Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 73 / 82

# DECISION

of the Technical Board of Appeal 3.5.1

of 30 May 1983

Appellant: TOKYO SHIBAURA DENKI KABUSHIKI KAISHA
72, Horikawa-cho Saiwai-Ku Kawasaki-shi Kanagawa-Ken
JAPAN

Representative: Patentanwälte
Henkel, Pfenning, Feiler, Hänzel & Meinig
Möhlstrasse 37
8000 München 80

Decision under appeal: Decision of Examining Division 067 of the European Patent Office dated 4 March 1982 refusing European patent application No 79104367.2 pursuant to Article 97(1) EPC

Composition of the Board:

Chairman: G. Korsakoff

Member: J. van Voorthuizen

Member: P. Ford

## Summary of facts and submissions

I. European Patent Application No. 79 104 367.2 filed on 07.11.79 (Publication No. 0 011 232), claiming a priority of 09.11.78 (JP), was refused by a decision of the Examining Division 067 of the European Patent Office of 04.03.82. That decision was based on claim 1 as submitted on 22.10.81 and claims 2-8 as originally filed.

II. The reasons given for the refusal were that the application did not meet the requirements of Article 83 EPC and that claim 1 submitted on 22.10.81 offended against Article 123(2) EPC.

III. The applicant lodged an appeal against this decision on 08.03.82. The Statement of Grounds was filed on 28.04.82. The appeal fee was duly paid.

IV. In a communication dated 23.02.82, the Rapporteur raised a number of points concerning sufficiency of the disclosure and concerning certain obscurities and apparent contradictions. At the request of the applicant, oral proceedings were held on 31.05.83.

V. During the oral proceedings, the applicant's representative sought to explain the mode of operation of the recording-reproduction apparatus with which the present application is concerned. It was asserted that when the pinch roller is released before the capstan ceases to rotate, the tape is able to move in a direction transverse to the direction of movement, so that a small extra slack is created in addition to the slack which is already present when the apparatus is running in its steady state. The roll of tape continues to rotate

.../...

under the influence of inertia forces, whereby all slack in the tape downstream of the capstan is absorbed in the roll. Simultaneously, the roll delivers the same amount of tape through the slit in the periphery of the fixed reel as is absorbed, which amount of tape is taken up by the movement of the rotatable lever and guide pin, so that in the end when the roll has stopped rotating the tape has no other slack than that taken up by the lever. When the apparatus is re-started, the capstan and pinch roller move the tape forward until it touches the scanning mechanism and then the roll is set into motion by the pulling force exerted by the tape. All slack which was taken up by the lever will then be downstream of the capstan. In this way, the amount of slack would be the same in all phases of operation of the apparatus.

VI. In the course of the oral proceedings the applicant's representative also submitted an amended claim 1 and an alternative claim 1 which in his view could serve to avoid the problem of insufficient disclosure, by omitting from earlier filed versions of claim 1 the passage relating to the partial drawing of the slackened portion of the tape (new claim 1) or even omitting all reference to the releasing of the pinch roller before the rotation of the capstan is brought to an end and by retaining the tape portion drive means as the sole characterising feature of the claim. The applicant requested that a European patent be granted on the basis of this amended claim 1 or its alternative.





These claims read as follows:

New claim 1

1. A recording-reproduction apparatus for an endless tape which comprises: a hollow fixed reel (23) including an inner and outer wall, said outer wall being wound with an endless tape (18), guide means (24,25,26) for conducting the innermost portion of the tape (18) wound about the outer wall of the hollow fixed reel (23) from the inner wall of said hollow fixed reel (23) onto the outermost side of said wound tape (18), a head mechanism (16) for recording-reproducing operation of the tape (18) thus guided, and a pinch roller (14) and capstan (13) which are driven with the tape (18) held therebetween thereby causing the tape (18) to form a slackened portion downstream of the capstan (13) characterised by further including pinch roller drive means (15) for releasing the pinch roller (14) from the capstan (13) before the rotation of the capstan (13) is brought to an end and stopping of the tape running, and tape portion biasing means (30,31) for releasing the tape (18) from the head mechanism when the pinch roller (14) is released from the capstan (13) for partly pulling the slackened portion of the tape (18), whereby the slackened portion of the tape (18) is removed after the tape running is stopped.

Alternative claim 1

1. A recording-reproduction apparatus for an endless tape which comprises: a hollow fixed reel (23), the outer wall of which is wound with an endless tape (18); guide means (17) for conducting the innermost portion

of the tape (18) wound about the outer wall of the hollow fixed reel (23) from the inner wall of said hollow fixed reel (23) onto the outermost side of the roll of said wound tape (18); a scanning mechanism (16,17) for scanning the tape (18) thus guided; and a pinch roller (14) and capstan (13) which are driven with the tape (18) held therebetween; characterised by a pivotable lever (30) or other tape portion drive means for pulling a slackened portion of the tape (18) to release the tape portion from the scanning mechanism (16,17), capstan (13) and pinch roller (14).

Reasons for the decision

1. The appeal complies with Articles 106 to 108 and Rule 64 EPC and is therefore admissible.

2. From the explanations which were given, it has not become clear what effect would be obtained by the barely noticeable amount of extra slack or possibility of a small movement of the tape transverse to its normal direction of movement. Nor has it become clear why it would be essential to release the pinch roller while the capstan was still rotating, as the same explanation would appear to be valid when the pinch roller were released after the capstan had come to rest, as long as the roll of tape were still rotating under the influence of inertia forces.

3. Even if it is assumed that the apparatus could operate as explained, it is not certain that this explanation is the only possible one and it was not made clear that this manner of operation would inevitably lead to the





desired effect, i.e. a constant amount of slack during all phases of operation. It seems equally possible, for instance, that at the moment when the pinch roller is released the then completely free tape would be partially or totally drawn back by the movement of the lever.

4. It follows from the explanations in the oral proceedings that inertia forces play a preponderant role in the whole operation of the apparatus, but this is by no means evident from the description. Nor is it obvious from the description that the amount of tape taken up by the lever consists of tape which is delivered via the slit. Furthermore, neither the explanations nor the description make it clear in what way the person skilled in the art, when designing apparatus according to the present application, can make sure that the same amount of tape is delivered through the slit and taken up by the lever as is taken up by the roll of tape at its outer periphery, in particular as no pulling force is exerted on the tape by the capstan after the release of the pinch roller. The description does not contain a precise indication as to the point in time when the release of the pinch roller must take place (page 6, lines 6,7 "... when the rotation of the capstan is not completely brought to an end...."; page 6, lines 21,22 "... just before the rotation of the capstan is completely brought to an end.").

5. Summarising, in the opinion of the Board of Appeal, the explanation now given, which differs in some respects again from earlier explanations provided by the applicant, fails to establish a conclusive and unambiguous relation between the constructional features described

in the application and the elimination of certain disadvantages of prior art apparatus as set out in the introductory part of the description.

It follows that the application does not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art as is required by Article 83 EPC.

6. The amended claims submitted in the course of the oral proceedings, in which unclear passages were simply omitted, do not remedy the fundamental deficiency of the application as a whole as they do not provide any clarification. Considering these new claims together with the description, the person skilled in the art will still not find the teaching which will enable him to carry out the invention, so as to solve the technical problem mentioned in the description. He would be confronted with the same obscurities as before.

No new situation is therefore created by the submission of the amended claims which would justify further discussion before a decision were taken by the Board of Appeal.

In particular under these circumstances the question whether the new claims would be allowable having regard to Article 123(2) EPC need not be considered.





For these reasons

it is decided that:

the appeal against the decision of the Examining Division of the EPO dated 04.03.82 is rejected.