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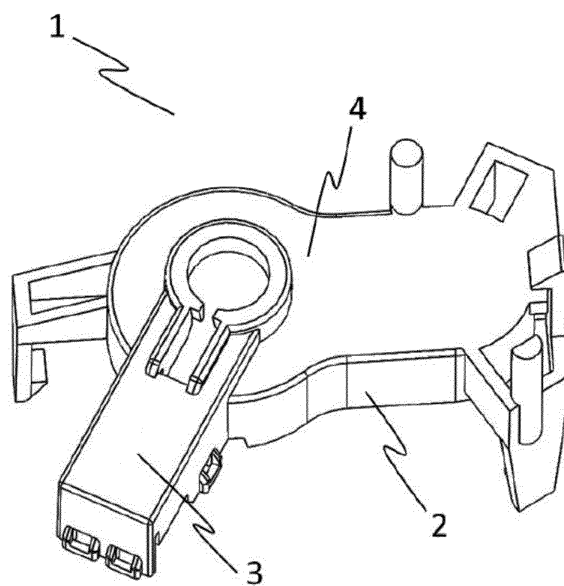
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(54) **SWITCHING APPARATUS FOR GAS COCKS**

(57) The invention is a switching apparatus (1), which enables the keys which operate devices such as lamp, ventilator, resistance to be connected to the top unit (2) on which the ignition key (3) is located in gas cocks that are used in gas cookers and heaters such as ovens, furnaces, combi boilers etc.; characterized in that it includes at least one carrying part (4) which is formed in a manner that it is formed as one part with the top unit (2), on the said top unit (2) which serves the keys that are different than the ignition key (3) to be located and which is preferably made of plastic material.



**Figure - 1**

## Description

### Technical Field

[0001] The invention relates to the gas cocks that are used in gas cookers and heaters such as ovens, furnaces, combi boilers etc.

[0002] The invention in particular relates to switching apparatuses that provide ease at mounting due to the integration of the top unit on which the ignition key, which enables the transfer of the electric energy to the igniter in gas cocks, is located and the carrying part, which enables the different key types to be connected.

### Prior Art

[0003] Today, gas flow is controlled with gas cocks in electronic or manually controlled heaters and cookers devices (household and industrial type ovens, furnaces etc.) which operate with gas fuels such as LPG and natural gas. In relatively older structures, gas is ignited in furnace by external interventions such as usage of matches or lighters whereas more recent applications include buttons that induce the burning of the gas by giving the flame to the furnace by electric energy. In some other structures that are being prevalent, ignition button is integrated to the gas cock and ignition is provided simultaneously with the turning of the gas cock, as seen in the beneficial modal document with number 2004/01415 titled 'ignition switch unit special for gas furnaces and ovens. Said gas cock is composed of mounting body to be mounted to the cock, conductive throttle, throttle carrying group, conductive arms and under carriage. Therefore it is enabled that the user may turn on the furnace using only one hand.

[0004] In the most recent applications, along with the ignition keys that are integrated to the cock that enables the electric energy to the ignition unit used for burning the gas; keys that operate devices such as lamp, ventilator, resistance etc. are used. This way, keys performing different tasks are kept together, generally by carrying parts made of plastic. Mounting manner that comes along with the carrying parts is a time consuming method because ignition key and the other type of keys and the carrying part are produced separately and integrated subsequently.

[0005] As a consequence, the presence of the need for switching apparatuses that provide ease at mounting due to the integration of the top unit on which the ignition key, which enables the transfer of the electric energy to the igniter in gas cocks, is located and the supporting part, which enables the different key types to be connected and the insufficiency of the current solutions require an improvement in the technical field.

### Aim of the invention

[0006] Present invention, relates to the switching ap-

paratus that which fulfills the abovementioned needs, eliminates all existing disadvantages and provides some additional advantages.

[0007] The main purpose of the switching apparatus of the invention is to integrate the top unit on which the ignition key is located with the carrying part which enables different types key to be connected. By this manner, an ease of mounting is provided by forming a uniform structure that enables other types of keys to be contained along with the ignition keys. In addition, other parts of the key apparatus other than the cover are commonized and become producible in the same key band. Indeed, the task of integrating the key to the key band via terminals as in previous methods is eliminated.

[0008] In order to fulfill the abovementioned aims in the most general manner, Switching apparatus that provides ease at mounting due to the integration of the top unit on which the ignition key, which enables the transfer of the electric energy to the igniter in gas cocks, is located and the supporting part, which enables the different key types to be connected, is developed. The developed Switching apparatus comprises a top unit on which the ignition key is located, at least one supporting part which is formed in a manner that it is formed as one part with the top unit on the top unit and enables ignition keys that are different than the ignition keys to be located and preferably made of plastic material.

[0009] The structural and characteristic features all advantages of the invention shall be clearly understood by the figures provided below and detailed description written with references to these figures, therefore the evaluation shall be made by taking these figures and detailed description into account.

### Figures that may be helpful for the invention to be understood

[0010] In order for the structure of the present invention along with the extra elements and its advantages to be understood in the best manner, it shall be evaluated with the Figures that are explained below.

Figure - 1: It depicts the general view of the switching apparatus of the invention.

Figure - 2: It depicts the complete perspective view of the switching apparatus of the invention with the gas cock.

Figure - 3: It depicts the complete perspective view of the switching apparatus of the invention with the gas cock from a different angle.

### Explanation of the Part References

[0011]

- 1 Switching apparatus
- 2 Top unit
- 3 Ignition key

- 4 Carrying part
- 5 Different type of key
- 6 Gas cock
- 7 Locking lug
- 8 Cock locking lug 5

### Detailed Description of the invention

**[0012]** The general view of the switching apparatus (1) that is developed to enable the keys that operates devices such as lamp, ventilator, resistance etc. to be located onto the top unit (2) on which the ignition key (3) is located in gas cocks used in gas cookers and heaters such as ovens, furnaces, combi boilers etc. is as seen in Figure 1. The supporting part (4) that is formed in the manner to form uniform part with the top unit (2) on the said top unit (2), enables the keys that are different than the ignition key (3) to be located. 10  
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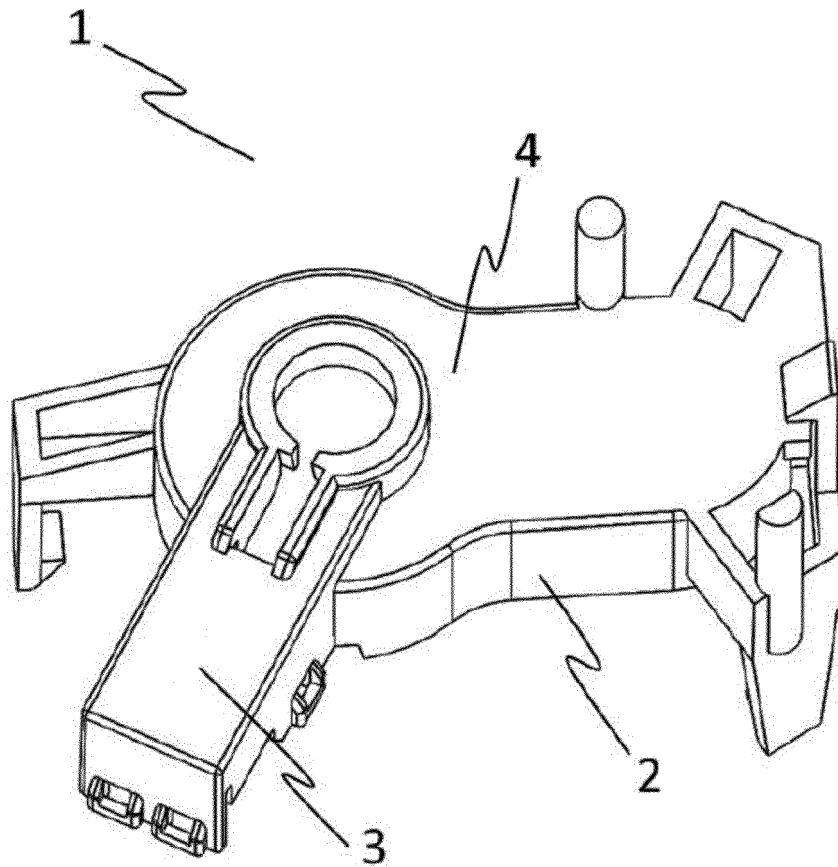
**[0013]** In the preferred structure, the carrying part (4) that is made of plastic material, is an element which keeps different types of keys together. The fact that the switching apparatus (1) is connected this way to the gas cock enables the simultaneous mounting of all keys together with the ignition key (3) by only one step of process. By this way, mounting step in the production phase is eased in a great manner and an advantage of employment cost and time cost is obtained. 20  
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**[0014]** In Figure - 2 a complete perspective view is depicted with the different type of key (5) and the gas cock (6). In this view, gas cock (6) and cock locking lug (8) are depicted in a very clear manner. Again, in Figure-3 the other locking lug (7) is depicted from a different angle. 30

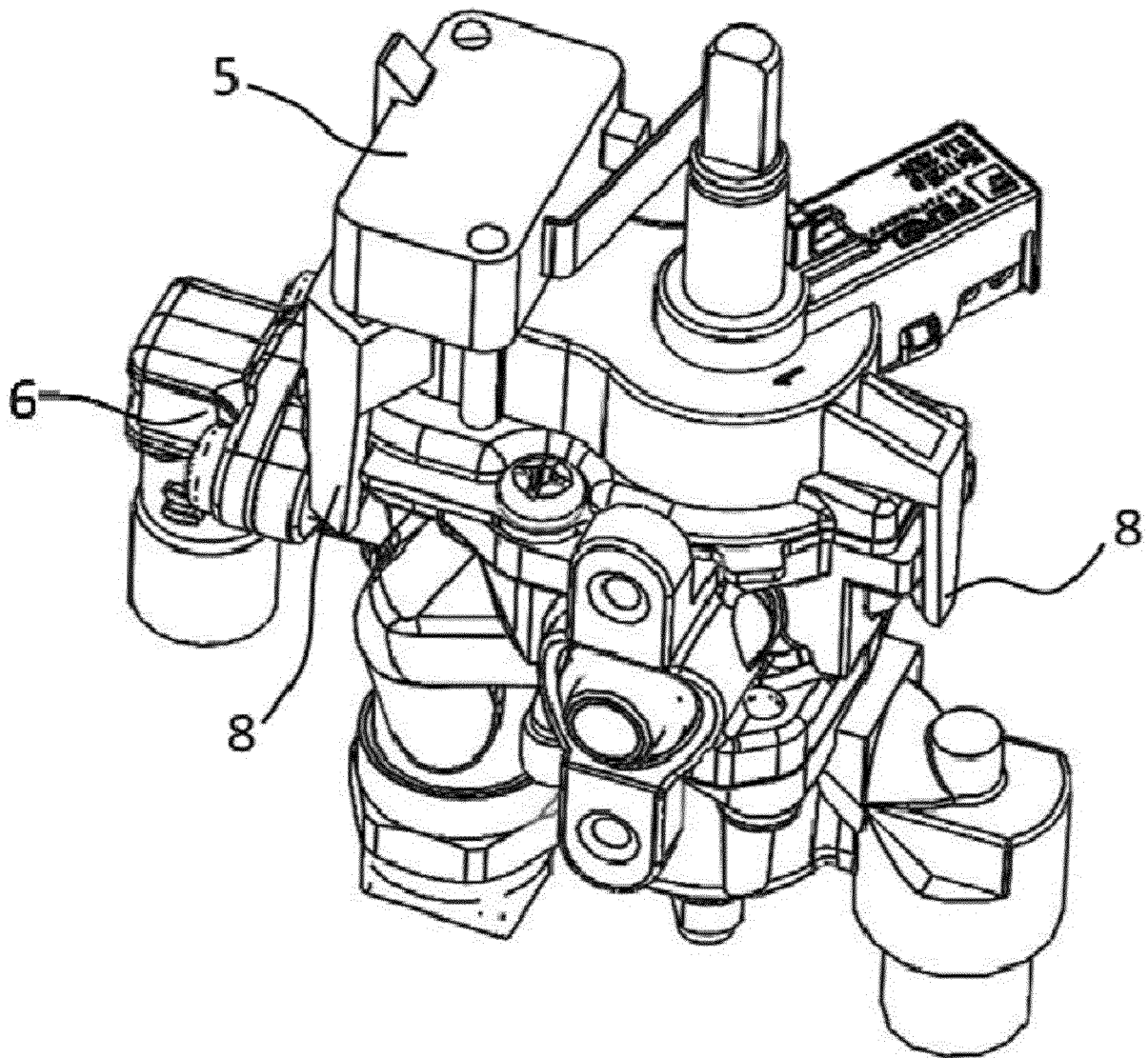
### Claims 35

1. Switching apparatus (1) which enables the keys which operate devices such as lamp, ventilator, resistance to be connected to the top unit (2) on which the ignition key (3) is located in gas cocks that are used in gas cookers and heaters such as ovens, furnaces, combi boilers etc. **characterized in that;** it comprises at least one carrying part (4) which is formed in a manner that it is formed as one part with the top unit (2) on said top unit (2) and enables ignition keys (3) to be located. 40  
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2. The switching apparatus (1) according to claim 1, **characterized in that;** it includes at least one carrying part (4) made of plastic material. 50

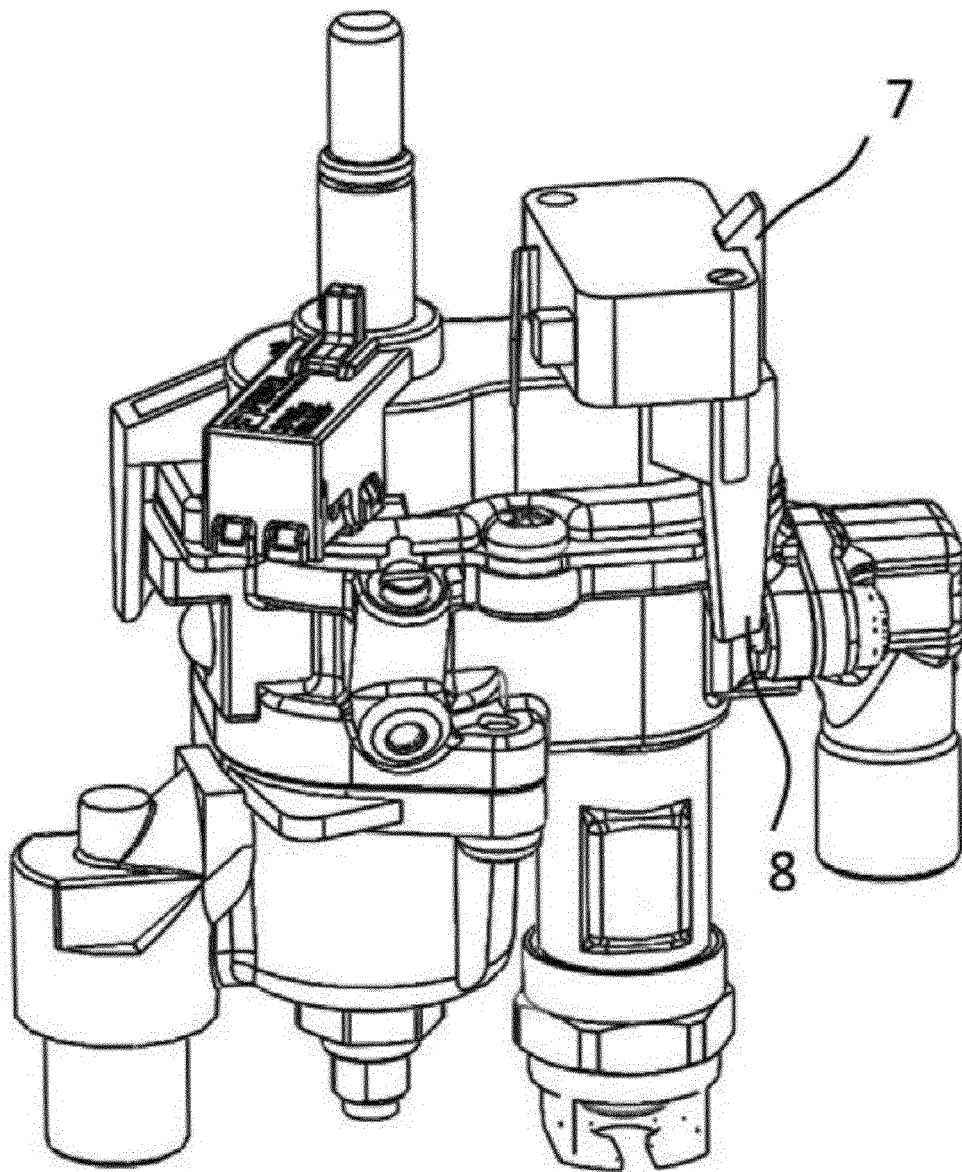
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**Figure - 1**



**Figure - 2**



**Figure - 3**



## EUROPEAN SEARCH REPORT

Application Number  
EP 17 17 9157

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	WO 2016/050271 A1 (ARCELIK AS [TR]) 7 April 2016 (2016-04-07) * figures 3a,3b,4 * * paragraphs [0027], [0032] * -----	1,2	INV. F24C3/10 F24C3/12
X	WO 2011/084729 A1 (ILLINOIS TOOL WORKS [US]; PIANEZZE DANIELE [IT]) 14 July 2011 (2011-07-14) * page 5, line 6 - page 6, line 22 * * figures 1,4,5 * -----	1,2	
A	WO 2014/102384 A1 (ARCELIK AS [TR]; USTA KADIR [TR]) 3 July 2014 (2014-07-03) * figures 1-7 * * paragraphs [0036], [0037], [0051] * -----	1,2	
A	US 2010/216080 A1 (HOME WILLIAM [TW]) 26 August 2010 (2010-08-26) * figures 1-3 * * paragraphs [0017], [0018] * -----	1,2	
			TECHNICAL FIELDS SEARCHED (IPC)
			F24C
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 27 October 2017	Examiner Moreno Rey, Marcos
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ..... & : member of the same patent family, corresponding document	

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EPO FORM 1503 03.02 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT  
ON EUROPEAN PATENT APPLICATION NO.**

EP 17 17 9157

5 This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
The members are as contained in the European Patent Office EDP file on  
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27-10-2017

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