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Case Number: T 72 / 82

DECISION
of the Technical Board of Appeal 3.5.1
of 14 March 1984

Appellant:

Square D Company
Executive Plaza
Park Ridge, IL 60068
U S A

Representative:

Baillie, Iain Cameron
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Blumenstr. 48
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Decision under appeal:

Decision of Examining Division 050 of the European Patent
Office dated 29 October 1981 refusing European patent
application No 79 900 721.6 pursuant to Article 97(1)
EPC

Composition of the Board:

Chairman: G. Korsakoff
Member: J. van Voorthuizen
Member: L. Gotti Porcinari

Summary of facts and submissions

- I. European Patent Application 79 900 721.6 filed on 13.06.79 (Publication No. WO 80/00115) claiming a priority of 16.06.78 (US) was refused by a decision of the Examining Division 050 of the European Patent Office of 29.10.81. That decision was based on claims 1 to 4 as submitted on 20.08.81.
- II. The reason given for the refusal was that the subject matter of the claims did not involve an inventive step having regard to FR-A-666 707.
- III. The applicant lodged an appeal against this decision on 29.12.81. The appeal fee was paid on the same date. The Statement of Grounds was filed on 25.02.82.
- IV. In a communication of 7.12.1982 the Rapporteur of the Board of Appeal notified the applicant that an essential feature which, as apparent from the Statement of Grounds, was necessary to obtain the desired effect did not appear in the then proposed claim 1, which, therefore, was not allowable.
- V. With his reply of 10.02.83 to this communication the applicant filed a set of amended claims in which account was taken of the observations by the Rapporteur. After some further necessary smaller amendments to the claims and the description had been pointed out by the Rapporteur in an informal interview with the applicants representative on 29.11.83, the applicant filed an amended description and claims on 08.12.83 and requested that a European patent be granted on the basis of these claims which read as follows:

1. An arc chute (11) for controlling, shaping and extinguishing an arc formed in a contactor as contact elements (14) separate, said arc chute (11) comprising: a pair of arc shielding side walls (29), a front portion (25) connected to the side walls (29) and having an opening therethrough providing a passage for the arc, a rear portion (27) connected to the side walls (29) and a top wall (24) extending between the sidewalls (29) and connected to the front (25) and the rear (27) portion, defining an arc chute chamber (31), characterized in that there are provided a number of spaced passageways (32) extending through the top wall (24) and centred along a line intermediate the side walls (29) from the front (25) to the rear (27) portions, the passageways (32) being inclined forwardly at an angle of approximately 45° relative to the rear wall and having a truncated conical lower section (28) leading into a smaller upper section (30).

2. An arc chute according to claim 1 characterized in that the passageways (32) have a generally round cross section.

3. An arc chute according to claim 1 or 2, characterized in that the lower and upper sections (28, 30) of the passageways (32) each extend approximately halfway through the top wall (24).

4. An arc chute according to claim 1, 2 or 3 characterized in that the top (24) and side walls (29) and the front (25) and rear (27) portions defining the arc chute (11) comprise two complimentary portions, molded of suitable arc-suppressing material and secured together with one half of each passageway (32) in each of the complimentary portions

Reasons for the decision

1. The appeal complies with Articles 106-108 and Rule 64 EPC and is, therefore, admissible.
2. Although the Examining Division properly rejected the application on the ground that the claim 1 then before it, did not involve an inventive step, the present claim 1 is not open to that objection. This claim is now limited by the inclusion of the specific angling and shape of the passageways (holes) in the top wall of the chute. FR-A-666 707 describes an arc chute which is essentially closed on three sides and in which holes are provided in the top and front wall in order to extinguish the arc. The specific angling and shape of the holes which according to the present application are provided in the top wall of the chute known from US-A-2 071 595 and which lead to a new and useful effect, i.e. that the arc is kept from moving directly above the contactor, is not disclosed by this document and cannot be considered as obvious to a person skilled in the art. Taking into account the state of the art known from the documents the present claim 1 is, therefore, allowable.
3. The dependent claims 2 to 4 describe particular embodiments of the invention, they are not open to objection.
4. The amendments to the description filed on 08.12.83 duly take account of the prior art and the new wording of the claims, in conformity with Rule 27(c) and (d) EPC respectively, in conjunction with Rule 36(1) EPC. They are, therefore, not open to objection.

Order

It is decided that

1. The decision under appeal is set aside
2. The case is remitted to the Examining Division with the order to grant the European patent applied for on the basis of the following documents:
 - (a) Claims 1-4 as filed on 08.12.83
 - (b) Description as filed on 08.12.83
 - (c) Drawings as originally filed.

J.R.
Uf.

J.R.

G. Karsch

