(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 0 862 877 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
09.09.1998 Bulletin 1998/37

(51) Int. Cl.[6]: **A47D 13/02**

(21) Application number: **97500220.5**

(22) Date of filing: **19.12.1997**

(84) Designated Contracting States:
AT BE CH DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: **03.03.1997 ES 9700559 U**

(71) Applicant: **PLAY, S.A.**
08184 Palau de Plegamans (Barcelona) (ES)

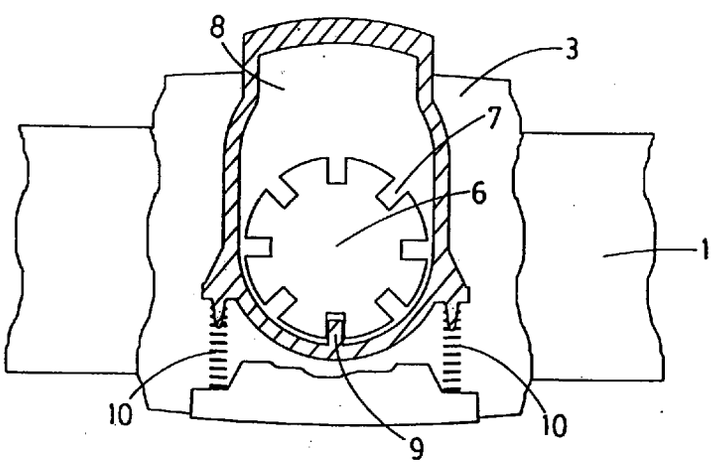
(72) Inventor: **Jane Stopp, Joaquin**
08184 Palau de Plegamans, Barcelona (ES)

(74) Representative:
Ponti Sales, Adelaida et al
Consell de Cent 322
08007 Barcelona (ES)

(54) Handle applicable to child seats and the like

(57) It is provided with a handhold (3) having means for rotation thereof with respect to the handle (1); the means for rotation of the handhold include a wheel (6) attached to the handle (1) and provided with a plurality of recesses (7), a movable element (8) arranged on the handhold and provided with a projection (9) complementary to said recesses (7), and elastic means (10) arranged between said movable element (8) and the handhold (3), whereby said elastic means (10) insert said projection (9) in one of the recesses, rotation of the handhold with respect to the handle being effected by pushing the movable element (8) against the action of the elastic means (10), in such a way that the projection (9) leaves one of the recesses (7).

FIG.4



EP 0 862 877 A2

Description

The present invention relates to a handle applicable to child seats and the like, which includes a handhold at its upper part, said handhold having means for its rotation with respect to the handle.

BACKGROUND OF THE INVENTION

Known in the art are seats adapted for transporting children. Said seats are usually of one of two types, one type having wheels, made of fabric and foldable, while the other type is made of a rigid material, normally plastic, and has a handle to make it easier to carry.

The seats with wheels are generally used for relatively long journeys, and these seats can be folded for transporting them, for example, in a car.

The seats of rigid material and with a handle are generally used for shorter journeys and are usually more comfortable.

This type of seat made of rigid material has the disadvantage of being awkward to transport, since the handle must be held with the hand in a perpendicular direction with respect to the direction of travel of the person carrying the seat.

Some seats were designed to solve this disadvantage, said seats having a handhold which is rotary with respect to the handle; they allow the handhold to rotate with respect to the handle, preferably by 90°, to make transportation of the seat more comfortable.

These seats nevertheless had the disadvantage that the mechanisms of the means of rotation of the handhold with respect to the seat were too complicated and difficult to fit.

DESCRIPTION OF THE INVENTION

The handle of the invention solves the described disadvantages, while presenting other advantages which will be described below.

The handle of the invention applicable to child seats and the like is characterized in that said means of rotation of the handhold include a wheel attached to the handle and provided with a plurality of recesses, a movable element arranged on the handhold and provided with a projection complementary to said recesses, and elastic means arranged between said movable element and the handhold, in such way that said elastic means insert said projection in one of the recesses, the rotation of the handhold with respect to the handle being effected by pushing the movable element against the action of the elastic means, in such a way that the projection leaves one of the recesses.

Thanks to this characteristic, the seat or similar can be carried conveniently by gripping the handhold, with the hand parallel to the direction of travel of the person carrying the seat, the means of rotation of the handhold with respect to the seat consisting in a mechanism which is easy to manufacture and fit.

Advantageously, said handle also includes means for placing the handle in a plurality of stable positions with respect to the seat or the like.

Thanks to this characteristic the handle can be placed in different positions, to make it easier to carry or to set it down on the ground or similar surface.

According to a preferred embodiment, the means for placing the handle in a plurality of positions with respect to the seat include a sleeve of circular cross section, attached to the seat and provided with a plurality of recesses, a spindle centred with respect to said sleeve and also attached to the seat, a bushing attached to the handle and with a slightly oblong cross section, which surrounds said sleeve and which is provided with at least one projection directed inwards and complementary to said recesses, an oblong groove in the handle inside which the spindle runs, and elastic means arranged between the position opposite to the projection or projections of the bushing and the spindle attached to the seat, whereby upon rotation of the handle with respect to the seat said elastic means force the projection or projections into the recess or recesses corresponding to a stable position of the handle with respect to the seat, the projection or projections being allowed to leave the recess or recesses when the handle is pulled against the action of the elastic means.

Preferably, the means for placing the handle in a plurality of stable positions with respect to the seat also include a pushbutton arranged between the spindle and a bore in the sleeve, and elastic means which push said pushbutton towards said bore, the bushing also comprising a bore, whereby when the bore of the bushing and the bore of the sleeve are aligned the outer end of the pushbutton projects through the bore of the bushing, locking the rotation of the handle with respect to the seat, said locking action being released by pushing the pushbutton against the action of the elastic means.

Advantageously, the handle has a pair of projections near the handhold, said projections serving as a stand on the ground when the handle is in the lower stable position.

BRIEF DESCRIPTION OF THE DRAWINGS

For a better understanding of all that is set out in the present specification some drawings are attached in which, solely by way of example, a practical case of embodiment of the handle is shown.

In said drawings:

Figure 1 is a perspective view of a child seat fitted with the handle of the invention;

Figure 2 shows plan and elevation views of the upper part of the handle, incorporating a handhold;

Figure 3 is an elevation view of a child seat fitted with the handle of the invention, said handle being shown in four stable positions with respect to the

seat;

Figure 4 is a plan view in section, along line IV-IV of Figure 1, of the upper part of the sectioned handle, showing the means of rotation of the handhold with respect to the handle, the projection of the movable element attached to the handhold being inside one of the recesses of the wheel attached to the handle;

Figure 5 is a plan view similar to that of Figure 4, in which the handhold has been rotated through 90° with respect to the position shown in Figure 4, and with the movable element being forced against the action of the elastic means;

Figure 6 is a cross-section view of the means for placing the handle in one of the stable positions shown in Figure 3, with the end of the pushbutton projecting through the bore of the bushing attached to the handle; and

Figure 7 is a cross-section view similar to that of Figure 6, with the projections of the bushing that is attached to the handle being inserted into the bores of the sleeve that is attached to the seat to provide one of the stable positions shown in Figure 3.

DESCRIPTION OF A PREFERRED EMBODIMENT

As can be appreciated in Figure 1, the handle 1 of the invention can be applied to a child seat 2 or the like. The upper part of this handle 1 has a handhold 3 which can be rotated with respect to the handle 1.

As can be appreciated in greater detail in Figure 2, the handle 1 includes a movable element 4 whose actuation allows rotation of the handhold 3 with respect to the seat 2. The detailed description of the means of rotation of the handle 1 with respect to the seat 2 will be provided below when describing Figures 4 and 5.

The upper part of the handle 1 also includes a pair of projections 5 which, as can be appreciated in Figure 3, serve as a stand when the handle 1 is placed in the position in which it rests on the ground. Figure 3 shows this position and a further three stable positions of the handle 1 with respect to the seat 2. The means which permit the handle 1 to be placed in these stable positions will be described in detail in relation to Figures 6 and 7.

Figures 4 and 5 show the means of rotation of the handhold 3 with respect to the handle. These means of rotation include a wheel 6 attached to handle 1 and provided with a plurality of recesses 7, a movable element 8 arranged on the handhold 3 and provided with a projection 9 complementary to the recesses 7, and two springs 10 which push the movable element 8 so that the projection 9 is inserted into one of the recesses 7. The number of recesses 7 on the wheel 6 will determine the possible positions of the handhold 3 with respect to the handle.

In order to rotate the handhold 3 with respect to the handle 1, the movable element 8 is pushed against the action of the springs 10, in such a way that the projection 9 comes out of the recess 7 into which it had been inserted. When the handhold 3 has been placed in the desired position, the pressure on the movable element 8 is released and the projection 9 will be inserted into the recess 7 corresponding to that position.

Figures 6 and 7 show the means for placing the handle 1 in different positions with respect to the seat 2. Said means include a sleeve 11 of circular cross section attached to the seat 2 and provided with a plurality of recesses 14, a spindle 12 which is centred with respect to said sleeve 11 and is also attached to the seat 2, a bushing 17 also attached to the handle 1 and surrounding said sleeve 11, with a slightly oblong cross section and provided with three projections 13 directed inwards and complementary to the aforesaid recesses 14, an oblong groove 15 of the handle 1 inside which the spindle 12 runs, and a spring 16 arranged between the position opposite to the projections 13 of the bushing 17 and the spindle 12 attached to the seat. Thus, when the handle 1 is rotated with respect to the seat 2 said spring inserts the projections 13 into the recesses 14 corresponding to a stable position of the handle 1 with respect to the seat 2. To place the handle 1 in another position, the handle 1 must be pulled in the direction marked A in Figure 7, thus allowing the projections 13 to come out of the recesses 14 against the action of the spring 16, and then rotated until it is in the desired position.

Said means for placing the handle 1 in a plurality of stable positions with respect to the seat 2 also include a pushbutton 18 arranged between the spindle 12 and a bore 19 of the sleeve 11, and a spring 20 which pushes said pushbutton 18 towards said bore 19, the bushing 17 also comprising a bore 21, whereby when said bores 19, 21 are aligned, the outer end of the pushbutton 18 projects through the bore 21 of the bushing 17 and rotation of the handle 1 with respect to the seat 2 is locked; said locking action can be released by actuating the pushbutton 18 against the action of the spring 20.

As is clear, Figure 3 shows four preferred positions in which the handle 1 can be placed, but it could be placed in any desired position.

Independent of the object of the invention are the materials used in manufacturing the components of the handle, the shapes and dimensions thereof and all the accessory details which might be presented, as long as they do not affect its essential nature, which is defined in the attached claims.

Claims

1. Handle applicable to child seats and the like, which includes a handhold (3) at its upper part, said handhold having means for rotation thereof with respect to the handle (1), characterized in that said means for rotation of the handhold include a wheel (6) attached to the handle (1) and provided with a plurality of recesses (7), a movable element (8)

arranged on the handhold and provided with a projection (9) complementary to said recesses, and elastic means (10) arranged between said movable element and the handhold, whereby said elastic means (10) insert said projection (9) in one of the recesses (7), rotation of the handhold (3) with respect to the handle (1) being effected by pushing the movable element (8) against the action of the elastic means (10), in such a way that the projection (9) leaves one of the recesses (7).

2. Handle applicable to child seats and the like, as claimed in Claim 1, characterized in that it includes means for placing the handle (1) in a plurality of stable positions with respect to the seat (2) or the like.

3. Handle applicable to child seats and the like, as claimed in Claim 2, characterized in that the means for placing the handle (1) in a plurality of positions with respect to the seat (2) include a sleeve (11) of circular cross section, attached to the seat (2) and provided with a plurality of recesses (14), a spindle (12) centred with respect to said sleeve (11) and also attached to the seat, a bushing (17) attached to the handle (1) and with a slightly oblong cross section, which surrounds said sleeve (11) and which is provided with at least one projection (13) directed inwards and complementary to said recesses (14), an oblong groove (15) in the handle inside which the spindle runs, and elastic means (16) arranged between the position opposite to the projection or projections (13) of the bushing (17) and the spindle (12) attached to the seat, whereby upon rotation of the handle with respect to the seat said elastic means (16) force the projection or projections (13) into the recess or recesses (14) corresponding to a stable position of the handle with respect to the seat, the projection or projections being allowed to leave the recess or recesses when the handle is pulled against the action of the elastic means (16).

4. Handle applicable to child seats and the like, as claimed in Claim 3, characterized in that the means for placing the handle (1) in a plurality of stable positions with respect to the seat (2) also include a pushbutton (18) arranged between the spindle (12) and a bore (19) in the sleeve (11), and elastic means (20) which push said pushbutton towards said bore, the bushing (17) also comprising a bore (21), whereby when the bore (21) of the bushing and the bore (19) of the sleeve are aligned the outer end of the pushbutton (18) projects through the bore (21) of the bushing, locking the rotation of the handle with respect to the seat, said locking action being released by pushing the pushbutton (18) against the action of the elastic means (20).

5. Handle applicable to child seats and the like, as claimed in Claims 1 and 2, characterized in that the handle has a pair of projections (5) near the handhold (3), said projections serving as a stand on the ground when the handle is in the lower stable position.

FIG.1

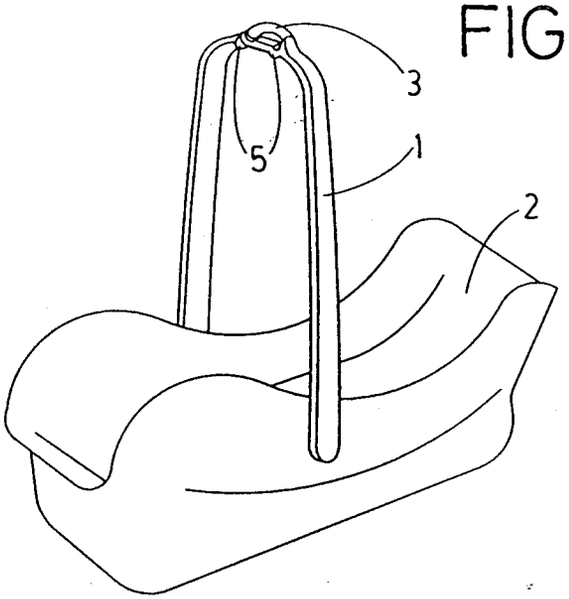


FIG.2

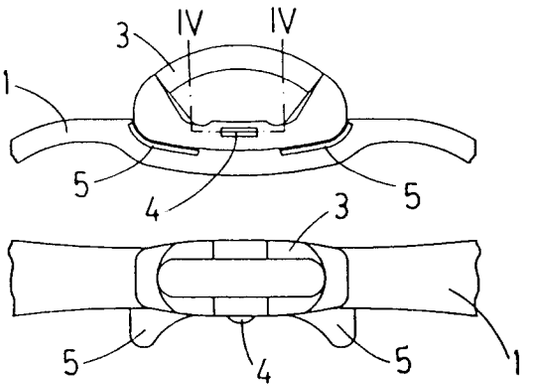


FIG.3

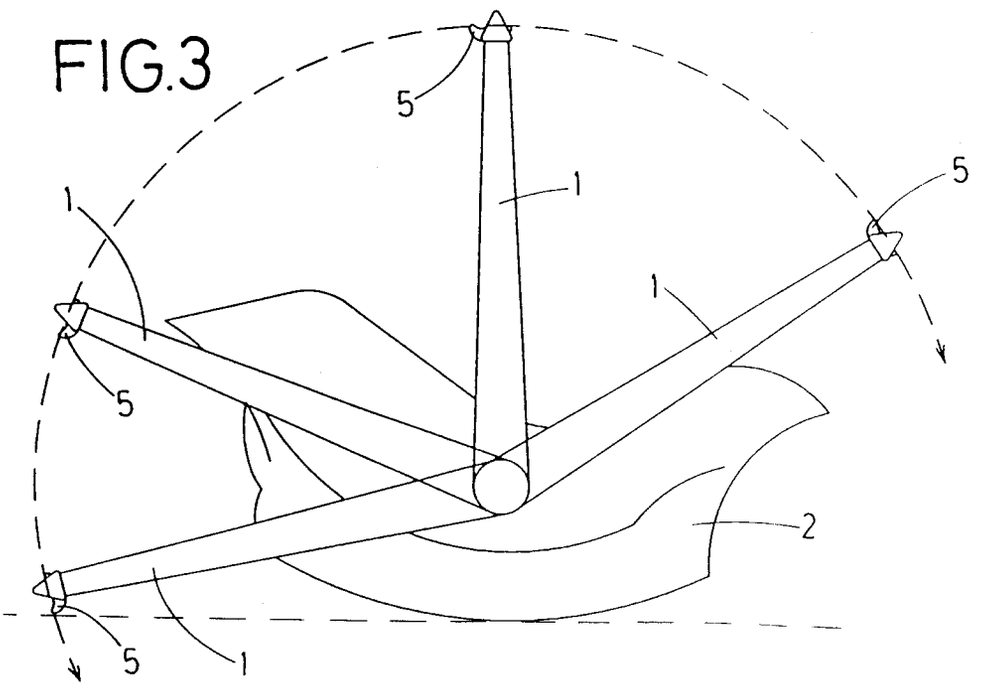


FIG.4

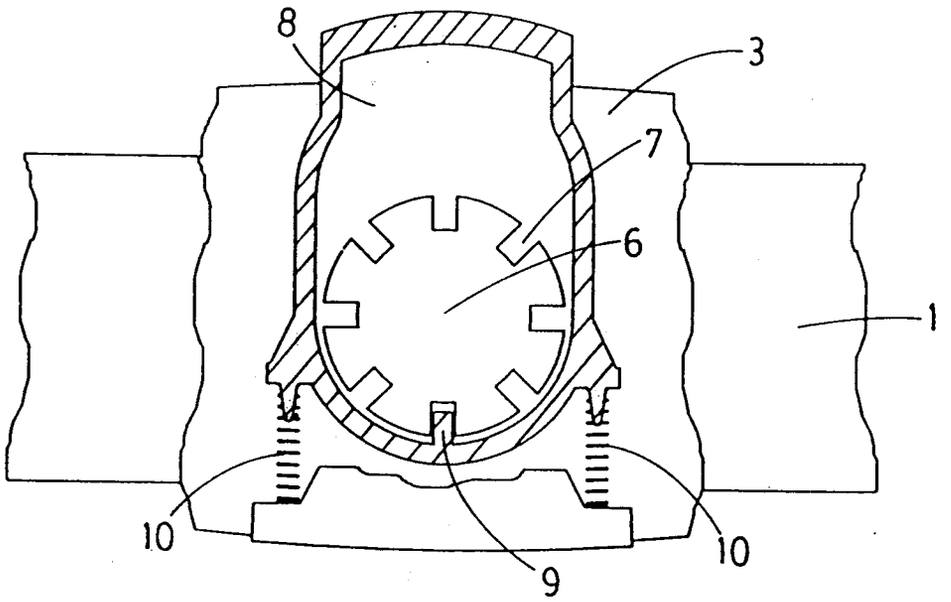


FIG.5

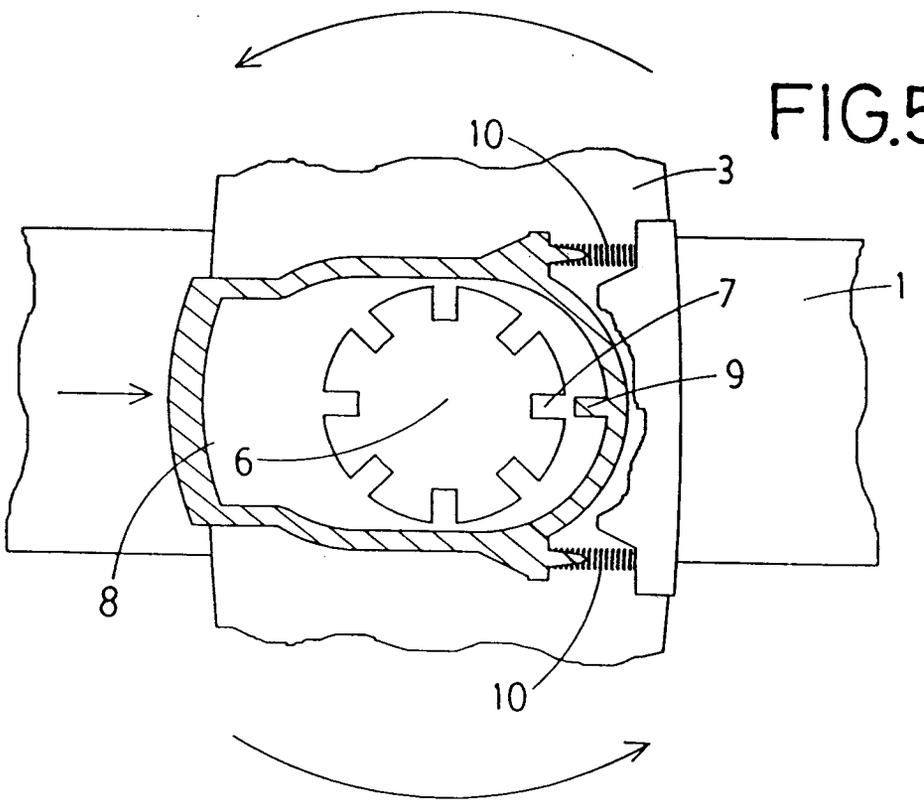


FIG.6

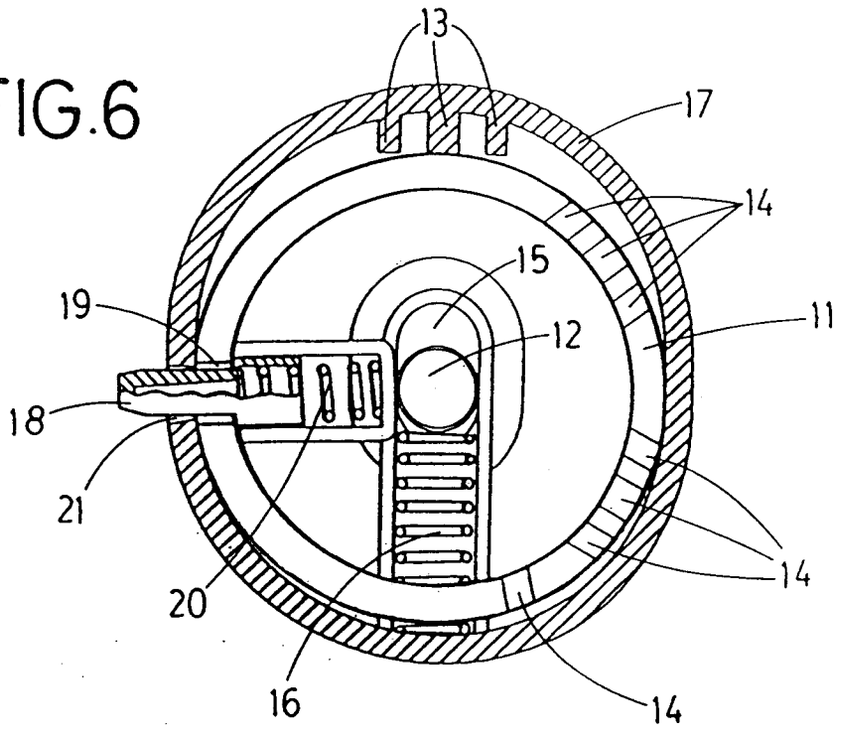
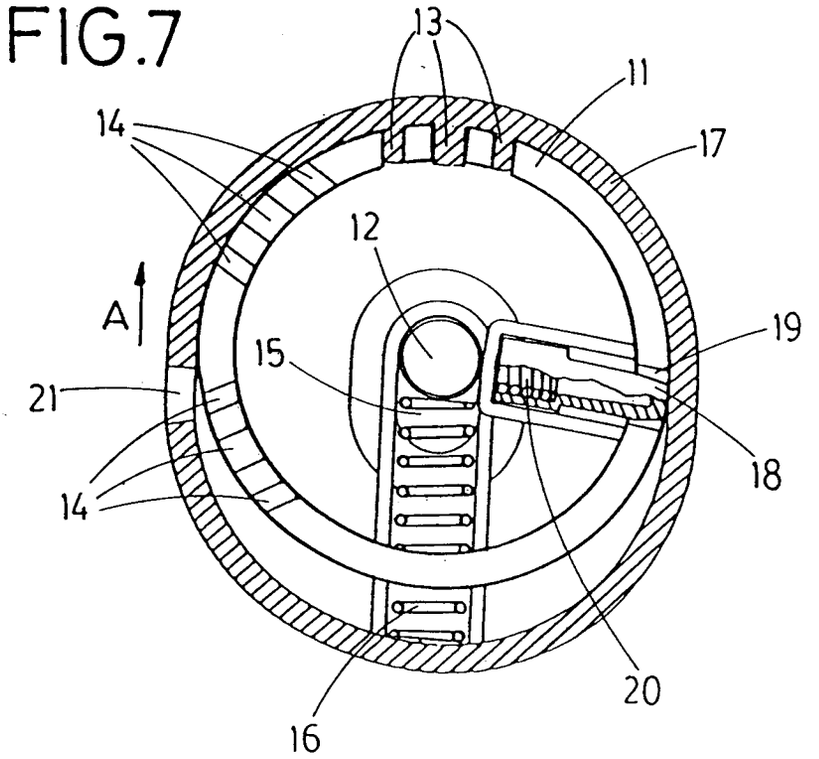

13
17
14
15
19
12
11
18
21
14
20
16
14

FIG.7


13
11
14
17
12
A
19
15
21
18
14
20
16