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(71) Applicant *(for all designated States except US)*: **GRUNDIG ELEKTRONIK ANONIM SIRKETI** [TR/TR]; Beylikduzu Mevkii, Buyukcekmece, 34901 Istanbul (TR).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **AYTEN, Serdar** [TR/TR]; Grundig Elektronik Anonim Sirketi, Beylikduzu Mevkii, Buyukcekmece, 34901 Istanbul (TR).

(74) Agent: **ANKARA PATENT BUREAU LIMITED**; Bestekar Sokak No.10, Kavaklidere, 06680 Ankara (TR).

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(54) **Title:** A TELEVISION

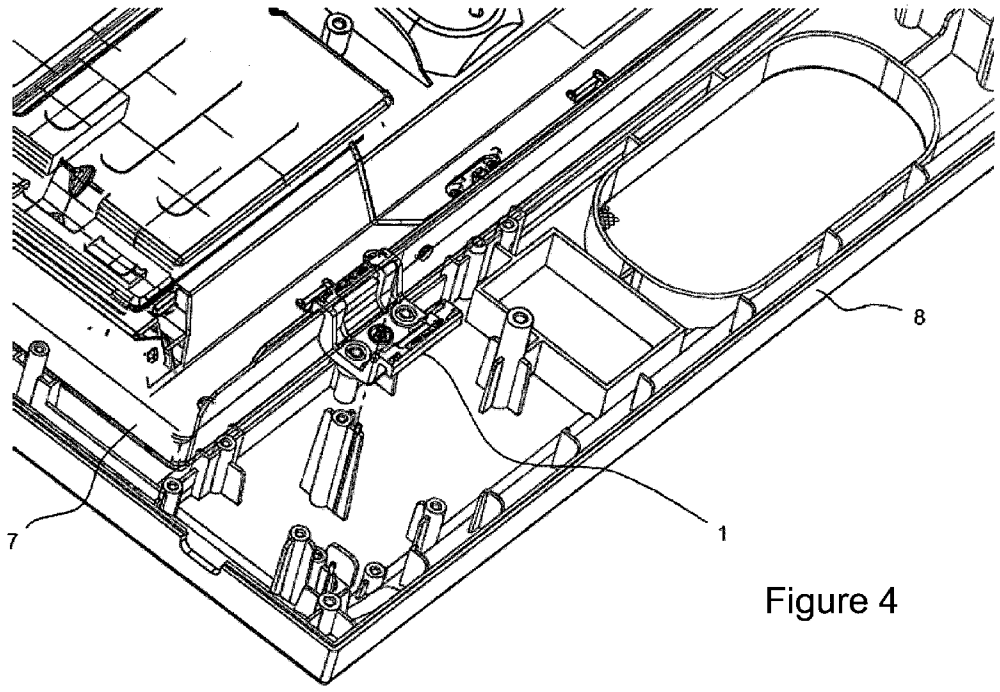


Figure 4

(57) **Abstract:** The present invention relates to a flat panel television (1 1) comprising a mounting part (1) used for attaching different heighted panels (7) onto the case (8).

WO 2008/149262 A1

A TELEVISION

Field of the Invention

The present invention relates to a flat panel television.

Prior Art

As flat panels started to be used in electronic display devices such as televisions and computers, many kinds of improvements have been made especially in television devices. One of the most important advantages brought by the flat panel televisions among which are various applications such as plasma, LCD, OLED, is the ability to produce television devices in smaller sizes. Flat panel televisions enable designs, which take up less space; and which are lighter, stronger and more elegant looking aesthetically.

In addition to the improvements achieved in display technologies, the mounting techniques employed in assembly of television components and the developments in the mounting parts have also played a role in attaining this compact form that flat panel televisions have acquired. There is provided a panel mounted on the television case also in flat panel televisions just like the tube televisions. Numerous and various mounting parts are employed for fastening of the said parts to each other. Since the panels are of different sizes, various mounting parts complying with these sizes are needed. Even if the screen width of the panels employed in televisions with flat panel technology is the same, panels of different manufacturing firms may have different heights. In most of the applications within the state of the art, a plurality of fixing members or fixing members varying according to the size of the panel are used at the mounting of panels with different sizes to the television case.

The Korean patent application No. KR20060115138, within the state of the art, discloses a fixing member which includes a unilateral clamp protrusion thereon and which enables the panel to be fixed on the case by means of the said protrusion.

The international patent application No. WO2006090543, within the state of the art, describes an attaching element for fixing panels/tubes of different sizes onto the television case. By means of the position setting section provided on this element, the connection between the panel and the case can be realized for products of different sizes and models.

The Japanese patent application No. JP2005308794, within the state of the art, discloses a holder member comprising screw holes formed at different positions and a connection element which is arranged in between the said member and the panel, and fits into the intended holes by means of the projecting parts of varying heights and screw slots thereon. Thanks to this structure, panels of different heights are mounted on fixed surfaces.

The said mounting parts belonging to the said prior art alone cannot realize mounting of the panels with different heights to the case or provide solutions which comprise several moveable parts and require adjustment in order to eliminate this disadvantage. This poses a complicated and difficult application in terms of both production of the part and the mounting process.

Summary of the Invention

The objective of the present invention is to realize a television comprising a panel mounting part that can be used for fixing different heighted flat panels to the television case.

The television realized to fulfill the objectives of the present invention and defined in the first claim and its dependent claims, reduces costs as it comprises a panel mounting part which enables mounting of different sized panels with a single piece. The shock absorbing fins provided at the panel holder sections of the mounting part absorb shocks and impacts that might come from outside, thereby help to protect the panel. Additionally the fact that the television has a structure which allows fixing the panel mounting part to the case via a single connection element mountable from outside of the cover that is on the case of the television provides ease at the assembly of the television.

Detailed Description of the Invention

The television realized to fulfill the objective of the present invention is illustrated in the accompanying figures in which,

Figure 1 is the side view of the panel mounting part.
Figure 2 is the top perspective view of the panel mounting part.
Figure 3 is the bottom perspective view of the panel mounting part.
Figure 4 is the perspective view of the panel's attachment to the case via a panel mounting part.
Figure 5 is the side view of the inventive television before the assembly, together with the panel mounting part, panel, television case and connection element.
Figure 6 is the exploded view of the inventive television.

The components shown in the figures are numbered as follows:

1. Mounting part
2. Holder
3. Fin
4. Base
5. Central hole

6. Side hole
7. Panel
8. Case
9. Connection element
10. Cover
11. Television

The inventive television (11) comprises a panel (7), a case (8) on which the panel (7) is mounted, a cover (10) mounted on the case (8) such that the panel (7) stays therebetween, and a mounting part (1) which enables fixing of the panel (7) to the case (8).

The mounting part (1) which enables attachment of the panel (7) to the case (8) is produced of a material resistant to shock and stress, and is preferably single piece. The said mounting part (1) comprises a base (4) which abuts on the surface that it will be fixed, at least two holders (2) which ascend from two opposite sides of the said base (4), have different heights with respect to the base (4) and enable attachment of the panel (7) to the case (8) by applying pressure on the edge thereof, and whose ends are curved outwards.

The mounting part (1) further comprises a fin (3) on each holder (2) created by a part of the holder (2) forming a protrusion outwards, a central hole (5) provided on the base (4) and side holes (6) located on the same plane with the central hole (5) (Figure 1, 2, 3).

The panel mounting part (1) is fixed via a connection element (9) which is mounted to the screw slot on the case (8) upon passing through the central hole (5) (Figure 4, 5). The panel mounting part (1) is disposed on the TV case (8) so as to employ one of the different heighted curved panel holders (2) which is suitable to the height of the panel (7) to be mounted, thus it is sufficient by itself for mounting of different heighted panels (7). Depending on the height of the panel

used, one of the panel holders (2) is active and the other is passive. The connection element (9) used to fix the panel mounting part (1) to the TV case (8) can also be mounted from outside of the TV back cover (10) upon passing it through the screw hole on the cover (Figure 6).

By having the central hole (5) located on the base (4) arranged so as to overlap with the screw slot provided on the TV case (8), the U shaped curved panel holder (2) with one end applying pressure on the panel (7) and the other end remaining free, loose in the air, realizes fixing of the panel (7) by engaging the edge ridge of the panel (7). The fin (3) provided on the curved panel holder (2) and whose side view forms a small protrusion, is formed so as to allow the panel's (7) edge ridge to precisely fit into the opening in the inside of the curve of the curved panel holder (2). Since the fin (3), which looks like a flat spring and has a springiness feature, has a restricted margin of movement on the axis perpendicular to the surface of the curved panel holder (2) in cases where the force applied thereon exceeds a certain value, it serves as a shock absorber for the panel (7) mounted within the case against shocks and impacts and provides protection for the panel (7) by absorbing these shocks. The central hole (5) and the side holes (6) and the ring shaped protrusions located at the bottom surface of the base around these holes (5, 6) play a role in centering the panel mounting part (1) and improving strength thereof. The side holes (6) and the ring shaped protrusions surrounding them fulfill the function of centering and improving strength by fitting into the recesses next to the slot into which fits the connection element (9) which is provided on the TV case (8) and which enables mounting upon passing through the central hole (5).

In another embodiment of the invention, number of the curved holders (2) provided on the mounting part (1) and each having a different height is more than two. Thus the mounting part (1) comprises three or four different heighted holders (2) and can alone perform fixing of three or four different heighted panels (7).

While the mounting part (1) enables fixing of different heighted panels (7) to a TV case (8) by means of two or more different heighted holder (2) projections arranged thereon, the protruding fins (3) on the lateral surface protect the panel (7) from external shocks and impacts.

Within the scope of this basic concept, it is possible to develop various embodiments of the mounting part (1) and the invention is essentially accordingly to the claims, it cannot be limited to the examples described herein.

CLAIMS

1. A television (11) **comprising** a panel (7), a case (8) on which the panel (7) is mounted, a cover (10) mounted on the case (8) such that the panel (7) stays therebetween, and a mounting part (1) which enables fixing of the panel (7) to the case (8), and **characterized by** a mounting part (1) comprising a base (4) which abuts on the surface that it will be fixed and at least two holders (2) which ascend from two opposite sides of the said base (4), have different heights with respect to the base (4) and enable attachment of the panel (7) to the case (8) by applying pressure on the edge thereof and whose ends are curved outwards.

2. A television (11) according to Claim 1, characterized by a mounting part (1) comprising at least one fin (3) which is provided on the holders (2), is created by a part of the holder (2) forming a protrusion outwards and provides protection for the panel (7) against shocks and impacts by serving as a shock absorber thanks to its springiness feature.

3. A television (11) according to Claim 1 or 2, characterized by a mounting part (1) comprising at least one side hole (6) and a central hole (5) which realizes centering of the mounting part (1) and improving strength thereof by fitting into the slot provided on the case (8) thanks to the protrusions surrounding them.

Figure 1

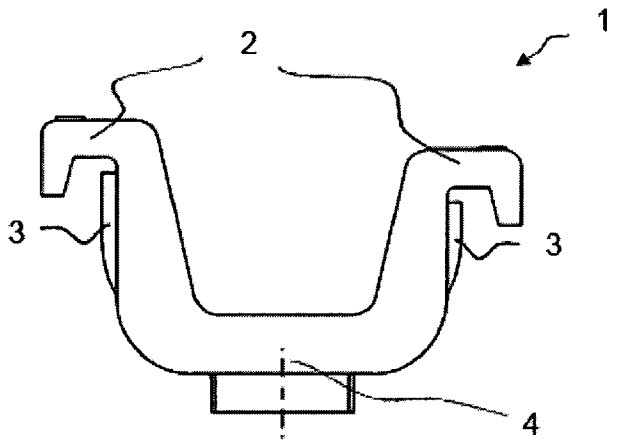


Figure 2

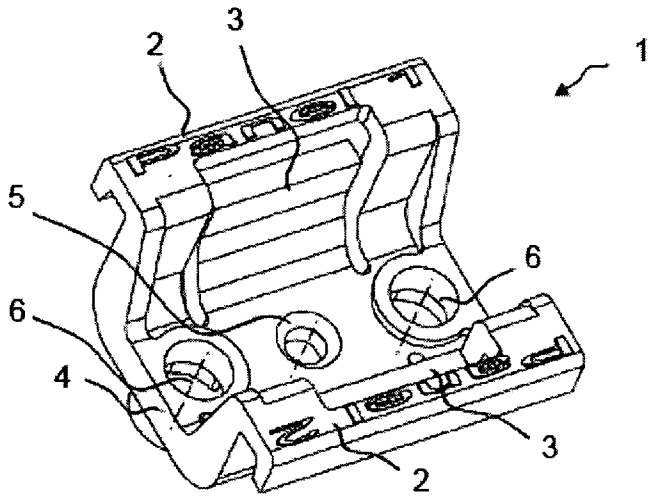
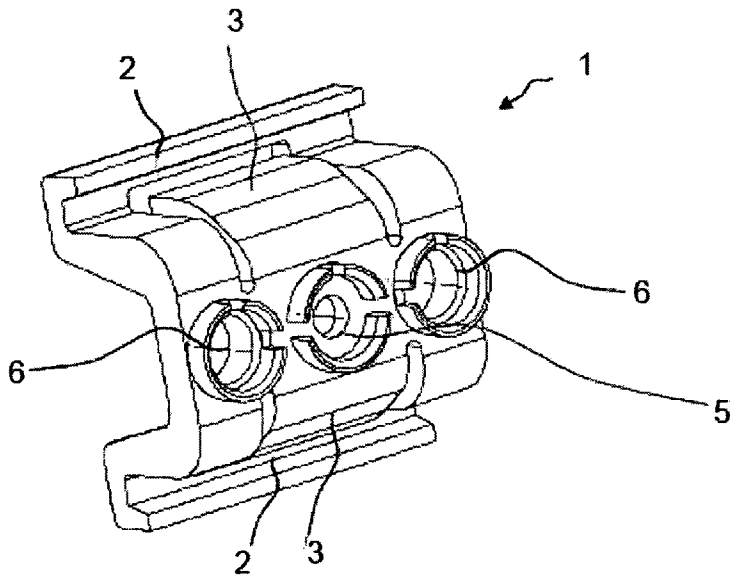


Figure 3



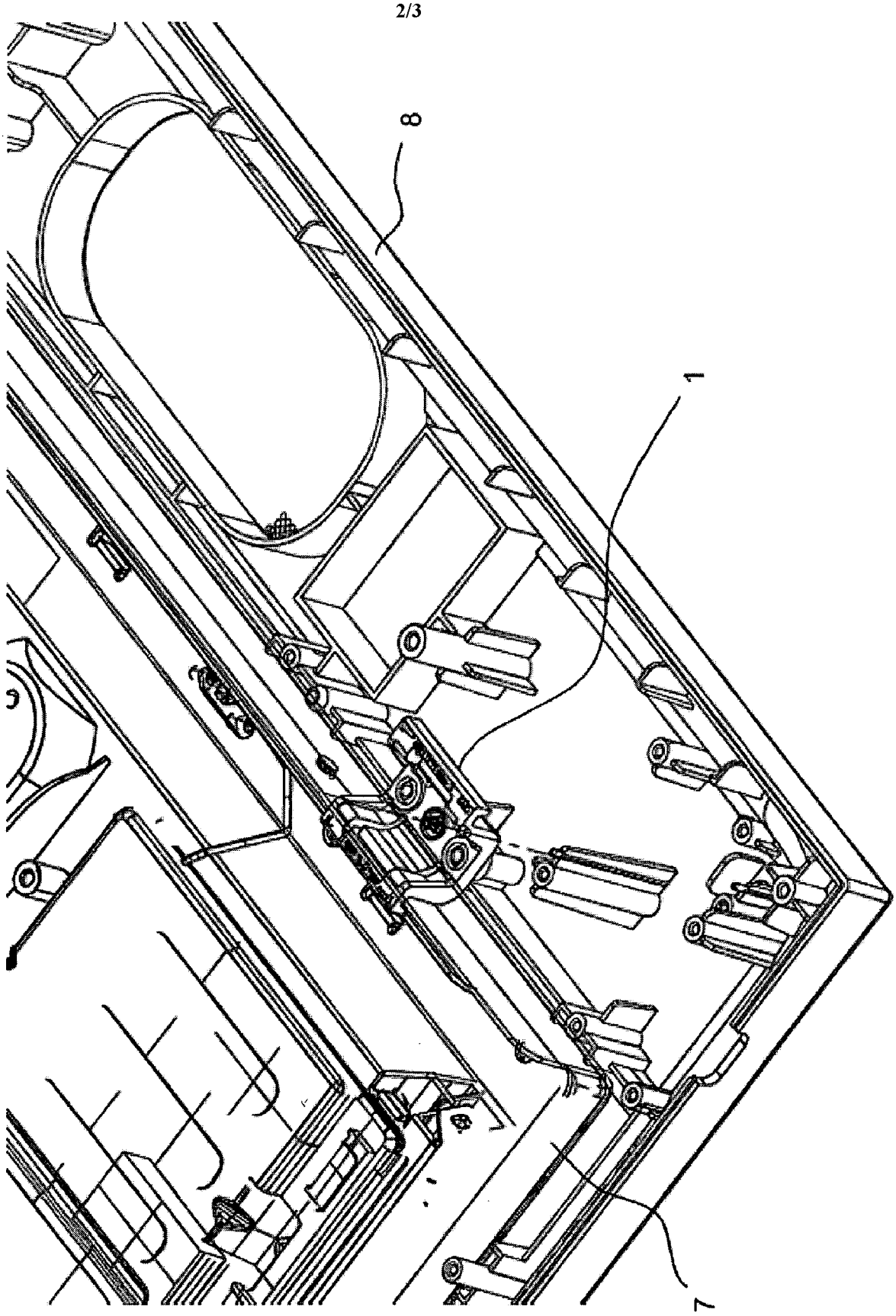


Figure 4

Figure 5

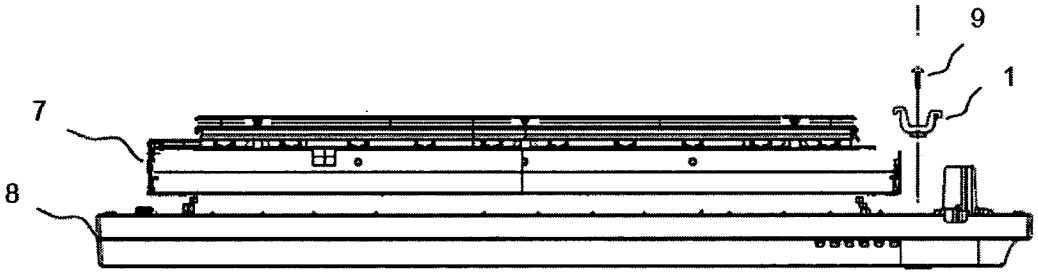
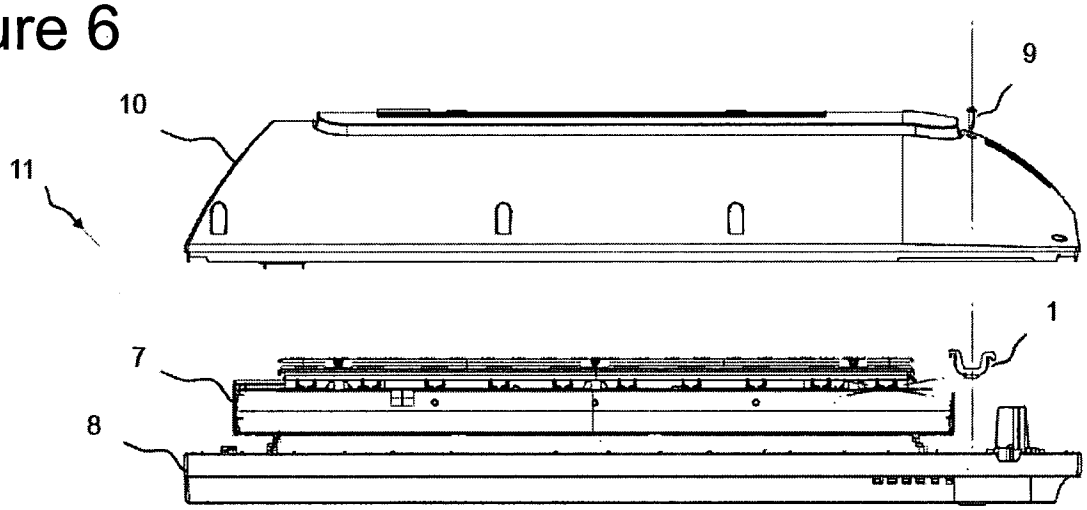


Figure 6



INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/052100

A. CLASSIFICATION OF SUBJECT MATTER
INV. G02F1/13 H04N5/64 G06F1/16

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)
G02F H04N G06F

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 practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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A	JP 2005 308794 A (FUNAI ELECTRIC CO) 4 November 2005 (2005-11-04) cited in the application abstract; figures 3,4,6,8	1-3
A	EP 1 544 714 A (FUJITSU LTD [JP]) 22 June 2005 (2005-06-22) figures 3-6	

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
24 October 2008	07/11/2008

Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Güvener, Cem

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/052100

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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