interposed relation between the upper end of the spring and the lower end of the lower cam sleeve.

In testimony whereof I hereunto affix my signature.

JOSEPH KUPSKI.