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(54) **Cam disc operating the ignition modules**

(57) The invention is related to the cam disc which provides the ignition module enabling the furnace burners in the gas taps to be flamed, the ignition module enabling constant electricity transmittance to the electric grill part at bottom parts of furnaces and at the same time the ignition module enabling the lamp of the bottom part

of the furnace to be operated by a single part. This cam disc is mounted to the tap shaft easily and it operates the ignition modules upon the rotation of the shaft by means of moving synchronized with the tap shaft. At the same time, this cam disc provides the safety valve press pin, which will enable the safety valve to be operated that will be placed on the tap, to move forwards.

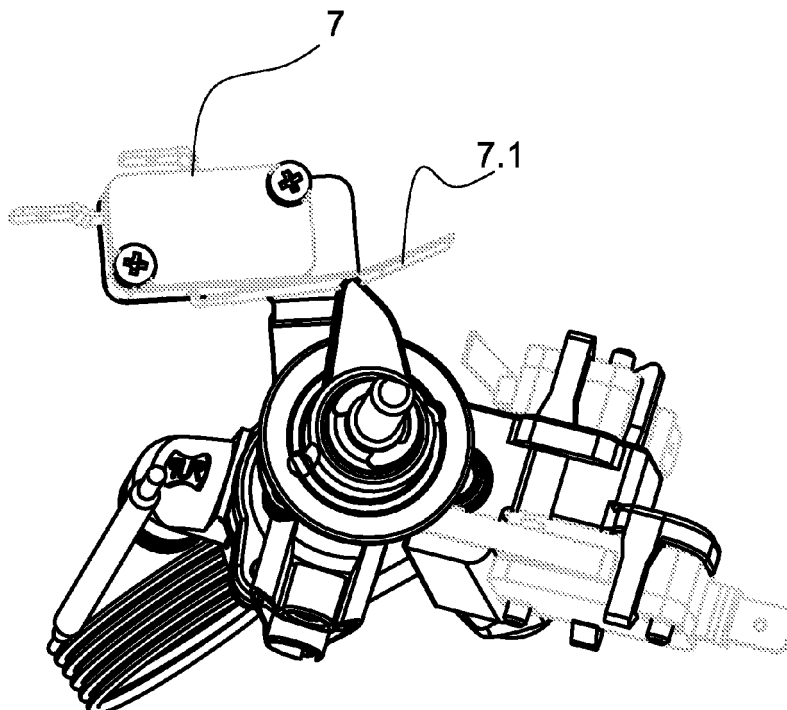


FIGURE 2

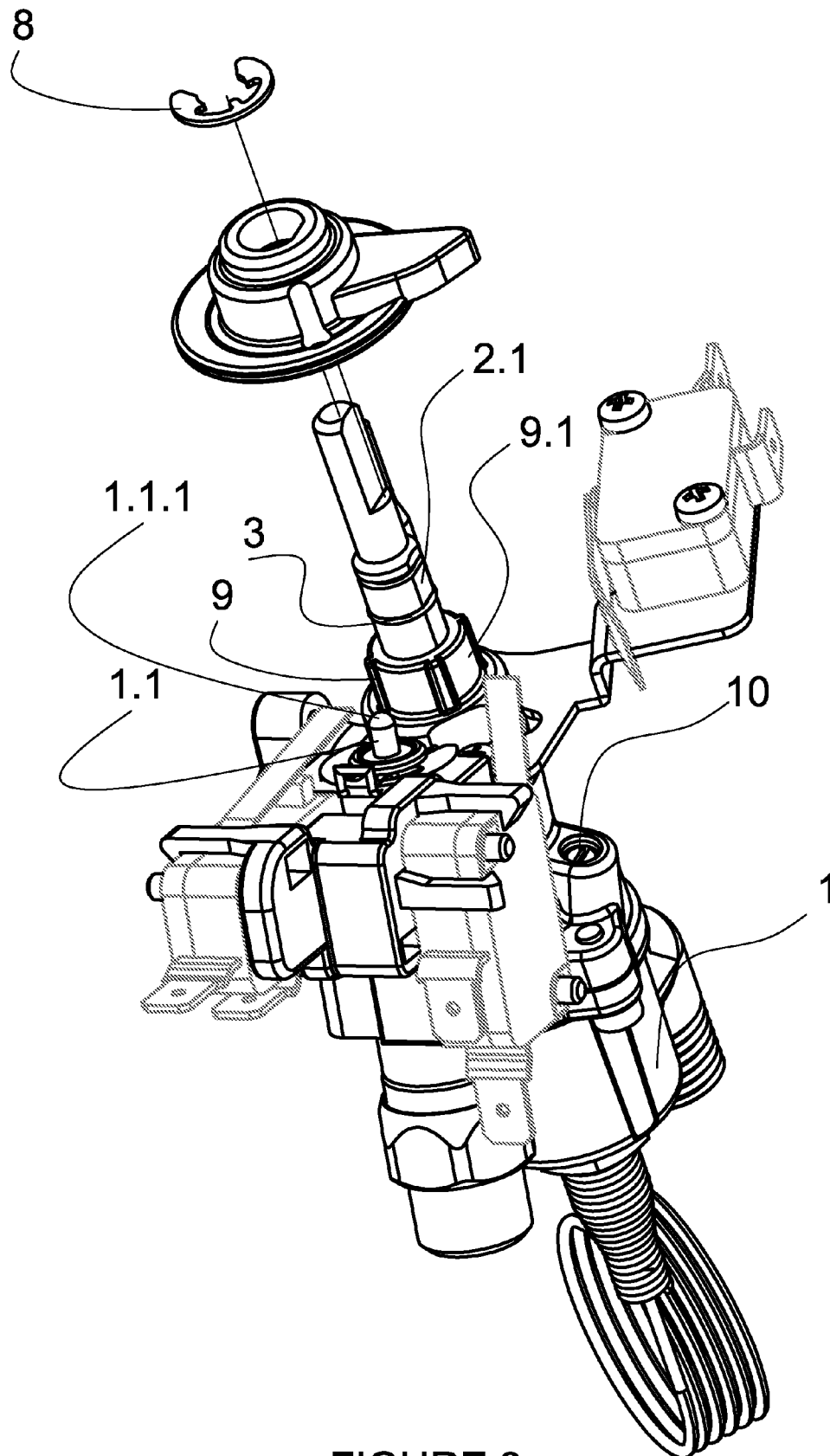


FIGURE 3

Description

TECHNICAL FIELD

[0001] The invention is related to the cam disc which provides the ignition module enabling the furnace burners in the gas taps to be flamed, the ignition module enabling constant electricity transmittance to the electric grill part at bottom parts of furnaces and at the same time the ignition module enabling the lamp of the bottom part of the furnace to be operated by a single part. This cam disc is mounted to the tap shaft easily and it operates the ignition modules upon the rotation of the shaft by means of moving synchronized with the tap shaft. At the same time, this cam disc provides the safety valve press pin, which will enable the safety valve to be operated that will be placed on the tap, to move forwards.

[0002] It is possible to perform four abovementioned functions on the tap by means of only this cam disc that is the subject of the invention. Detailed information will be given in the detailed description of the invention about how this operation is performed.

[0003] These types of discs are available and used currently. However, there has been no study encountered in the literature that resembles to our invention and that can perform more than one function currently.

OBJECT OF THE INVENTION

[0004] The object of our invention is to operate the press type ignition module to enable the other part to be heated by electricity while enabling one part of the furnace to be heated by gas, the ignition module to enable the burners to be flamed and the ignition module to enable the lamp of the bottom part of the furnace to be lighted at the same time.

[0005] Another object of the invention is to enable the adjustment of the adjustment screw on the tap.

[0006] Another object of the invention is to move synchronized with the tap shaft by means of being mounted on the tap shaft.

[0007] The structural and characteristic features and all of the advantages of the invention will be clearly understood from the figures given below and the detailed description written with reference to these figures and therefore the invention should be evaluated regarding these figures and the detailed description.

BRIEF DESCRIPTION OF THE FIGURES

[0008]

Figure 1 is the perspective view showing the cam disc and the ignition modules mounted on the tap,

Figure 2 is the other side perspective view showing the cam disc and the ignition modules mounted on the tap,

Figure 3 is the schematic view showing the montage of the cam disc to the tap,

Figure 4 is the side view showing the cam disc and the ignition modules mounted on the tap and the ignition module being flamed which enables the tap shaft to flame the burners by means of being given forward,

Figure 5 is the side view showing the cam disc and the ignition modules mounted on the tap and the operation of the ignition module by rotating to the grill electricity part of the tap shaft and the ignition module to light the lamp,

Figure 6 is the perspective view of the cam disc,

Figure 7 is the other side perspective view of the cam disc,

Figure 8 is the side view of the cam disc,

Figure 9 is the perspective view of the tap shaft.

REFERENCE SIGNS LIST

[0009]

1. Gas tap

1.1. Press pin

1.1.1. Press pin round surface

2. Shaft

2.1. D shaped form of shaft

2.2. Between two grooves

2.3. First groove

2.4. Second groove

3. Segment

4. Cam disc

4.1. D-like form

4.2. Neck length of the cam disc (4)

4.3. Bottom surface of the cam disc

4.4. Angled surface

4.5. Inner diameter of the cam disc

- 4.6. Cam of the cam disc
- 4.7. Back surface of cam of the cam disc
 - 4.7.1. Angle of the back surface
- 4.8. Two holes on the cam disc
- 5. Grill ignition module
 - 5.1. Sheet of the grill ignition module
- 6. Burner ignition module
 - 6.1. Sheet of the ignition module going to burners
- 7. Lamp ignition module
 - 7.1. Sheet of the lamp ignition module
- 8. Moon segment
- 9. Cap
 - 9.1. Cap inner diameter
- 10. Adjustment screw

DETAILED DESCRIPTION OF THE INVENTION

[0010] The cam disc (4) that is the subject of the invention will now be tried to be explained in detail. There is a D-like form (4.1.) on the cam disc (4) that enables to be mounted on the tap (1) and that enables the cam disc (4) to be rotated with the tap shaft (2). This form (4.1.) is the same with the D-shaped form (2.1.) of tap shaft (2). By this means, the montage operator can mount the cam disc (4) that is the subject of the invention easily on the right direction. The neck length (4.2.) of the cam disc is narrower than the distance between two grooves (2.2.) on the tap shaft (2). There is segment (3) on the first groove (2.3.) on the shaft so as to prevent the forward movement of the cam disc before the cam disc (4) is mounted on the shaft. A second moon segment (8) is placed to the second groove (2.4.) of the tap shaft so as to prevent the cam disc (4) from going off upon giving the tap shaft (2) forward. By this means, the cam disc (4) is connected on the tap shaft (2) in a rigid way. The inner diameter (4.5.) of the cam disc passes into the outer diameter (9.1.) of the cap (9) during connecting. By this way, the cap (9) makes bedding to the cam disc (4).

[0011] The tap shaft (2) is given forward so as for the ignition module (6) going to the burners to be operated. The bottom surface (4.3.) of the cam disc (4) operated synchronized with the tap shaft (2) starts to press towards the sheet (6.1.) of the burner ignition module (6) and by this means ignition is performed by means of turning on

the contact. At the same time, pressing process is performed to the top round surface (1.1.1.) of the safety valve press pin (1.1.) upon the pressing process and gas passage is enabled by means of providing opening of the safety valve. There is an angled surface (4.4.) at the end part of the bottom surface (4.3.) of the cam disc (4) during the pressing process. The angle of this angled surface (4.4.) may be between 10 and 60°. The angle of the angled surface (4.4.) of the cam disc that is the subject of the invention is preferably 15°.

[0012] When the tap (1) is in the turned off position, the cam (4.6.) of the cam disc (4) is in the pressing position to the sheet (7.1.) of the ignition module (7) to provide the required electricity for the lamp. This ignition module (7) is operated reversely unlike the other ignition modules, meaning that the contacts do not transmit electricity current when the sheet (7.1.) of the ignition module is in the pressing position.

[0013] The cam (4.6.) of the cam disc (4) ends the pressing process to the sheet (7.1.) of the lamp ignition module (7) upon the rotating process of the tap (1) from turned off position to turned on position is started and the contacts of the lamp ignition module (7) light the lamp of the furnace bottom part by means of completing the electricity circuit.

[0014] So as to provide the electric grill part of the tap (1) to be operated, the tap is rotated about 62° clockwise and the back surface (4.7.) of the cam (4.6.) of the cam disc (4) is provided to press on the sheet (5.1.) of the ignition module (5) to make electricity ignition for the grill. The angle (4.7.1.) of the back surface may be between 20° and 80°. This angle (4.7.1.) is preferably 62°. By this means the electricity current is enabled to reach to the burner and the electric grill is provided to be flamed.

[0015] Another feature of the cam disc (4) is that, there are two holes (4.8.) allowing for the adjustment of the adjustment screw (10) on the tap (1). The adjustment screw (10) on the tap is provided to be adjusted by the help of an appropriate screwdriver through these holes (4.8.).

[0016] The invention is suitable for use in all gas taps in the domestic cooking devices.

Claims

1. Cam disc (4) which is suitable for use in the gas taps (1) used in the domestic cooking devices and which enables the ignition modules to be flamed by the help of a single disc; **characterized in that** it has the cam (4.6.) allowing for the ignition module (5) going to the grill and the ignition module (7) of the lamp to be operated and two holes (4.8.) enabling the adjustment screw (10) on the tap (1) to be adjusted.
2. Cam disc (4) according to Claim 1; **characterized in that** the angle of the angled surface (4.4.) of the cam disc is between 10° and 60°.

3. Cam disc (4) according to Claim 1; **characterized in that** the angle (4.7.1.) of the back surface enabling the cam (4.6.) of the cam disc (4) to press on the sheet (5.4.1.) of the ignition module (5.4.) to make electricity ignition for the grill is between 20° and 80°.

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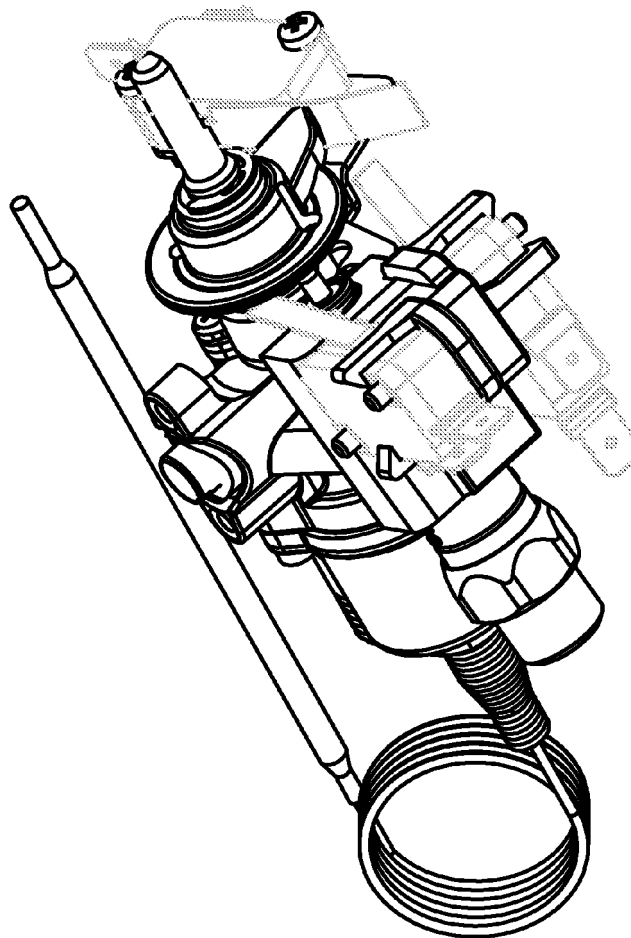


FIGURE 1

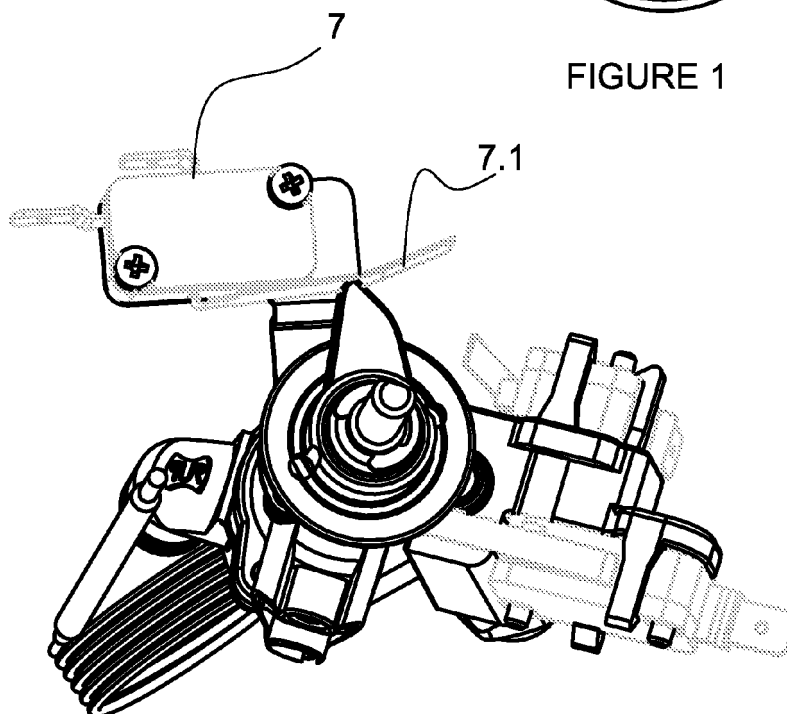


FIGURE 2

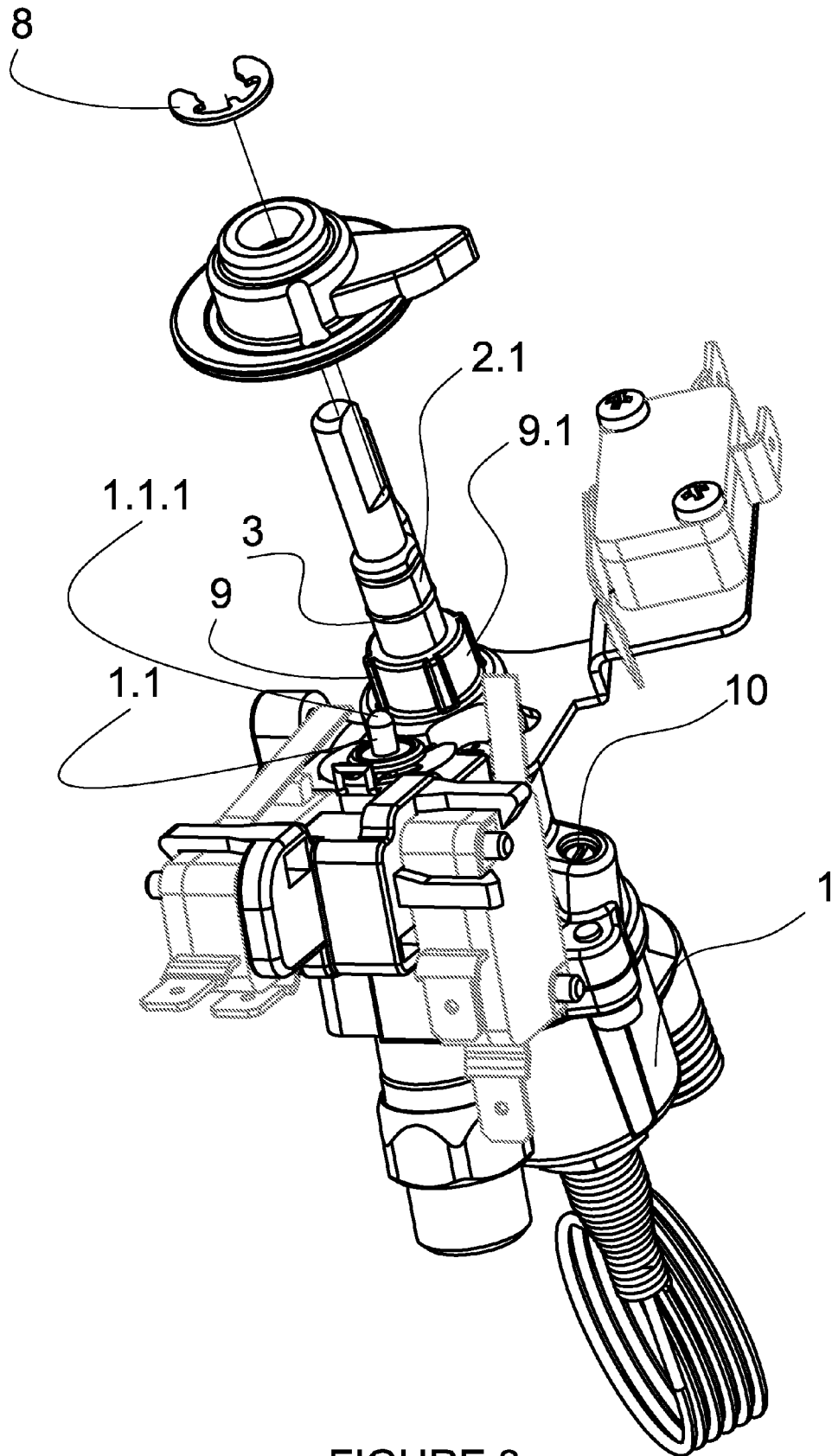
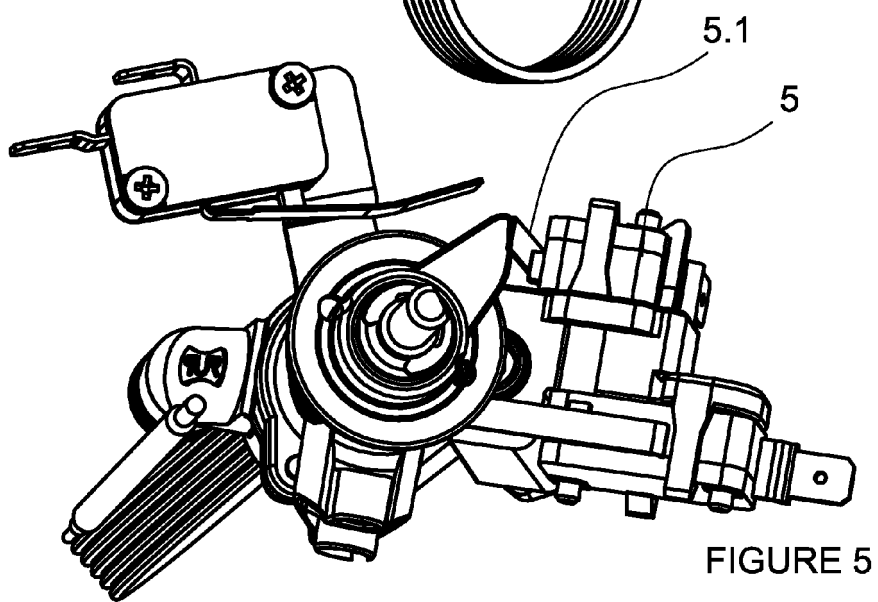
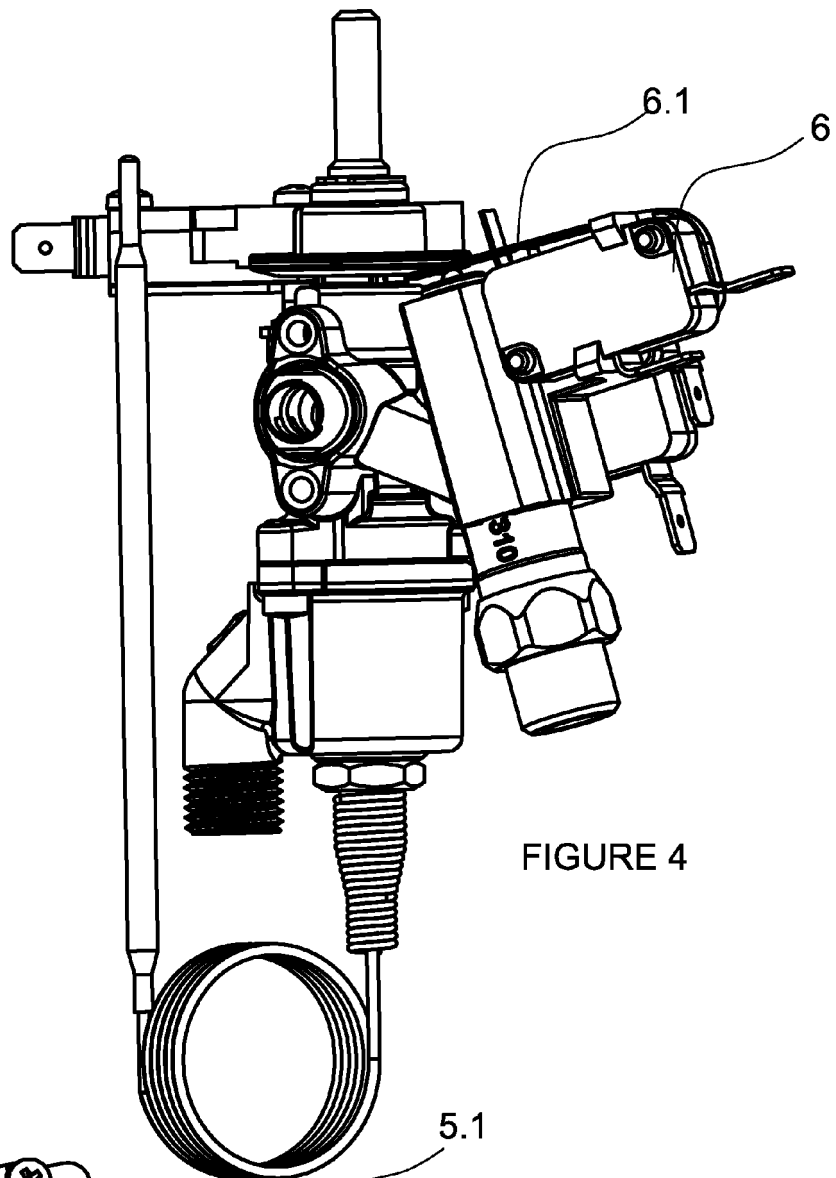


FIGURE 3



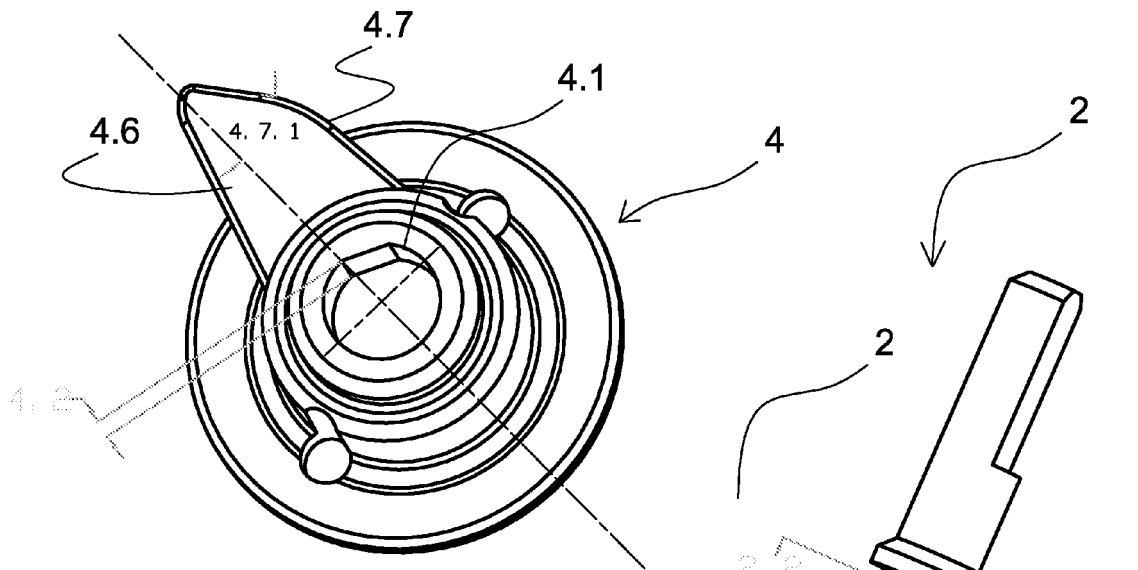


FIGURE 6

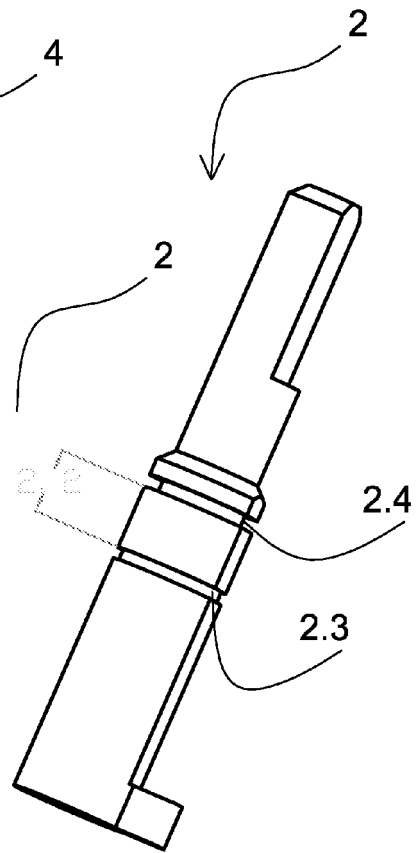


FIGURE 9

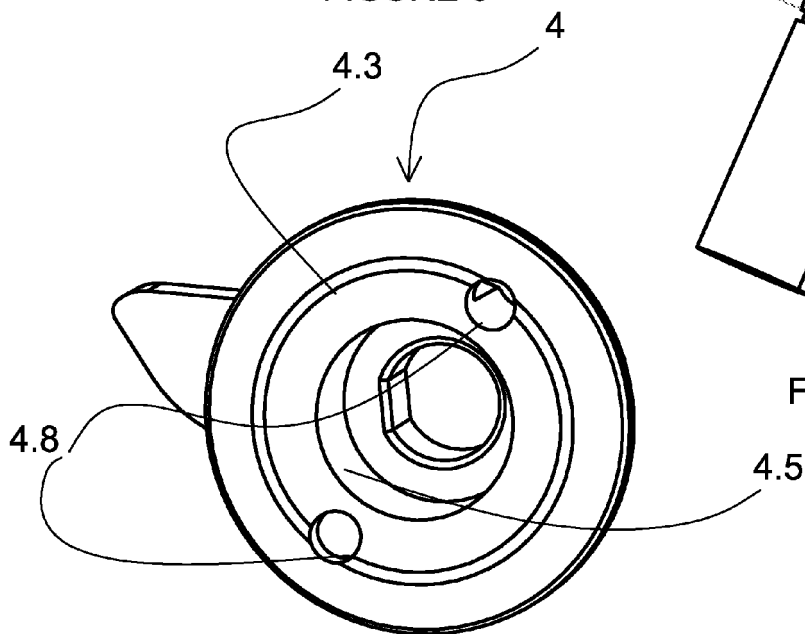


FIGURE 7

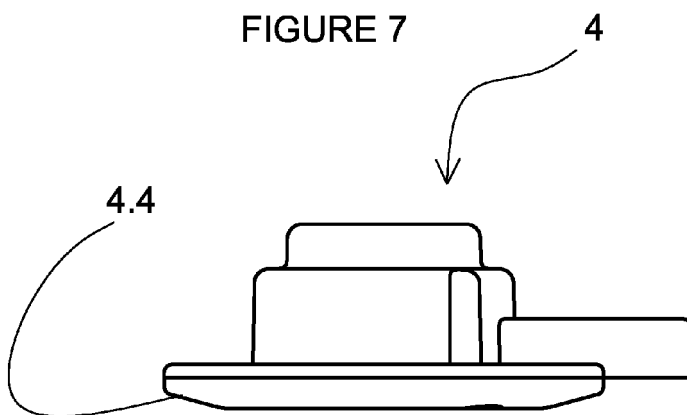


FIGURE 8