

Internal distribution code:

- (A) Publication in OJ
(B) To Chairmen and Members
(C) To Chairmen
(D) No distribution

**Datasheet for the decision
of 12 November 2008**

Case Number: T 0701/08 - 3.5.03

Application Number: 98306054.2

Publication Number: 0897236

IPC: H04M 1/02

Language of the proceedings: EN

Title of invention:

Foldable portable radio communication apparatus

Patentee:

NEC CORPORATION

Opponent:

-

Headword:

Foldable telephone/NEC

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (no)"

Decisions cited:

-

Catchword:

-



Case Number: T 0701/08 - 3.5.03

D E C I S I O N
of the Technical Board of Appeal 3.5.03
of 12 November 2008

Appellant:

NEC CORPORATION
7-1, Shiba 5-chome,
Minato-ku
Tokyo (JP)

Representative:

MacDougall, Alan John Shaw
Mathys & Squire LLP
120 Holborn
London EC1N 2SQ (GB)

Decision under appeal:

Decision of the Examining Division of the
European Patent Office posted 28 November 2007
refusing European application No. 98306054.2
pursuant to Article 97(1) EPC 1973.

Composition of the Board:

Chairman: A. S. Clelland
Members: B. Noll
M.-B. Tardo-Dino

Summary of Facts and Submissions

I. This appeal is against the decision of the examining division to refuse European patent application No. 98306054.2 on the grounds that the subject-matter of claim 1 of each of the then main and first auxiliary requests lacked novelty and that the subject-matter of claim 1 of each of the then second and third auxiliary requests lacked an inventive step. The examining division referred to the following document:

D1: EP-A-0 776 115

II. The applicant (appellant) lodged an appeal against the decision and in the notice of appeal requested that the decision be set aside and that the application be allowed to proceed to grant. In the statement of grounds, grant of a patent was requested on the basis of the claims of a main request or one of three auxiliary requests. Oral proceedings were conditionally requested.

III. In a communication accompanying the summons to oral proceedings the board gave a preliminary opinion on clarity, novelty and inventive step. In response to the board's communication the appellant filed five new sets of claims, claims 1 to 9 according to each of a main request and first to third auxiliary requests, and claims 1 to 8 according to a fourth auxiliary request.

IV. Claim 1 of the main request reads as follows:

"A foldable mobile telephone configured for use as a telephone handset to be held against a user's

head when in an unfolded state, the telephone comprising:
a first housing (1a) having a first speech receiving section (2) on an inner surface thereof;
a second housing (1b) having a first speech transmitting section (4) on an inner surface thereof; and
a hinge section (1c) rotatably connecting said first housing and said second housing such that said first housing and said second housing are foldable so that the inner surface of said first housing opposes the inner surface of said second housing when the apparatus is in a folded state and the first speech receiving and transmitting sections are positionable substantially adjacent to an ear and a mouth, respectively, of the user when the apparatus is in the unfolded state;
wherein a second speech receiving section (6) and a second speech transmitting section (7) are provided on an outer surface of one of said first and second housings to allow communication in the folded state of the apparatus."

Claim 1 of the first auxiliary request differs from claim 1 of the main request in that the first housing further has a display, the second housing further has a key operation section, and by the features

"wherein the display (3) is disposed between the first speech receiving section (2) and the hinge section (1c);

wherein the key operation section (5) is disposed between the first speech transmitting section (4) and the hinge section (1c)".

Furthermore, the last feature is modified such that it explicitly allows use as a handset for communication in the folded state.

Claim 1 of the second auxiliary request adds to claim 1 of the main request the feature that the first and second housing have short and long edges, and that hinge section connects the first and second housings by their respective short edges.

Claim 1 of the third auxiliary request adds to claim 1 of the main request the features that the hinge rotatably connects respective ends of the first and second housing, and that the second speech transmitting section is located at the hinged end, and the second speech receiving section is located at the unhinged end, thereby to allow communication as a handset also in the folded state.

Claim 1 of the fourth auxiliary request adds to claim 1 of the first auxiliary request the feature that a second key operation section is provided on the outer surface of the other one of said first and second housings for controlling calls when the apparatus is in said folded state.

- V. Oral proceedings were held on 12 November 2008. At the end of the oral proceedings the board announced its decision.

Reasons for the Decision

1. Foldable telephones, commonly referred to as "clamshell telephones", were commercially available before the claimed priority date, as is indeed acknowledged in the application. A typical design is shown in Figure 1 of the present application. This telephone consists of two hinged housings and includes a microphone and a keyboard on the inner surface of one of the housings, and a speaker and a display on the inner surface of the other housing. This telephone is described in the application as prior art.

The board concurs with the appellant that this telephone is to be considered as the closest prior art for all requests, since it constitutes the starting point for the claimed invention and allows a clear definition of a technical problem to be solved.

2. *Main request - inventive step*
 - 2.1 It was common ground at the oral proceedings that the first to third features of claim 1 are known from the telephone shown in Figure 1 of the application and that the telephone according to claim 1 differs from that shown in Figure 1 only by the last feature, i.e. in that a second speech receiving section and a second speech transmitting section are provided on an outer surface of one of said first and second housings to allow communication in the folded state.
 - 2.2 This additional feature adds a new functionality to the known telephone in that it can be used for a telephone call both in the open and in the folded state.

The appellant derives the technical problem to be solved, when starting out from the Figure 1 telephone, as being to increase the functionality of the known clamshell telephone.

The board sees no reason to disagree and concludes that the objective technical problem is as defined by the appellant.

- 2.3 A telephone having increased functionality is known from D1. D1 describes a dual-function mobile telephone having a telephone functionality in the closed state and a laptop-like functionality in the unfolded state. In the closed state the telephone provides a conventional mobile telephone user interface including a small-sized display 1b, a numerical keyboard 1a, a speaker 3 and a microphone 4. In the unfolded state the user interface includes a QWERTY keyboard 2a and a large display 2b. D1 aims at extending the capabilities of this dual-function mobile telephone such that two different user interfaces can be used simultaneously (column 2, lines 40 to 43). From this indication the board concludes that D1 relates to the same general technical problem as discussed above. The teaching of D1 encourages the person skilled in the art to provide a user with telephone functionality in both the folded and the unfolded states of the telephone. The skilled person is further taught to implement this additional functionality by means of two separate sets of speaker and microphone arranged on the inner and outer surfaces of the telephone, see Figures 1 and 3 of D1. The modified telephone comprises a first speaker 3 and a first microphone 4 on an outer surface of one housing,

and a second speaker 5 and a second microphone 6 on respective inner surfaces of the housings. In the board's view it would have been obvious for the person skilled in the art to apply the extra functionality of the D1 telephone to the telephone shown in Figure 1 of the present application in order to solve the problem identified above. In doing so the skilled person would arrive at the claimed arrangement. Consequently, the subject-matter of claim 1 does not involve an inventive step (Article 56 EPC).

2.4 In the course of the oral proceedings the appellant argued that a person skilled in the art would not have considered D1 because its teaching led away from the invention as claimed. The mobile phone of D1 was used as a handset for telephony only in the folded state whereas it was designed for hands-free operation in the unfolded state, which inherently excluded the possibility of holding it against a user's head. The skilled person, faced with the technical problem discussed at point 2.2 above, would have no reason to take D1 into account. To apply the teaching of D1 to the telephone of Figure 1 of the application was based on hindsight.

The appellant's arguments are not considered convincing since they require an unduly narrow view of the teaching of D1 which focuses on the laptop-like functionality it provides, teaching which is not however relevant to the present case. In the board's view the skilled person would appreciate from a study of D1 that in a telephone which has both open and closed states it is possible to provide telephone functionality in both states. This appreciation is

independent of the laptop-like functionality of D1, so that the skilled person would be led without the exercise of inventive skill to provide similar functionality in the phone of Figure 1 of the application.

3. *First and second auxiliary requests - inventive step*

The features added to claim 1 of the first and second auxiliary requests are known from the telephone shown in Figure 1 of the application; consequently, the arguments at point 2.3 above as regards claim 1 of the main request are equally applicable to claim 1 of these requests. Accordingly, the subject-matter of claim 1 of the first and second auxiliary request does not involve an inventive step for the same reasons as for the main request.

4. *Third auxiliary request - inventive step*

According to the appellant the specific arrangement of the second speech transmitting and receiving section, i.e. with the microphone and speaker at the hinged and unhinged ends respectively of the outer surface, makes it easier for the user to switch from the folded to the unfolded state during a call. The board notes however that there is no mention in the application as filed of this alleged effect. The board in any case fails to see that the folded telephone can be opened any less easily when the microphone and speaker are at the unhinged and hinged ends respectively. Be that as it may, the specific arrangement of the second speech transmitting and receiving sections is considered a matter of non-inventive choice for the skilled person. In conclusion,

the subject-matter of claim 1 of the third auxiliary request does not involve an inventive step.

5. *Fourth auxiliary request - inventive step*

Regarding claim 1 of the fourth auxiliary request the appellant argued in the course of the oral proceedings that arranging the second key operation section as claimed would prevent unintentional operation of the keys which could otherwise occur were keys located on the same surface as the speech sections and thus liable to be pressed against a user's head. The board is not convinced by this argument; if it were correct it could be expected that conventional mobile telephones having the speaker and the keys on the same surface would show this drawback. This, however, is not the general experience with mobile telephones. Furthermore, there is no indication in the application documents that key location is of any importance. The board therefore considers the selection of a location for the key section as a matter of non-inventive choice and the claimed location to be one of the limited number of alternatives available to the skilled person, which cannot justify an inventive step.

6. Since the subject-matter of claim 1 of none of the requests meets the requirement of inventive step the appeal cannot be allowed.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Magliano

A. S. Clelland