

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NAOKI KIGAWA

Appeal No. 1997-1571
Application 08/048,123¹

ON BRIEF

Before HAIRSTON, JERRY SMITH, and FLEMING, Administrative
Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 9
and 11 through 16.

The disclosed invention is directed to an interactive
graphic editing system and method for designing a

¹Application for patent filed April 14, 1993.

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semiconductor integrated circuit. The interactive graphic editing system includes an attribute data base storage unit and an editing unit comprising a pattern figure editing unit, an attribute setting unit, and a processing unit. More particularly, the attribute data base storage unit stores attributes of various editing objects necessary for simulating characteristics of the designed semiconductor integrated circuit, and the editing unit includes means for enabling the editing objects to be manipulated and for fetching data from the attribute data base storage unit to determine whether the attributes of the selected editing objects can be set and to allow a user to select the attributes of the editing objects.

Claims 9 and 15 are illustrative of the claimed invention, and they read as follows:

9. An interactive graphic editing system for designing a semiconductor integrated circuit comprising:

an attribute data base storage unit in which attributes of various editing objects necessary for simulating characteristics of the semiconductor integrated circuit being designed are stored, and

editing means for enabling the editing objects to be manipulated and for fetching data from the attribute data base storage unit on selection of the editing objects to determine whether or not the attributes for the selected editing objects can be set and, if the attributes can be set, allowing a user

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to select attributes for the editing objects.

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15. An interactive graphic editing method for designing a semiconductor integrated circuit comprising the steps of:

selecting an editing pattern object displayed on a graphic display of a graphic terminal by a pointing device,

causing a processing unit to fetch from an attribute data base storage unit attributes of the editing pattern object,

causing the processing unit to decide if attributes can be set for the editing pattern object based on the fetching of attribute data from the attribute data base storage unit,

causing the processing unit to issue instructions to display menu data inclusive of an attribute setting item on the graphic display if a decision is made that the attributes can be set,

deciding if the attribute setting item among the displayed menu data has been selected,

fetching from the attribute data base storage unit all data necessary for attribute setting when the attribute setting item has been selected, and

permitting attributes to be set for the editing pattern object based on the attribute data.

The references relied on by the examiner are:

Daniel et al. (Daniel) "CAD Systems for IC Design,"
DALTCAD82:1084, Jan. 1982.

Wada et al.(Wada) 4,984,180 Jan. 8, 1991

Claims 9 and 11 through 16 stand rejected under 35 U.S.C.
§ 103(a) as being unpatentable over Wada in view of Daniel.

Reference is made to the brief and the answer for the respective positions of the appellant and the examiner.

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OPINION

We have carefully considered the entire record before us, and we will reverse the rejection of claims 9 and 11 through 16.

The Section 103 rejection of claims 9, 11 through 14 and 16

To establish a prima facie case of obviousness based on a combination of the content of various references, there must be some teaching, suggestion or motivation in the prior art to make the specific combination that was made by the applicant. In re Raynes, 7 F.3d 1037, 1039, 28 USPQ2d 1630, 1631 (Fed. Cir. 1993); In re Oetiker, 977 F.2d 1443, 1447, 24 USPQ2d 1443, 1446 (Fed. Cir. 1992). Obviousness cannot be established by hindsight combination to produce the claimed invention. In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). In the instant case, the examiner has failed to establish a prima facie case of obviousness.

Both appellant and examiner have agreed that the primary reference, Wada does not disclose an attribute data base storage unit storing "attributes of various editing objects necessary for simulating characteristics of the semiconductor

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integrated circuit" as recited in claims 9 and 16 (Brief, page 7; Answer, page 3). The examiner, however, has determined that "Daniel et al. teaches that the use of CAD for designing integrated circuits that are to be used for simulation was a well known practice in the art" (Answer, page 3). As such, the examiner has concluded that it would have been obvious to one of ordinary skill in the art "to assign attribute values to a semiconductor IC instead of a piping system, since Daniel et al. has taught that ICs can be designed efficiently. . .using the CAD" (Answer, page 3).

Appellant has argued (Brief, page 7) that there is no rationale for the examiner's modification of Wada, that the applied prior art does not meet the claim limitations, and that Daniel appears not to disclose the storage of "attributes of editing objects necessary for simulating IC characteristics" (emphasis in original). We agree with appellant.

Reviewing the prior art relied on by the examiner, we find that neither Wada nor Daniel discloses or suggests the claim limitation "an attribute data base storage unit in which attributes of various editing objects necessary for simulating

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characteristics of the semiconductor integrated circuit being designed are stored," let alone motivates one of ordinary skill in the art to combine the references to arrive at the subject matter of claims 9 and 16. We fail to see any teaching, suggestion or motivation in the applied prior art which would have led one of ordinary skill in the art to modify Wada by storing "attributes of various editing objects necessary for simulating characteristics of the semiconductor integrated circuit being designed" in an attribute data base storage unit to arrive at the claimed invention. It is our view that the examiner's determination of obviousness is based on impermissible hindsight reconstruction of the claimed invention "wherein that which only the inventor taught is used against its teacher." W.L. Gore & Assoc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

Accordingly, we do not sustain the obviousness rejection of claims 9 and 16. It follows that we do not sustain the obviousness rejection of claims 13 and 14, which depend from claim 9, and claims 11 and 12, which depend from claim 16.

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The Section 103 rejection of claim 15

Claim 15 relates to "[a]n interactive graphic editing method for designing a semiconductor integrated circuit" with the step of "selecting an editing pattern object displayed on a graphic display. . ." (emphasis added). The term "editing pattern object" recited in claim 15, read in light of the specification and the preamble, refers, not to any type of "editing objects," but rather to those "editing objects" concerning "pattern" operation related to the design of "semiconductor integrated circuits." The term "design object" in Wada can be construed as an "editing object," but it does not read on the term "editing pattern object" recited in claim 15. Stated differently, Wada discloses "designing objects" for designing piping systems. Wada does not disclose an "editing pattern object" for the design of semiconductor integrated circuits as claimed. The secondary reference to Daniel does not cure these deficiencies. In our opinion, the examiner's proposed modification amounts to an impermissible hindsight reconstruction of the claimed invention. Without having the benefit of appellant's teachings, one of ordinary skill in the art would not have equated the step of selecting

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"an editing pattern object" in a method for designing a
semiconductor integrated circuit with Wada's step of selecting
a "design object" in designing a pipng system.

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Accordingly, we do not sustain the obviousness rejection of claim 15.

DECISION

The decision of the examiner rejecting claims 9 and 11 through 16 under 35 U.S.C. § 103(a) is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JERRY SMITH)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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KWH:hh

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