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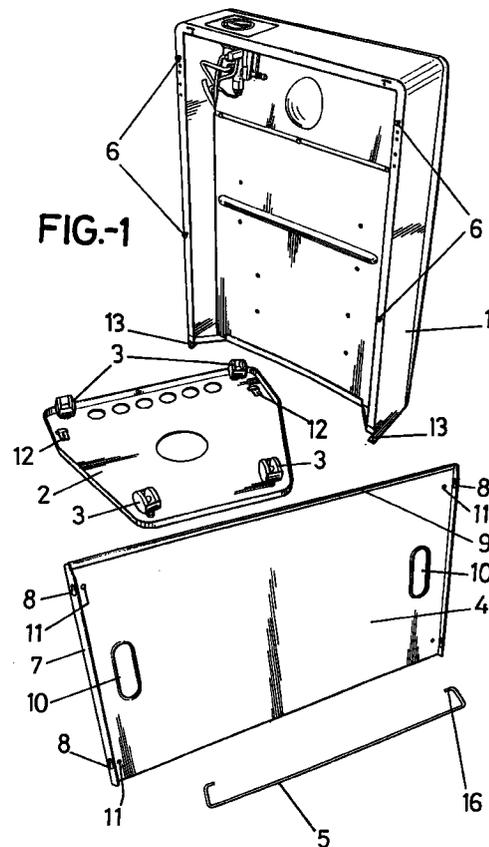
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(54) **DISMOUNTABLE STOVE**

(57) The stove is comprised of a body (1), a lower carriage (2) as supporting and transporting means for the body (1), and a back cover plate (4), in such a way that said three parts or components (1, 2 and 4) can be assembled together and dismantled, forming in the assembly configuration a stove, while in their dismantled configuration said three components may be stacked and stored in a parallelepipedic box so as to occupy a minimum space. The body (1) of the stove is connected to the carriage (2) by introduction of the sides of the carriage into guides (13) provided at the bottom of the body, and the back cover plate (4) is assembled to the body (1) by introduction of spigots (6) provided on said body into eyelets (8) provided on the cover plate (4). The assembly is completed by a security tie rod (5) which is interlocked into two holes (11) provided in the cover plate (4), when the latter is in the assembled position.



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**Description****OBJECT OF THE INVENTION**

The invention relates to a dismantlable stove and in particular a stove that may of the so-called catalytic or radiant type, fitted with a butane gas cylinder.

The essential object of the invention is having devised a stove which basically comprises three parts or elements that are easily coupled to and uncoupled from each other, altogether defining a mountable/dismountable stove, the above so that it may be stored and marketed as if it were a "kit" with components taking up a minimal space inside a box or any conventional packaging.

**BACKGROUND OF THE INVENTION**

There are many known types of catalytic and radiant stoves in the market that take up a substantial amount of space because they are fitted with a butane gas cylinder, which space requirement poses a serious storage problem and drawback for both manufacturers and sellers, as well as carriers and indeed users per se, for such substantial space taken up by stoves causes manufacturers to have to have large warehouses for stocking, as do sellers, and indeed large vehicles are required during carriage to carry only a reduced number of stoves.

The user also suffers the consequences of the large size of stoves at times when the same are not in use, knowing not where to keep them.

There have been manifold attempts by manufacturers at resolving this problem, resorting to folding stoves, portable stoves, etc., but the attempts have in all cases been solely and exclusively designed to reduce the size of the stove, no thoughts having gone to the stove including a number of simple parts enabling the user to very easily mount and dismount the same.

A clear example of an attempt at resolving the problems aforesaid lies in utility model applications 163,951, 245,660, 245,661 and 245,662, the first relating to a folding gas stove comprising a stove body of little thickness with a cover that may serve as a support, with respect to which the stove body may be arranged to locate the same inclined, upright, hanging, etc., which is not a dismantlable stove. In other words, in spite of the space having been reduced, since it is not dismantlable, ideal storage and carriage is not enabled.

As for the three other utility models, which relate to the same number of catalytic stoves, they are also devised to allow the stove to be kept, for instance, hanging, or slightly inclined, or else have its structure compartmented to separate the burner, the lighting and safety elements from the actual gas cylinder, but they are at no event dismantlable stoves that may allow all of its parts to be stored in very little space when the stove is not in use.

**DESCRIPTION OF THE INVENTION**

The stove subject hereof has been precisely devised to fully resolve this problem and therefore the stove, which is of the catalytic or radiant kind, i.e. fitted with a butane gas cylinder, is particular in that its three essential constituent parts, namely the stove body, the rear cover and the wheeled carriage supporting the stove per se, are very simply mountable and dismantlable, thereby for said three parts to lie adjacent to each other when the stove is not in use, taking up very little space which enables them to be housed in a box thereby to be kept anywhere, comfortably carried and indeed taken by the actual purchaser whenever the purchaser buys the same in a shop, without the seller having to carry the stove to the purchaser's address, as was conventionally the case.

In particular, the stove of the invention consists of a stove body with its essential parts, being generally prismatic and rectangular in shape, as is conventional, the rear surface of which has pairs of spigots in which the relevant cover is fixable, said cover consisting of a laminar body with a fold on its lateral edges defining wings provided with buttonholes in which said pins are housed, thereby enabling said cover to be quickly and simply mounted and dismantled, the cover being complete with the usual seal, as is conventional, the stove body also including rear bottom guides to be mounted on the relevant carriage, the carriage carrying pairs of wheels for the stove to be moved and having a section on the sides in order to enable such coupling by sliding through the lateral bottom guides provided on the stove body, the above such that said three essential parts or bodies of the stove are very easily mountable and dismantlable, as aforesaid, to enable their arrangement adjacent to each other upon being dismantled and inserted in a box, taking up a minimal space, being easy to carry even by the actual purchaser when the stove is purchased in a shop, carriage of the stove being also convenient for the manufacturing and selling enterprises as such.

The stove is altogether complete with a safety stay consisting of a rod folded at its ends to be anchored in holes purposely made on the cover proper, defining a safety stay, as aforesaid.

In conclusion, the most significant advantages of the stove subject of the invention are as follows:

- A lower cost in both stove making and stove packaging raw materials.
- Less space is taken up in warehouses of both the manufacturer and suppliers, retail shops, etc.
- Lower carriage cost, for less space is taken up and hence the same carriage vehicle can take more stoves than conventional stoves.

- Since less space is taken up, carriage by the purchaser is easier, for in most cases the seller has to have the stove carried for the purchaser to wherever the latter demands, whereas with the stove of the invention, and because it is dismantlable, it is easier for the actual purchaser to take it upon being purchased.
- Less space of the user per se is taken up, for the user may store it off-season taking up less space, and it could be said that when dismantled and stacked, the stove takes up roughly one-third of the space it takes up when in use, i.e. fully mounted and with the gas cylinder fitted thereon, which is what a conventional stove usually takes up.

### DESCRIPTION OF THE DRAWINGS

In order to provide a fuller description and contribute to the complete understanding of the characteristics of this invention, a set of drawings is attached to the specification which, while purely illustrative and not fully comprehensive, shows the following:

Figure 1.- Is a general perspective exploded representation of the stove subject of the invention.

Figure 2.- Is a top plan view of the mounted stove.

Figure 3.- Is a side view of the dismantled stove, with the parts stacked in what could be considered to be a container or box, the latter shown in phantom.

### PREFERRED EMBODIMENT OF THE INVENTION

With reference to the foregoing figures, the stove of the invention essentially comprises the association of three essential parts or elements, one of them a body (1) comprising the stove as such, a second element or body defining a carriage (2) fitted with appropriate wheels (3) and which will define the means supporting the body (1), and moreover the means enabling the stove to be moved about on the ground, moreover including a third essential body or element (4) comprising the rear cover of the stove, the three essential parts or elements (1), (2) and (4) being complete with a rod (5) whose function will be described hereinafter.

The stove body (1), which may be of any of the types available in the market, has pairs of spigots (6) on its rear and at its vertical edges, whereas the cover (4) that is precisely to be mounted on the rear of such body (1), is a rectangular sheet with respective folds on its side edges defining wings (7), each of which shall have two buttonholes (8) in which, upon said cover (4) being mounted on the rear of the stove body (1), the pairs of spigots (6) precisely provided on such rear of the body (1) are to be housed, and therefore the laminar cover

(4), which is flexible, shall, upon being mounted, have the shape and position shown in figure 2, allowing the relevant gas cylinder to be located between it and the stove body (1).

The top edge of the cover (4) includes a seal (9), whereas close to its sides there are openings (10) that define relevant handles. Furthermore, the cover (4) has respective holes (11) close to the corners, the function of which will also be explained hereinafter.

The part (2) or lower supporting carriage, is a platform with wheels (3) as aforesaid, and angular salients (12), thereby for the side edges on the front of said carriage (12) to be housed in corresponding guides (13) formed to such end on the bottom and at the sides proper of the stove body (1), which allows a simple and easy mounting and dismantling of said carriage (2) or in other words of the stove body (1) relative to the carriage (2), for it is sufficient to move one with respect to the other and have the latter housed in the guides (13), or else taken out of such guides, thereby for the salients (12) on the carriage (2) to be held upon assembly in windows provided to such end at the bottom of the stove body (1), and a slight manual pressure suffices to release such attachment and proceed to dismantle the body (2) and the body (1).

As set out hereinbefore, the stove is altogether complete with a safety rod or stay (5) with its ends folded to define sectors (16) which, as shown in the figures, will be housed in holes (11) on the door (4) when the latter is mounted, assisting in holding such anchorage or assembly of the door (4) relative to the stove body (1).

As shown in figure 3, when said parts or elements making up the stove are dismantled, said parts or components may be stacked and housed in a container or receptacle, such as a box (17) shown in phantom in figure 3, thereby taking up a minimal space and enabling their easy and comfortable carriage and a consumer to be able to purchase the stove in a retail shop and take it without any difficulty whatsoever, instead of waiting for the shop to deliver it as is conventional, and moreover for such user to be able to store it when not in use in the same box, taking up a minimal space and posing no inconvenience or bother whatsoever inside a house.

### Claims

1. A dismantlable stove, being of the catalytic or radiant type that is fitted with a butane gas cylinder, characterised by comprising three essential components that are mountable to and dismantlable from each other, one such component defining the stove body (1), whereas a second component consists of a rear protective cover (4) for the relevant gas cylinder, the third component comprising a carriage (2) for supporting and mounting the stove body (1), being particular in that the rear of the body (1) is provided on its sides with spigots (6) that are

to be housed in buttonholes (8) purposely provided in side wings of the cover as such (4), whereas the bottom of said stove body (1) is provided with guides (13) for mounting/dismounting by sliding the carriage (2) thereon, the latter having the relevant wheels (3) and salients (12) to be locked in windows which are purposely provided on the bottom of such stove body (1), allowing said two components to be stably linked.

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2. A dismountable stove, as in claim 1, characterised in that the rear door (4) has two holes (11) close to its corners, two of which lie on the same horizontal plane and are provided to house elbowed ends (16) of a rod (5) that defines a safety stay when the actual door (4) is mounted on the rear of the stove body (1).

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3. A dismountable stove, as in preceding claims, characterised in that the stove body (1), the door (4), the carriage (2) and the rod (5) proper are, upon being dismantled, arranged overlying each other to form a stack that may be housed inside a box (17) for storage and carriage.

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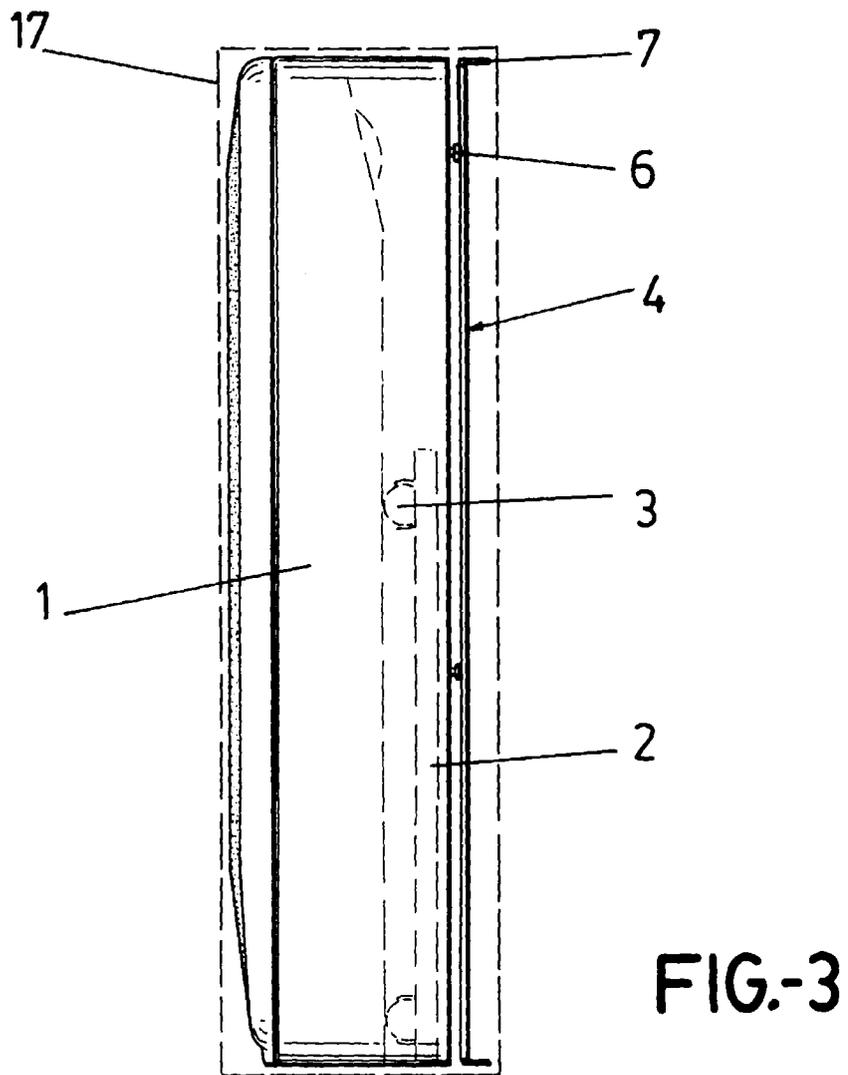
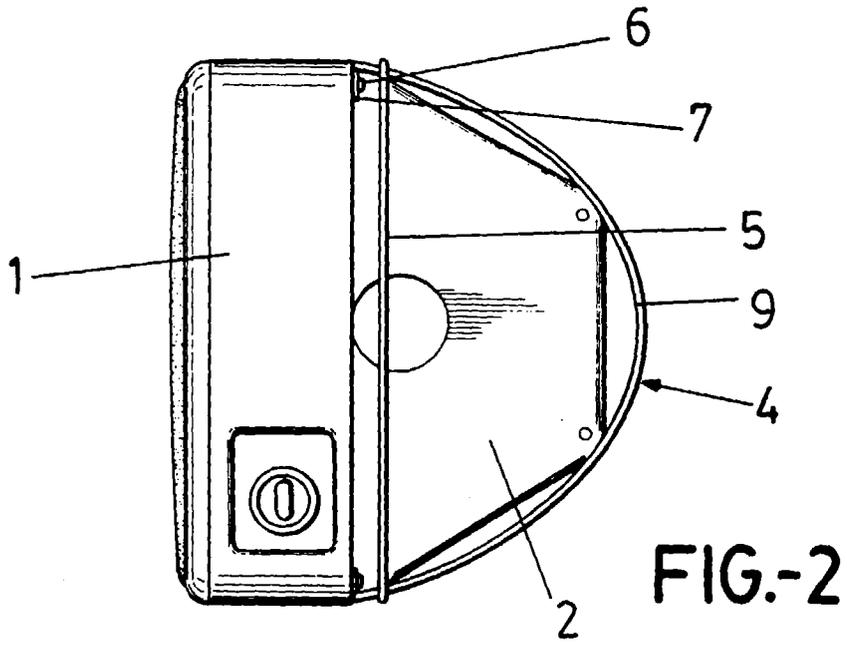
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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00198

A. CLASSIFICATION OF SUBJECT MATTER		
<b>IPC<sup>6</sup> : F24C15/08, F24C3/14</b> According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
<b>IPC<sup>6</sup> : F24C</b>		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)		
<b>CIBEPAT, EPODOC, WPI, PAJ</b>		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	FR 2 476 803 - A (A.D.P.), 28 August 1981 (28.08.81) see the whole document ---	1 2
P,A	EP 0 702 197 - A (BS ELECTRODOMESTICOS SA), 20 March 1996 (20.03.96), see abstract; claims 1, 5, 14; figures ---	1
A	FR 1 412 499 - A (USINES ET FONDERIES ARTHUR MARTIN), 24 December 1965 (24.12.65) see the whole document ---	1-3
A	FR 1 090 121 - A (FAURE), 28 March 1955 (28.03.55) see the whole document -/--	2
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> See patent family annex.		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family		
Date of the actual completion of the international search	Date of mailing of the international search report	
13 January 1997 (13.01.97)	15 January 1997 (15.01.97)	
Name and mailing address of the ISA/ S.P.T.O.	Authorized officer	
Facsimile No.	Telephone No.	

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/ES 96/00198

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	ES 197 856 - U (METALICAS DE PAMPLONA), 1 May 1975 (01.05.75), see page 6, line 5 - line 18; figures ---	1
A	ES 331 977 - A (FUNDICIONES Y ESPECIALIDADES METALURGICAS), 16 July 1967 (16.07.67) see the whole document  -----	1,3