

REMARKS/ARGUMENTS

Claims 1-8 were pending in this application. Via this Response, claims 1 and 7 have been amended, and claims 2-5 and 8 have been cancelled. After the foregoing Amendment, claims 1, 6 and 7 are currently pending in this application. No new matter has been added.

Claims 5 and 7 have been rejected under 35 U.S.C. Section 112(b) or 35 U.S.C. 112 (pre-AIA) second paragraph as being indefinite. Claims 1-3 and 8 have been rejected under pre-AIA 35 U.S.C. Section 102(b) as being anticipated by JP 10-110951 (A), (hereinafter JP'951). Claims 4 and 6 have been rejected under pre-AIA 35 U.S.C. Section 103(a) as being unpatentable over JP'951 in view of JP 2005-340034 (A), (hereinafter JP'034). Claims 5 and 7 have been rejected under pre-AIA 35 U.S.C. Section 103(a) as being unpatentable over JP'951 in view of JP 2007-265892, (hereinafter JP'892).

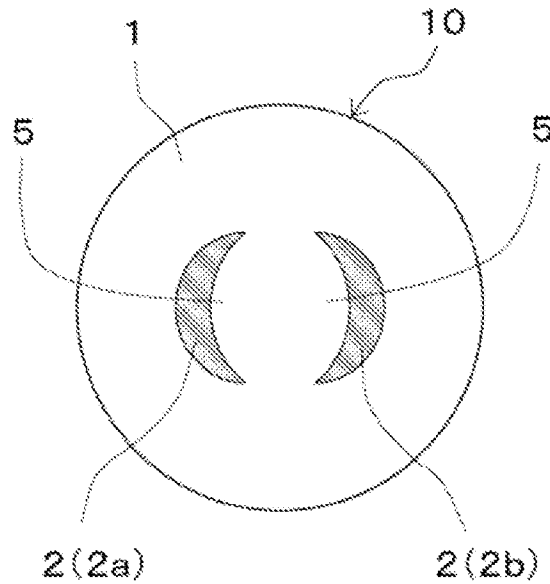
With respect to the rejection of claims 5 and 7 under 35 U.S.C. Section 112(b) or 35 U.S.C. 112 (pre-AIA) second paragraph as being indefinite, claim 5 has been deleted, and claim 7 has been appropriately amended. Withdrawal of this rejection is hereby requested.

With respect to the rejection of claims 1-3 and 8 under pre-AIA 35 U.S.C. Section 102(b) as being anticipated by JP'951, claims 4 and 6 under pre-AIA 35 U.S.C. Section 103(a) as being unpatentable over JP'951 in view of JP'034 and

claims 5 and 7 under pre-AIA 35 U.S.C. Section 103(a) as being unpatentable over JP'951 in view of JP'892, the Applicants respectfully disagree.

In a ceramic heater according to the present invention, a ceramic base body has a circular cylindrical shape, the two rectilinear portions each comprise a recessed inner elliptical arc side, and the respective recessed inner elliptical arc sides of the two rectilinear portions are opposed to each other in a transverse section of the two rectilinear portions, and the two rectilinear portions each have a crescentic shape in the transverse section. Accordingly, the contour of the transverse section of the ceramic base body and the shape of the region lying between the recessed wall surfaces formed in the opposed inner sides of the two rectilinear portions can differ from each other. As a result, it is possible to suppress resonance occurring between the outer part and inner part of the ceramic base body under a shock. This shape is illustrated in Figure 5 as shown below:

FIG. 5



Additionally, this configuration is clearly claimed in claim 1, the only independent claim, which is set forth below in pertinent part:

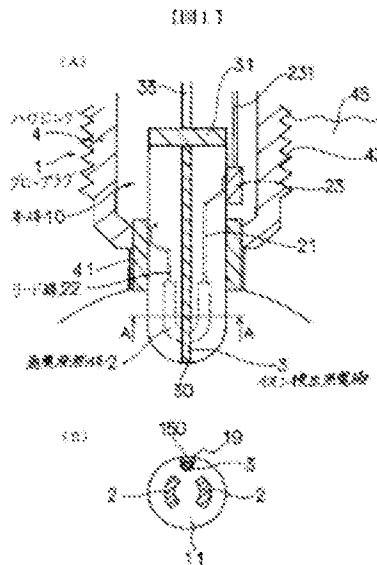
the two rectilinear portions each comprise a recessed inner elliptical arc sides, the respective recessed inner elliptical arc sides of the two rectilinear portions being opposed to each other in a transverse section of the two rectilinear portions, and

the two rectilinear portions each have a crescentic shape in the transverse section.

In contrast to the present invention, although JP'034 describes that the heat generating resistor has a crescentic shape in the transverse section thereof, JP'034 clearly does not disclose or suggest that the two rectilinear portions each comprise a recessed inner elliptical arc side, and that the respective recessed inner elliptical

arc sides are opposed to each other in a transverse section of the two rectilinear portions. In particular, in the teachings of JP'034, the heat generating resistor is formed by wrapping a ceramic sheet on which a pattern of the heat generating resistor is printed, around a circular cylindrical ceramic core bar. Accordingly, in the invention disclosed in JP'034, since a rectilinear portion of the pattern of the heat generating resistor has a crescentic shape in the transverse section thereof, and an inner side of the rectilinear portion comes in contact with a circular outer surface of the ceramic core bar, the inner side of the rectilinear portion becomes a circular arc. The inner side of the rectilinear portion does not become an elliptical arc.

In a similar manner, as disclosed in JP'951, the inner side of the rectilinear portion does not become an elliptical arc. This is clearly show in Figures 1A and 1B as are reproduced below:



JP'983 discloses a plurality of different configurations throughout the various figures set forth. However, none of the configurations disclose, or even suggest, that the two rectilinear portions each comprise a recessed inner elliptical arc side. Therefore, neither JP'951 nor JP'893, alone or in combination, disclose or suggest that the two rectilinear portions each comprise a recessed inner elliptical arc side.

The object of the present invention is to suppress the resonance. None of the cited references disclose unwanted resonance as an issue to address, and therefore none of the references are directed to such an object. Accordingly, none of JP'951, JP'034 or JP'893 disclose or suggest such a solution. Therefore, one having ordinary skill in the art would not be motivated to adopt such a structure that the two rectilinear portions comprise recessed inner elliptical arc sides.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing, Applicants respectfully submit that the present application, including claims 1, 6 and 7 are in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

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