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(54) **Telescopic rail system**

(57) The inventive telescopic rail system for the ovens comprises a pair of fixed rails (1) which are reciprocally fitted on the side walls inside the oven, a pair of movable rails (2) on these rails (1) which can move towards the inside and the outside of the oven and parallel to each other and a mounting wire (3) which connects the movable rails (2) to each other and allows them to

move together. The mounting wire (3) has an integral structure and its side portions (6) are fitted on the catches (5) located on the surfaces of the movable rails (2) facing each other as tight engagement by pressing them from top to bottom. On the front portion of the mounting wire (3), there is provided a holder (7) which is created through bending it downwards.

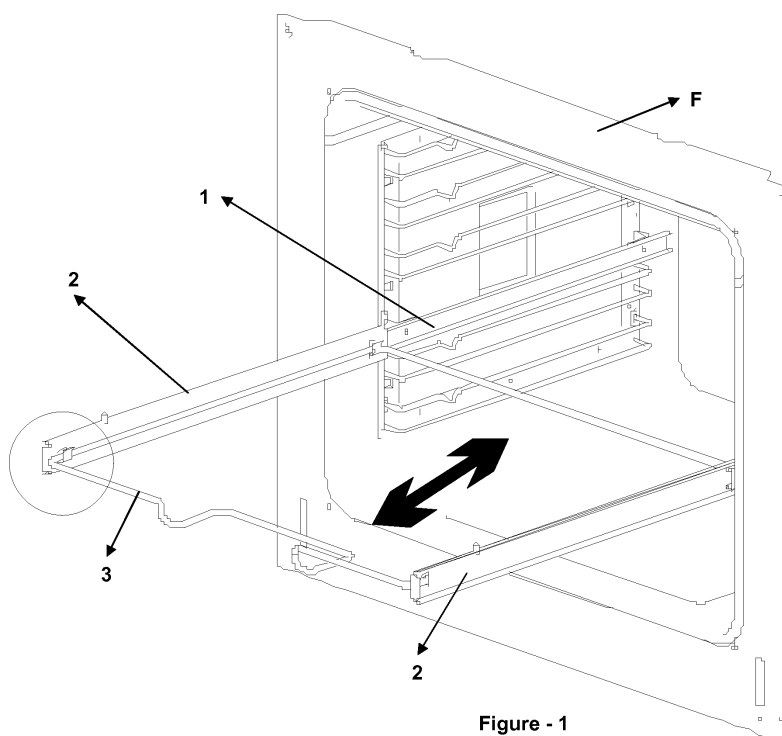


Figure - 1

Description

Technical Field

[0001] This invention is related to telescopic rail systems which are contained in cooking devices such as oven and developed for the back movement of the oven trays.

Prior Art

[0002] In the state of the art, telescopic rail systems are widely used, which are intended for the trays used in cooking devices such as oven. These rail systems are used to pull the trays longitudinally outside the oven. In cases where there are especially fluid foods in the trays, these trays are required to be pushed into or pulled outside from the oven without tilting them on said telescopic rail system. The published patent applications W02004025186 and W02004005820 can be exemplified for one of the systems developed to achieve that. The telescopic rail systems disclosed in these documents are costly to produce due to their complicated geometry. It is also not easy to disassemble these parts for cleaning purposes and then reassemble them.

Brief Disclosure of the Invention

[0003] The inventive telescopic rail system has a structure developed to resolve the above-mentioned problems. This rail system could be easily applied inside the ovens of very different types. The system comprises a pair of telescopic rails which are mounted on the side walls of the oven, at least one mounting wire which is fitted as catch engagement on the surfaces of the movable rails facing each other and onto which the tray is positioned, and an oven tray. The mounting wire is fitted on the catches of said movable rails through pressing it from top to bottom and can be easily removed from its place with a reverse directional movement. The mounting wire allows a pair of movable rails on the side walls to move together by combining them and also ensures the tray placed on it to be properly positioned. This generated structure ensures that telescopic rails are more robust and there are no problems on the portion removed outside the oven such as bending down.

[0004] Besides, the simplicity of the system provides production and mounting easiness. Since standard connection elements are not used for the assembly, it saves time both during production and use in terms of disassembly and assembly operations. As is known, multiple trays and rail systems for these trays are used in ovens. For instance, the height of a cooking utensil which is placed on a bottom tray sometimes does not allow other trays to be placed inside the oven. This circumstance requires the tray and the mounting wire that the tray rests on and that combines the movable rails, to be removed. The easiness of these disassembly and assembly oper-

ations in the inventive system provides easiness for user under these said circumstances.

Aims of the Invention

[0005] An aim of the invention is to form an easy to disassemble and assemble telescopic rail system for the oven trays.

[0006] Another aim of the invention is to ensure that a pair of movable rails on the side walls inside the oven are combined and made to move together by way of a mounting wire and the tray placed on the mounting wire is properly positioned.

Description of the Drawings

[0007] The inventive exemplary telescopic rail system is shown in the drawings, wherein:

Fig. 1 is a general perspective view of the telescopic rail system.

Fig. 2 is a perspective view of the combination detail of the mounting wire and the movable rail.

Fig. 3 is a perspective view of the movable rail.

Fig. 4 is a side view of the movable rail.

Fig. 5 is a perspective view of the mounting wire.

Fig. 6 is a general perspective view of the telescopic rail system.

[0008] The parts in the figures are numbered one by one and the corresponding terms of these numbers are given below.

Fixed rail (1)
Movable rail (2)
Mounting wire (3)
Oven tray (4)
Catch (5)
Side portions (6)
Handle (7)
Oven (F)

Disclosure of the Invention

[0009] The inventive telescopic rail system for the ovens of which general view is provided in Figs. 1 and 6 comprises a pair of fixed rails (1) which are reciprocally fitted on the side walls inside the oven (F), a pair of movable rails (2) on these rails (1) which can move towards the inside and the outside of the oven (F) and parallel to each other and a mounting wire (3) which connects the movable rails (2) to each other and allows them to move together. The mounting wire (3) has an integral structure and its side portions are fitted on the catches (5) located on the surfaces of the movable rails (2) facing each other. Fig. 2 provides a detailed view of this connection.

[0010] The catches (5) on the movable rail (2) which is shown in figs. 3 and 4 are integrated with the rail (2)

and their top portion has an open structure so as to allow mounting from above. The side portions (6) of said mounting wire (3) are fitted on the catches (5) of the rails (2) as tight engagement by pressing them from top to bottom. In other words, the engagement space between the catches (5) and the rail (2) expands through the outward flexion of the catch (5) and grasps the wire (3) firmly while the mounting wire (3) is fitted. In this way, a pair of rails (2) and the mounting wire (3) reach a position where they can move together. It is sufficient to press the wire (5) from bottom to top in order to disassemble it, the wire (3) can be easily disengaged from the rail. Each said catch (5) is formed in such a way that all the edges but a bending edge of an area on the side surface of the rail (2) are cut and bent in a form extending outwards.

[0011] Fig. 5 provides a perspective view of the mounting wire (3). The mounting wire (3) is in the form of a frame having an integral structure. As mentioned, its side portions (6) are fitted on the catches (5) of the movable rails (2) as tight engagement. On the front portion of the wire (3), there is provided a holder (7) which is created through bending it downwards. The inward and outward movement of the movable rails (2) can be provided by grasping the holder (7) portion. Especially, in case where an oven tray filled with foods is positioned on the mounting wire, it is possible to move the tray safely without shaking it by simply grasping the holder (7) of the wire (3).

[0012] As shown in fig. 6, there is positioned an oven tray (4) on the mounting wire (3) of the rail system. In order to move the rails (2) and thus the tray (4) safely, there is seen a holder (7) bending downwards so as to be grasped easily on the front portion of the wire (3).

Claims

1. A telescopic rail system for the ovens comprising a pair of fixed rails (1) which are reciprocally fitted on the side walls inside the oven, a pair of movable rails (2) on these rails (1) which can move towards the inside and the outside of the oven and parallel to each other and a mounting wire (3) which connects the movable rails (2) to each other and allows them to move together, **characterized in that** the side portions (6) of the mounting wire (3) can be fitted on the catches (5) which are located on the surfaces of the movable rails (2) facing each other and of which top portions are open by pressing them from top to bottom.
2. A system according to the claim 1, **characterized in that** each catch (5) on the movable rail (2) is formed in such a way that all the edges but a bending edge of an area on the side surface of the rail (2) are cut and bent in a form extending outwards and their top portion has an open structure so as to allow mounting from above.

3. A system according to the claim 1, **characterized in that** said catches (5) are in a form that grasps the mounting wire (3) as tight engagement.

4. A system according to the claim 1, **characterized in that** the mounting wire (3) is in the form of a frame having an integral structure.

5. A system according to the claim 4, **characterized in that** on the front portion of the mounting wire (3), there is provided a holder (7) which is created through bending it downwards.

6. A system according to the claim 1, **characterized in that** it comprises an oven tray (4) which is positioned on the mounting wire (3).

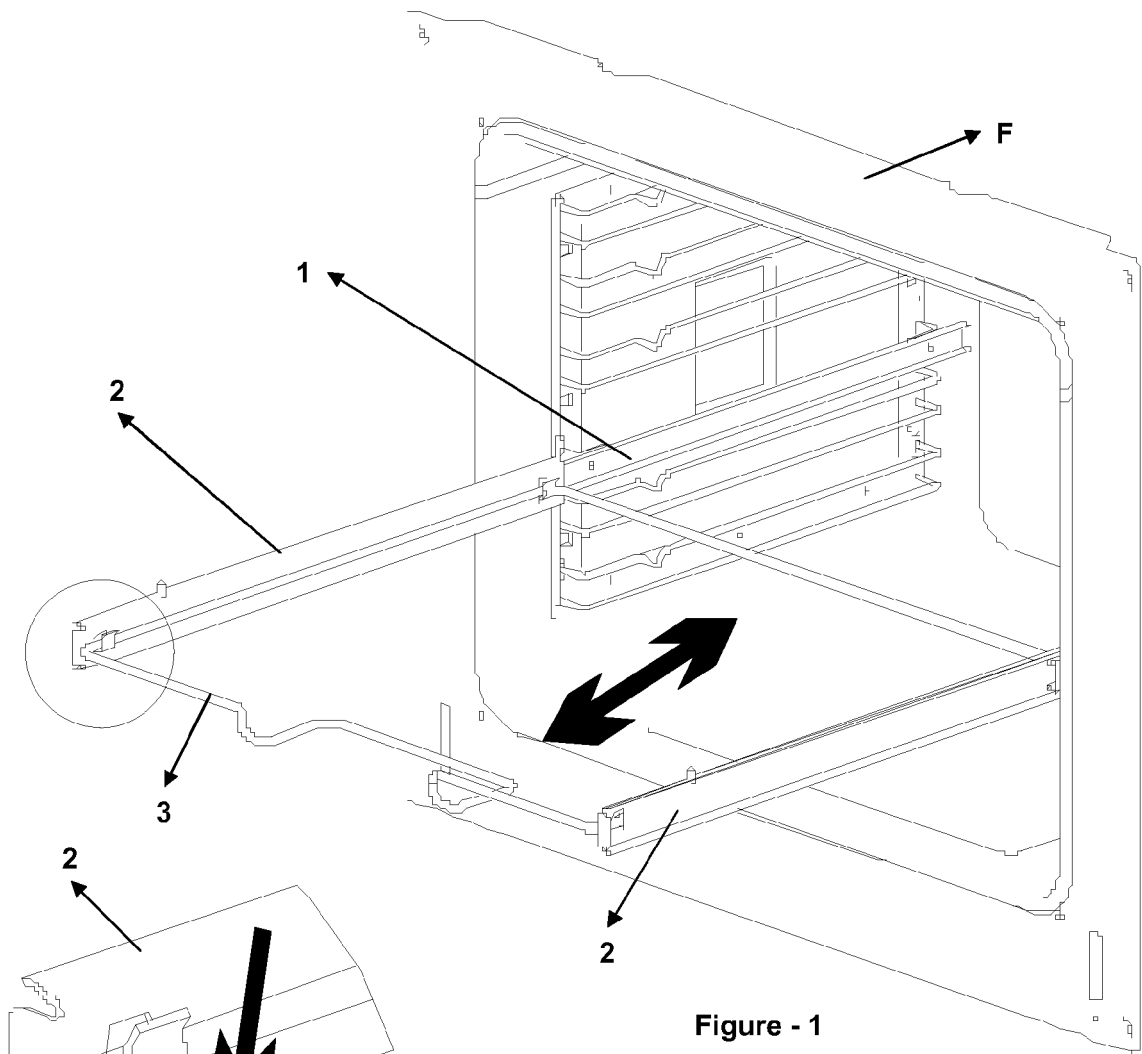


Figure - 1

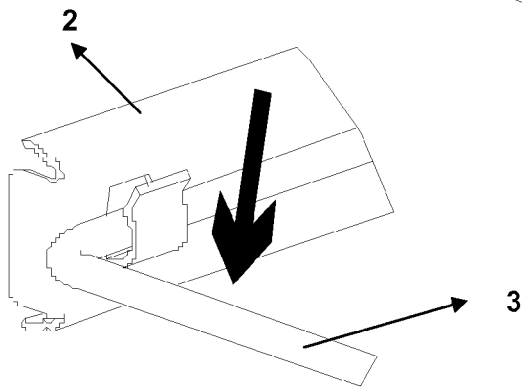


Figure - 2

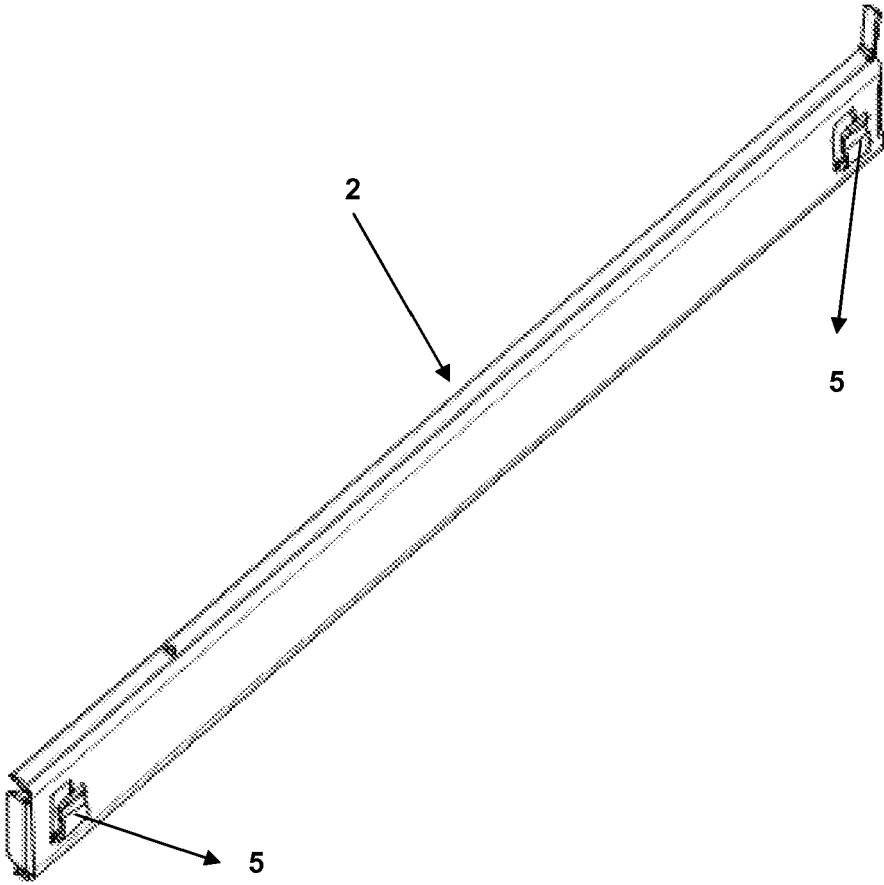


Figure - 3

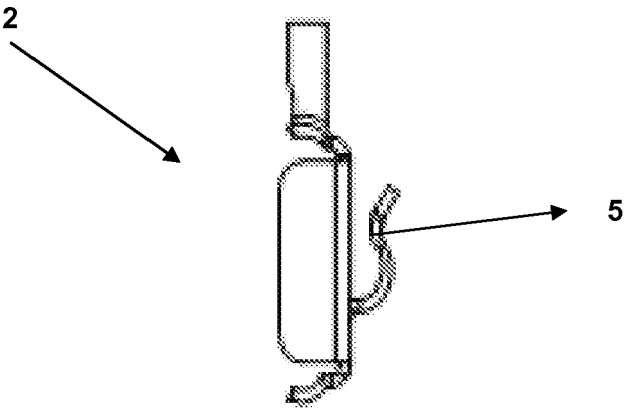


Figure - 4

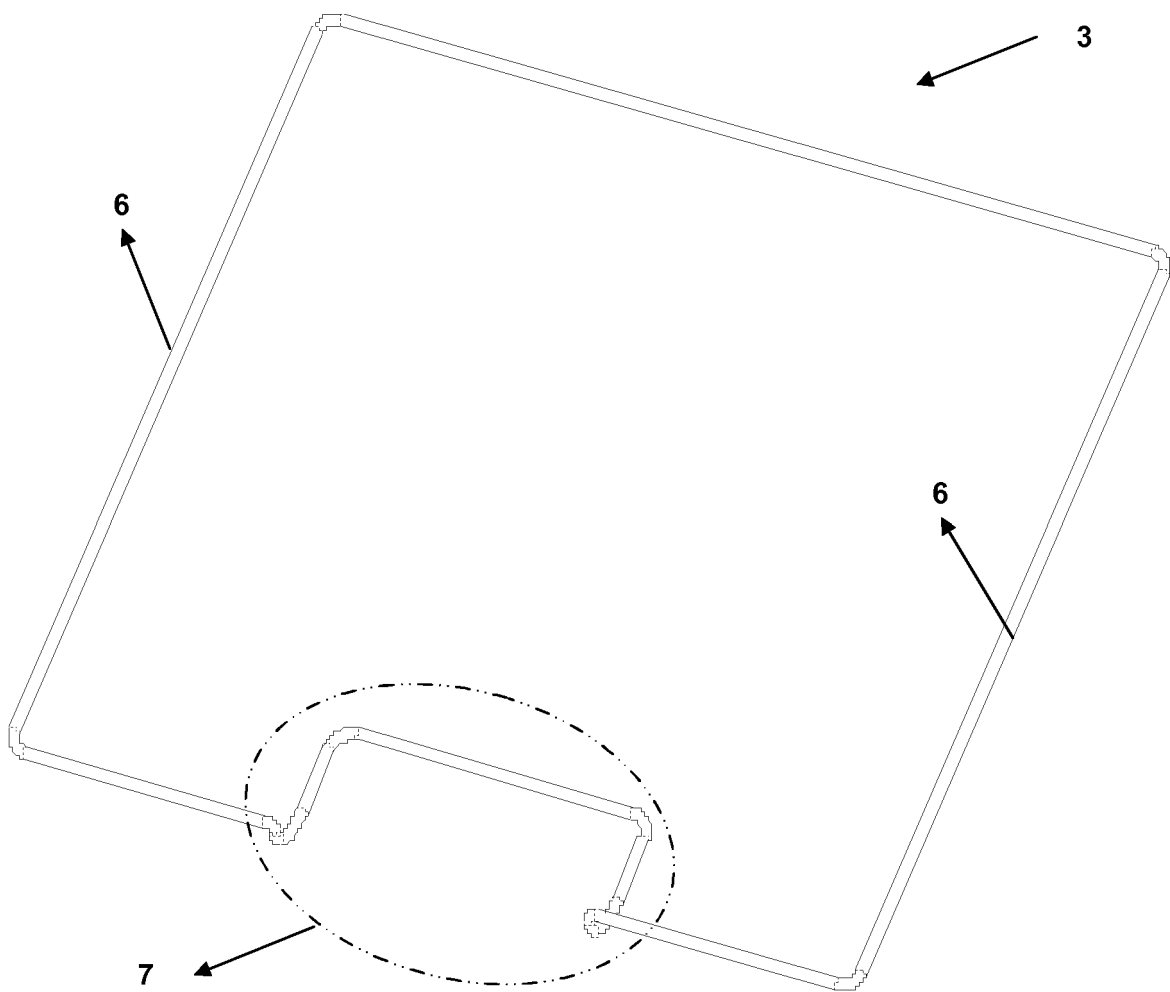


Figure - 5

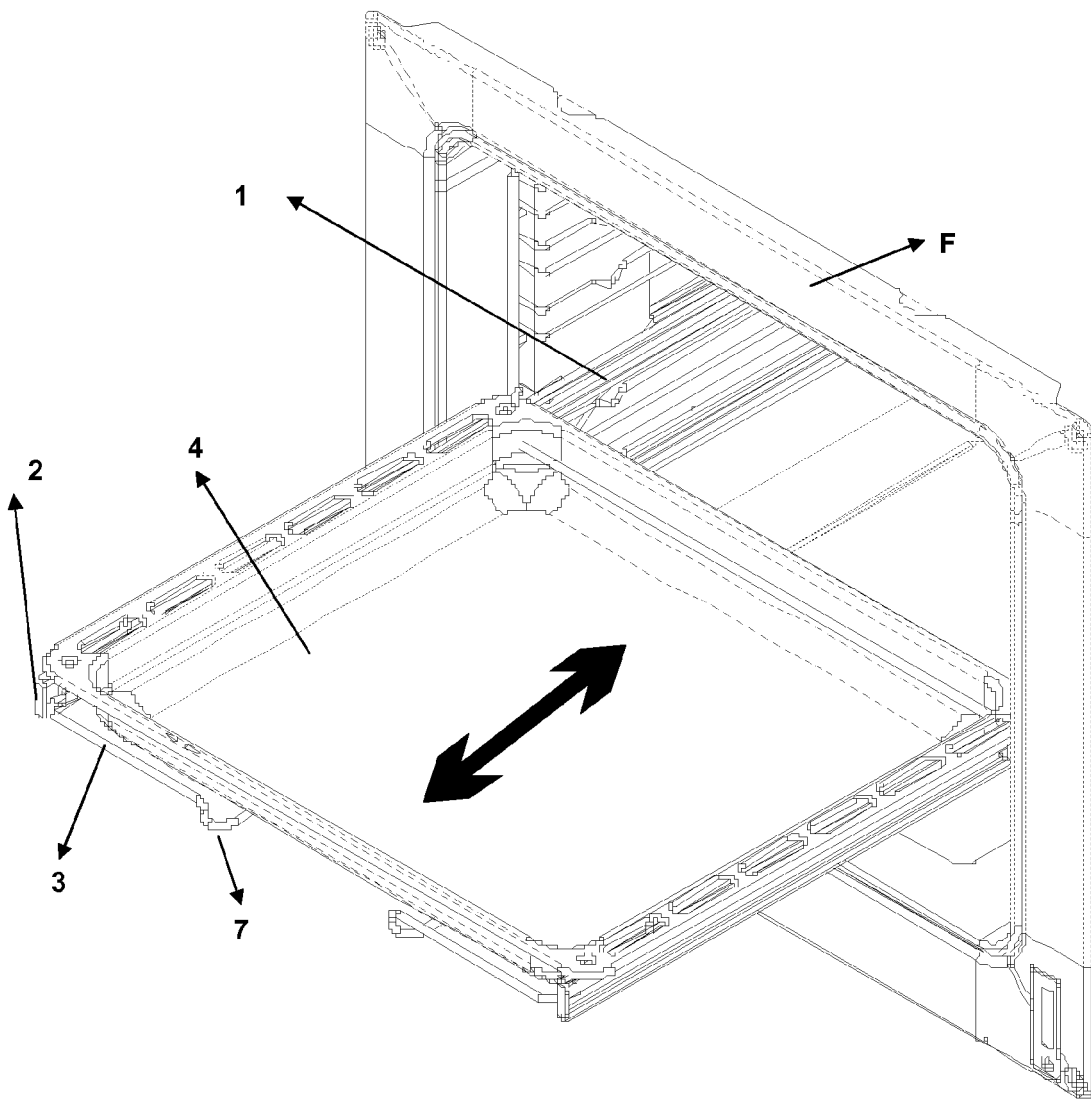


Figure - 6



EUROPEAN SEARCH REPORT

Application Number
EP 07 12 0233

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Place of search Munich		Date of completion of the search 19 December 2008	Examiner Merkt, Andreas
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 82 (P04C01)

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

EP 07 12 0233

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The members are as contained in the European Patent Office EDP file on
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