

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* BRUCE DICKSON,  
DAVID LOUIS KAMINSKY,  
AND MARCIA LAMBERT PETERS

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Appeal 2007-0431  
Application 09/396,873  
Technology Center 2100

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Decided: March 28, 2007

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Before KENNETH W. HAIRSTON, LANCE LEONARD BARRY, and  
MAHSHID D. SAADAT, *Administrative Patent Judges*.  
HAIRSTON, *Administrative Patent Judge*.

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from a final rejection of claims 2 to 13, 15 to 17, 19 to 24, 26 to 32, 34 to 37 and 39. After consideration of Appellants' arguments in the brief, the Examiner objected to claims 7, 16, 19 to 21, 32 and 35 as being dependent upon rejected base

claims. Accordingly, claims 2 to 6, 8 to 13, 15, 17, 22 to 24, 26 to 31, 34, 36, 37 and 39 remain before us on appeal. We have jurisdiction under 35 U.S.C. § 6(b).

Appellants have invented a method and system for masking temperature differentials left by a user on the keypad of a data entry device, and a method and system for masking sound waves emitted from the data entry apparatus when used by the user. (Specification 5 to 7).

Claims 2 and 15 are representative of the claims on appeal, and they read as follows:

2. A method for protecting data entry to a data entry device from eavesdropping, wherein a signature of data entry comprises a temperature differential in the data entry device from data entry by the user, comprising:

masking the signature of data entry resulting from entry of data by a user of the data entry device so as to reduce the detectability of the signature through eavesdropping by controlling the external temperature of the data entry device to reduce temperature differentials left in the data entry device by the user.

15. A method for protecting data entry to a data entry device from eavesdropping, wherein a signature of data entry comprises sound waves emitted from the data entry device, comprising:

masking the signature of data entry resulting from entry of data by a user of the data entry device so as to reduce the detectability of the signature through eavesdropping by generating an interfering sound pattern so as to reduce the detectability of the sound waves.

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

McGregor	US 4,052,720	Oct. 4, 1977
Jacobi	US 4,727,655	Mar. 1, 1988
Clausen	US 5,611,608	Mar. 18, 1997
Chang	US 5,828,034	Oct. 27, 1998

The Examiner rejected claims 2 to 6, 9 to 12, 23, 24, 26 to 28, 30 and 31 under 35 U.S.C. § 102(e) based upon the teachings of Chang. The Examiner rejected claim 8 under 35 U.S.C. § 103(a) based upon the teachings of Chang. The Examiner rejected claims 6, 13 and 29 under 35 U.S.C. § 103(a) based upon the teachings of Chang and Jacobi. The Examiner rejected claims 15, 17, 22, 34, 36, 37 and 39<sup>1</sup> under 35 U.S.C. § 103(a) based upon the teachings of McGregor and Clausen.

Appellants contend that Chang’s “[m]onitoring for temperature to reduce temperature differentials in different keypads is different than monitoring for maintaining a comfort temperature” (Br. 11). Appellants also contend that “nothing in the cited portion of McGregor discloses or suggests that such generated noise and music be used to mask a signature of data entry” (Br. 14).

We hereby reverse the anticipation rejection and the obviousness rejection of claims directed to masking based on temperature differentials, but sustain the obviousness rejection of claims directed to masking based on sound.

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<sup>1</sup> We assume that claim 39 was inadvertently omitted from the listing of claims subject to the obviousness rejection based upon the teachings of McGregor and Clausen.

## ISSUES

Does Chang mask or reduce temperature differentials left by the user of a data entry device?

Does McGregor teach or suggest the use of a generated noise to mask the sound waves emanating from a data entry device?

## FINDINGS OF FACT

As indicated *supra*, Appellants mask a temperature differential left by a user on a keypad of a data entry device. In another embodiment, Appellants mask sound that emanates from the data entry device when in use.

Chang uses heat exclusively to combat a cold environment surrounding a keyboard (Figures 1 and 2), a mouse (Figures 3 and 4) and a wrist rest (Figure 7). The heat source can be internal or external of the keyboard, mouse and wrist rest (Abstract; col. 1, ll. 53 to 67).

Jacobi describes the use of an infrared heat lamp 48 in an air duct to dry coated and printed materials (Figure 3; col. 1, ll. 5 to 7; col. 4, ll. 3 to 6).

McGregor describes the use of a generated noise 14 to mask other noises 32 and 36 in a room 30 (Figure 1; col. ll. 14 to 31; col. 6, ll. 23 to 26).

Clausen describes an office desk designed to conceal computer equipment (Figures 1 and 2; Abstract; col. 2, ll. 56 to 64).

## PRINCIPLES OF LAW

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347, 51 USPQ2d 1943, 1946 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

In affirming a multiple reference rejection under 35 U.S.C. § 103(a), the Board may rely on one reference alone without designating it as a new ground of rejection. *In re Bush*, 296 F.2d 491, 496, 131 USPQ 263, 266-67 (CCPA 1961); *In re Boyer*, 363 F.2d 455, 458, n.2, 150 USPQ 441, 444, n.2 (CCPA 1966).

#### ANALYSIS

Chang is silent as to the use of masking to reduce temperature differentials left in the data entry device by the user of the device.

Jacobi is silent as to the use of masking to reduce temperature differentials.

Although McGregor does not mention a data entry device, we are of the opinion that the skilled artisan would recognize that sound waves emitted from a data entry device in a room 30 described by McGregor would be masked by the masking noise 14 emitted by the loudspeakers 26 into the room.

#### CONCLUSIONS

Anticipation of claims 2 to 6, 9 to 12, 23, 24, 26 to 28, 30 and 31 has not been established by the Examiner because the environmental heater described by Chang does not use masking to reduce temperature differentials left in the data entry device by the user of the device.

For the same reason, the obviousness of claim 8 based upon the teachings of Chang has not been established by the Examiner.

The obviousness of the claimed subject matter set forth in claims 6, 13 and 29 has not been established by the Examiner because the teachings of the secondary reference to Jacobi fail to cure the noted shortcoming in the teachings of Chang.

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The obviousness of claims 15, 17, 22, 34, 36, 37 and 39 has been established by the Examiner because the skilled artisan would have known that the noise from the loudspeakers in the room described by McGregor would serve as an interfering sound pattern to reduce the detectability of sound waves coming from a data entry device in the room.

#### DECISION

The anticipation rejection of claims 2 to 6, 9 to 12, 23, 24, 26 to 28, 30 and 31 is reversed. The obviousness rejections of claims 6, 8, 13 and 29 are reversed. The obviousness rejection of claims 15, 17, 22, 34, 36, 37 and 39 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

KIS

MYERS, BIGEL, SIBLEY & SAJOVEC  
P. O. BOX 37428  
RALEIGH, NC 27627