

The opinion in support of the decision being entered today is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS D. SNYDER, ALEXANDER P. DE KOSTER,
and CHRIS EATON

Appeal 2007-1248
Application 10/324,441
Technology Center 2600

Decided: July 5, 2007

Before JAMES D. THOMAS, JOSEPH L. DIXON, and ANITA PELLMAN GROSS, *Administrative Patent Judges*.

GROSS, *Administrative Patent Judge*.

DECISION ON APPEAL
STATEMENT OF THE CASE

Snyder, de Koster, and Eaton (Appellants) appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 5, 7 through 19, 21 through 25, and 28 through 31, which are all of the claims pending in this application.

Appellants' invention relates to a combination audio and charger jack.
Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. An electronic device comprising:
 - a power circuit;
 - a data circuit;
 - a connector for connecting-external power and data peripherals to said power and data circuits, said connector comprising:
 - a shared first contact selectively coupled either to said power circuit or to said data circuit; and
 - a second contact for coupling to a ground of said electronic device; and
 - a control circuit configured to sense a peripheral type based on whether a power peripheral or a data peripheral is connected to the connector, and further configured to couple said first contact either to said power circuit or to said data circuit based on the sensed peripheral type.

The prior art references of record relied upon by the Examiner in rejecting the appealed claims are:

Romao	EP 1 134 958 A1	Sep. 19, 2001
Kato	US 2002/0028676 A1	Mar. 07, 2002
Potega	US 6,634,896 B1	Oct. 21, 2003 (filed Aug. 23, 1999)

Claims 1, 3, 5, 7 through 17, 19, 21 through 25, 28, 29, and 31 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Romao.

Claims 13 and 30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Romao.

Claims 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over Romao in view of Kato.

Claims 4 and 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Romao in view of Potega.

We refer to the Examiner's Answer (mailed October 10, 2006) and to Appellants' Brief (filed June 13, 2006) and Reply Brief (filed October 30, 2006) for the respective arguments.

SUMMARY OF DECISION

As a consequence of our review, we will reverse the anticipation rejection of claims 1, 3, 5, 7 through 17, 19, 21 through 25, 28, 29, and 31 and also the obviousness rejections of claims 2, 4, 13, 18, and 30.

OPINION

Each of independent claims 1 and 17 recites a control circuit that senses a peripheral type based on the type of peripheral that is connected to the connector and that couples a shared contact to a power circuit or a data circuit based on the type of peripheral sensed. Independent claim 25 recites the steps of sensing a peripheral type based on the type of peripheral that is connected to the jack and selectively coupling a shared contact to a power circuit or a data circuit based on the type of peripheral sensed. Thus, all of the independent claims require sensing the type of peripheral that is plugged into the jack and selectively connecting a shared contact to either a power circuit or a data circuit based on the type of peripheral that is sensed.

The Examiner asserts (Answer 4 and 12-13) that connector pins 41-44 sense or detect the type of peripheral plugged into the jack and couple shared

contact 44 to the data circuit 52 or power circuit 34/35 depending on the type of peripheral sensed. The Examiner explains (Answer 13) that Romao includes two switches, switch 35 and capacitor 32, that couple the shared contact to the power and data circuits. Specifically, the Examiner states (Answer 13) that the capacitor allows current to pass through it to the shared contact if the data peripheral is connected but does not allow current to pass to the shared contact if the power peripheral is connected.

Appellants contend (Br. 9) that the shared contact in Romao's connector connects to both a data circuit and a power circuit regardless of what type of peripheral is plugged into the socket. Further, by placing a capacitor between the shared contact and the data circuit, Romao "obviates the need for detecting a peripheral type and switching between power and data circuits." Thus, according to Appellants (Br. 9-10), Romao does not have any type of detecting or sensing of the type of peripheral connected to the mobile phone or any type of selective connection circuitry as required by the claims. The issue, therefore, is whether Romao discloses a control circuit that 1) senses or detects the type of peripheral plugged into the jack and 2) selectively couples a shared contact to either the data circuit or the power circuit based on the type of peripheral sensed.

We agree with Appellants that Romao's pins (or contacts) 41-44 do not sense or detect anything. They merely provide a means for connecting contacts 21-24 with the data and power circuits. The pins make no determinations as to what is in contact therewith. See Romao, Fig. 3. Further, we find no other elements in Romao that sense or detect the type of peripheral. Accordingly, Romao fails to disclose sensing a peripheral type. In addition, we agree with Appellants that Romao fails to disclose the

claimed selective coupling of the shared contact to the data and power circuits based on the type of peripheral plugged into the jack. Romao's shared contact 44 is coupled to data circuit 52 and to power circuit 34 regardless of the type of peripheral plugged into the jack. See Romao, Fig. 3. Contact 44 is not coupled to the power circuit when charging control switch is open. However, charging control switch 35 is closed manually by the user or automatically when the battery goes below a charging threshold and is opened when the battery reaches the charging threshold. See Romao, paragraph 17. Thus, Romao's shared contact is not coupled to the power circuit based on the type of peripheral plugged into the jack, but rather based on the charging state of the battery.

"It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim." *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). *See also Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Since Romao fails to disclose the claimed sensing of the type of peripheral and the claimed selective coupling to the data circuit or the power circuit based on the sensed peripheral type, Romao cannot anticipate independent claims 1, 17, and 25, nor their dependents, claims 3, 5, 7 through 16, 19, 21 through 24, 28, 29, and 31.

Claims 13 and 30 add a limitation of sensing the signal characteristic or condition of the connector contacts as an ac or a dc signal. The Examiner asserts (Answer 8) that "it would have been obvious to modify Romao, such that the control circuit senses said signal characteristics as one of a dc signal and an ac signal, to provide a method of switching to the appropriate power

or data circuit based on the sensed AC/DC signal." The Examiner further asserts (Answer 19) that "[i]t is obvious that [Romao's] control circuit senses an [sic] DC signal of the power peripheral ... which directs the electrical current towards the switch 35 and battery to allow for the charging control switch to close and if the data peripheral is connected the control circuit senses the AC signal from the battery and prevents the switch from closing." Appellants contend (Br. 16) that Romao has no need to distinguish between the types of signals because switch 35 opens or closes based on the state of the battery. The issue is whether it would have been obvious to modify Romao to sense the type of signal from connector contacts.

As stated *supra*, we find no teaching in Romao of any sensing of the type of peripheral. Romao's contact pins do not sense or detect anything. Romao accomplishes the connection to the appropriate circuit without sensing the type of peripheral and therefore has no need for such sensing. Accordingly, it is unclear to us, and the Examiner has not explained, why the skilled artisan would have added additional circuitry to Romao to do what Romao's device already does. Thus, we will not sustain the obviousness rejection of claims 13 and 30.

Claim 2 limits the type of data circuit to an audio or a video circuit, and claims 4 and 18 limit the type of connector to a barrel jack. The Examiner relies upon Kato and Potega, respectively, for the additional limitations. However, neither Kato nor Potega cures the deficiencies of Romao. Therefore, we cannot sustain the obviousness rejections of claims 2, 4, and 18.

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ORDER

The decision of the Examiner rejecting claims 1, 3, 5, 7 through 17, 19, 21 through 25, 28, 29, and 31 under 35 U.S.C. § 102(b) and claims 2, 4, 13, 18, and 30 under 35 U.S.C. § 103 is reversed.

REVERSED

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