

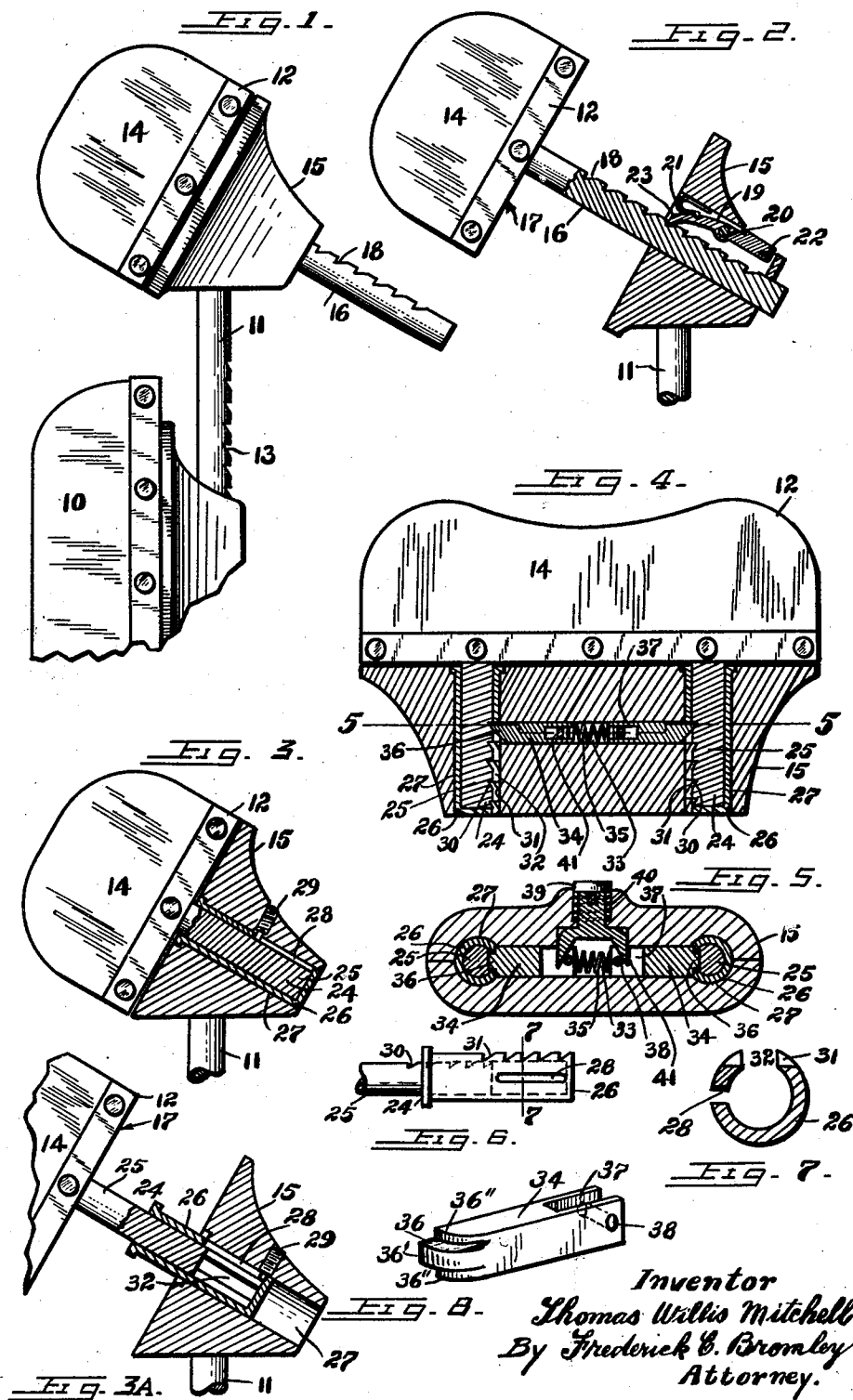
Aug. 2, 1932.

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1,869,765

ADJUSTABLE HEADREST

Filed May 15, 1931



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## UNITED STATES PATENT OFFICE

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## ADJUSTABLE HEADREST

Application filed May 15, 1931. Serial No. 537,566.

The invention relates to improvements in adjustable head-rests as described in the present specification and shown in the accompanying drawing which forms part of the same.

The invention primarily appertains to a barber's chair and has for its object to provide a compound head-rest which in addition to the conventional adjustment by which it is raised and lowered, has means by which it may be shifted towards the natural position of the customer's head when comfortably reclining in the chair. By merely pulling the head-rest forward it is retained in one of a number of positions over a wide range of adjustment. Whilst more or less some kind of a forward adjustment is always necessary to comfortably rest the head in a barber's chair, this is more particularly so in the case of parties whose backs are in any way bent.

Such an adjustable head-rest promotes comfort in shaving or giving facial treatments, and furthermore is susceptible of analogous usage for other chairs, such as a dentist's chair.

Referring to the drawing, Figure 1 is an elevation depicting the head-rest supported in customary manner from the back of a barber's chair. In this view the head-rest is shown in its normal position.

Figure 2 is a similar view partly in section, but omitting the chair-back. In this view the head-rest is shown in an advanced position.

Figures 3 to 8 inclusive depict a modification to that illustrated in the previous figures.

Figure 3 is an elevation partly in section.

Figure 3A depicts the head-rest advanced and also partly in section.

Figure 4 is a plan view of the head-rest partly in section.

Figure 5 is a cross section taken on the line 5-5 of Figure 4.

Figure 6 is a detail of one of the two telescopic supporting elements of the head-rest.

Figure 7 is a cross section thereof on an enlarged scale and taken on the line 7-7 of said Figure 6.

Figure 8 is a perspective view of a click.

Like numerals of reference indicate corre-

sponding parts in each of the figures throughout the drawing.

In the drawing, the reference numeral 10 generally denotes the back of a barber's chair, and 11 the bar or bars that extend lengthwise thereof to support the head-rest 12. The bar or bars 11 are usually lengthwise adjustable by means of notches 13 so that the head-rest may be raised or lowered, which adjustment however does not form a part of the present invention.

In carrying out the present invention the pad 14 of the head-rest is separate and distinct from the stock 15, the latter being rigidly secured to or integral with the bar or bars 11, of which there are usually two.

In Figures 1 and 2, the pad 14 is mounted upon a rod 16 of which there may be a pair if so desired. The rod is fixedly attached to the pad and extends from its rear face 17 obliquely to the bars 11. Said rod is slidably mounted in the stock 15 and is provided with a series of notches 18 longitudinally arranged.

19 is a pawl pivoted at 20 in the stock 15 and urged into engagement with the notches 18 by a suitable spring as at 21. One end of the pawl is button-shaped as at 22 and is manually depressible for the purpose of disengaging the other end 23 from the engaged notch of the rod 16.

From the preceding description it will be manifest that when the pad 14 is in its normal position its rear face 17 abuts the stock 15 and the rod 16 projects outwardly from the stock—see Figure 1. When the pad is pulled outwardly from the stock the pawl or click rides over the notches and by engaging in the adjacent notch precludes retrograde movement, see Figure 2. Accordingly the head-rest may be adjusted to a forward position that is comfortable to each individual customer.

It is recognized that the projection of the rod in the normal position of the head rest is not desirable as it might catch in the clothes of the operator, hence in the modification illustrated in Figures 3 to 8 inclusive a telescopic construction is employed that obviates this.

In carrying this out, the rod is replaced by

a telescopic member 24, there preferably being a pair of such telescopic members as shown. These members are spaced from each other, and each consists of an inner member 5 25 fixedly secured to the pad 14 and an outer member 26 in the form of a tube that is slidable in the bore 27 of the stock 15. When these telescopic members are collapsed as shown in Figures 3 and 4 they do not project rearwardly of the stock, but upon being extended support the pad in a forward position as shown in Figure 3A.

The outer members 26 may have some means whereby their forward movement is limited and this could be accomplished in various ways, such as for example a lengthwise slot as at 28 cut or otherwise fashioned in each outer member so as to receive the end of a grub screw 29. In this case the length of the slot determines the extent of movement of the outer members. The inner member may likewise be supplied with means for limiting its forward movement, such means however is not shown inasmuch as a similar expediency could be employed to that of the slot and grub screw.

The inner and the outer members of each telescopic element are provided with rack teeth as at 30 and 31 respectively. The pitch of the teeth of the inner member corresponds to that of the outer member and is in register therewith. The teeth of the outer member are preferably of a greater depth and are longitudinally interrupted by a slot as at 32 that renders the inner teeth accessible.

The stock 15 has a suitable opening 33 extending between the companion telescopic members and at right angles thereto. In this opening is disposed a pair of pawls or clicks 34, 34, preferably of a square cross section, as illustrated, so as to slide in the opening 33 without turning; which opening is of a similar cross section for this purpose.

The clicks have their adjacent end faces separated by a space in which is lodged a helical coil-spring 35 that engages said end faces in order to apply pressure upon the clicks to urge them into engagement with the teeth of the respective inner and outer members of each telescopic member. To enable each click to engage the teeth 31 and 32 at the same time it has a stepped end 36 comprising an intermediate portion 36' that enters the slot 32 so as to engage the teeth 30 of the inner member. The outer portions 36'', 36'', engage the teeth 31.

It will be manifest that by this construction and arrangement of parts the click of each telescopic element yields as the inner and the outer members are withdrawn as the pad is pulled out. Retrograde movement of these members is prevented by the engagement of their teeth with the click. By reason of the teeth 31 of the outer member being slightly deeper than the teeth 30 of the inner

member, the outer member will not advance until the inner member is fully drawn out.

Each click has a bifurcation 37 at their adjacent ends, in which is a transverse pin 38. Surmounting the clicks is a button 39 held in a raised position by a spring 40 and having integral cams 41, 41, fitting in the respective bifurcations of the clicks. Said cams have inclined faces that engage the pins 38. Accordingly when it is desired to withdraw the clicks from the telescopic members it is simply necessary to depress the button 39 so that the cams simultaneously force the clicks towards each other. When the clicks are retracted the pad can be pushed back to its normal position.

What I claim is:—

1. A head-rest composed of a stock, a separate and distinct pad, a telescopic element consisting of an outer member slidably mounted in the stock and an inner member secured to the pad, teeth provided on said inner and said outer members, and click means for engaging said teeth to retain the members in various positions of adjustment.

2. A head-rest composed of a stock, a separate and distinct pad, a telescopic element consisting of an outer member slidably mounted in the stock and an inner member secured to the pad, teeth provided on said inner and said outer members, a click mounted in the stock and engaged with said teeth, and means for actuating the click.

3. A head-rest composed of a stock, a separate and distinct pad, a telescopic element consisting of an outer member slidably mounted in the stock and an inner member secured to the pad, said outer member having a lengthwise slot and teeth adjacent to the edges thereof, said inner member having teeth accessible through said slot, a stepped click mounted in the stock and engaged with the teeth of the inner and the outer members at the same time, and means for actuating the click.

4. A head-rest composed of a stock, a separate and distinct pad, a telescopic element consisting of an outer member slidably mounted in the stock and an inner member secured to the pad, said outer member having a lengthwise slot and teeth adjacent to the edges thereof, said inner member having teeth accessible through said slot, a stepped click mounted in the stock and engaged with the teeth of the inner and the outer members at the same time, a spring so mounted in the stock as to urge the click into engagement with said teeth, a pin borne by the click, a spring-urged button mounted in the aforesaid stock, a cam integral therewith, said cam having an inclined face for engaging the pin to retract the click.

5. A head-rest composed of a stock having a pair of parallel bores joined by an opening, a telescopic element mounted in each of said

bores and each composed of an outer tubular member slidable in the stock and an inner member, a pad secured to each inner member, each outer member having a lengthwise slot and teeth adjacent thereto, said inner members having teeth accessible through the slots of the outer members, a pair of aligned clicks mounted in the opening of the stock and having stepped ends for simultaneous engagement of the teeth of both the inner and the outer members of the respective telescopic elements, a compression spring interposed between the click, the ends of the clicks adjacent to said spring being bifurcated, pins lodged in the said bifurcated ends, a spring-urged button mounted in the stock, a pair of cams depending therefrom, said cams entering the bifurcated portions of the clicks and having inclined faces engaging said pins.

Signed at Wingham Ontario, Canada, the 28th day of April, 1931.

THOMAS WILLIS MITCHELL.