

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board

Paper No. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BARTHOLOMEUS G.M.H. DILLEN
and ANTONIUS J.C. BRUIJNS

Appeal No. 1998-2904
Application 08/715,256

ON BRIEF¹

Before THOMAS, GROSS and BARRY, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1 through 18, which constitute all the claims pending in the application.

¹ The oral hearing set for January 9, 2001 was waived by appellants in their facsimile communication on January 8, 2001.

Representative claim 1 is reproduced below:

1. An image pick-up apparatus, comprising an image sensor with a plurality of gate electrodes arranged over a semiconductor body and, in dependence on voltages applied to the gate electrodes, defining lateral dimensions of regions in the semiconductor body which constitute respective light-sensitive elements, each light-sensitive element being underneath one or more adjoining gate electrodes and having an active surface area, which light-sensitive element converts radiation incident on its active surface area into collected charge carriers, and a control circuit which is configured to adjust the size of the active surface areas of the light-sensitive elements by adjustment of electric voltages to be applied to the gate electrodes.

There are no references relied upon by the examiner.

Claims 1 through 18 stand rejected under the enablement and best mode provisions of the first paragraph of 35 U.S.C. § 112.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and reply brief, as well as the answer, for the respective positions of the appellants and the examiner.

OPINION

We reverse both rejections of all claims on appeal.

As to the enablement issue, the specification of the application must teach those skilled in the art how to make and use the claimed invention without undue experimentation. Genentech, Inc. v. Novo Nordisk A/S, 108 F.3d 1361, 1365, 42 USPQ2d 1001, 1004 (Fed. Cir.), cert. denied, 118 S.Ct. 397 (1997). Enablement is also not precluded even if some experimentation is necessary, although the amount of experimentation needed must not be

unduly excessive. Hybritech, Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1384, 231 USPQ 81, 94 (Fed. Cir. 1986), cert. denied, 480 U.S. 947 (1987).

The nature of the claimed and disclosed invention requires the respective gate electrodes 22 to be either respectively positively or negatively charged as collecting or isolating gate electrodes in order to form the separate groups of gate electrodes depicted best in Figures 2, and 3a through 3c. The examiner's basic view as to non-enablement and the lack of a best mode is that the showing in Figure 2 of the contact line 29 shows in effect only a single conductor interconnecting each of the respective gate electrodes 22. It is thus not apparent to the examiner how some of the gate electrodes receive a positive voltage while others receive a negative voltage in the same row.

For their part, appellants initially make reference to page 9, lines 23 through 26 statements in the specification as filed indicating the gate circuit 28 supplies the respective charges to the gate electrodes 22 through the contact lines 29. What this teaching actually conveys to us at this portion of the specification is that plural groups are supplied by plural lines 29 and not that any respective gate electrode or each respective gate electrode is supplied by an individual contact line 29.

However, we reverse the enablement rejection because we consider the whole invention to have been reasonably enabled to the artisan from the context of the whole disclosure itself to have formed the overall circuit shown in Figure 2 in such a manner as to

selectively group the individual gate electrodes 22 into respective groups 23 in Figure 2 and as shown in Figures 3a through 3c. The specification as a whole makes clear to the artisan that each individual gate electrode 22 must inherently be selectively addressable by the gate circuit 28 to achieve the individual, selective grouping function itself. Although this is not shown directly in the figures associated with the written specification, it is clearly indicated to the artisan in the written specification itself. Thus, we are in agreement with the view expressed by appellants at page 5 of the principal brief on appeal that “the person of ordinary skill in the art would understand each drawn line 29 to schematically represent parallel electrical contact lines or equivalent arrangements, such as well known addressing means, enabling the voltages on the gate electrodes of a row to be imposed independently of each other.” The books and publications noted and discussed at pages 5 through 7 of the principal brief on appeal support this conclusion. In view of the foregoing and in view of our conclusion that a reasonable degree but not an undue amount of experimentation would have been required of the artisan to make and use the claimed invention, we must therefore reverse the rejection of claims 1 through 18 under the enablement provision of 35 U.S.C. § 112.

The examiner has not separately set forth any line of reasoning as to the assertion that the best mode has not been set forth within the first paragraph of 35 U.S.C. § 112. The examiner's line of reasoning does not assert that the inventors knew of a better mode of carrying out the claimed invention than they disclosed in the specification and that the

inventors concealed that better mode. Cf. Engel Indus. Inc. v. Lockformer Co., 946 F.2d 1528, 1531, 20 USPQ2d 1300, 1302 (Fed. Cir. 1991). The mere absence of a detailed showing of separate conductors 29 for each gate electrode 22 in Figure 2 does not necessarily indicate appellants' intent to conceal them.

The disclosed preferred embodiment of the invention encompasses the operation of an X-ray examination apparatus for use in fluoroscopy or X-ray imaging per se. This is accomplished in accordance with the subject matter of independent claim 8 on appeal. The image sensor 8 of Figure 1 is depicted in more detail in Figure 2 and a separate embodiment utilizing a beam splitter is depicted in Figure 5. These features are respectively reflected in independent claims 1 and 7 on appeal. Thus, it is apparent that the scope of enablement of the disclosed invention has been recited in the respective independent claims in the same manner as disclosed. Since the examiner's views are not well founded as to the best mode rejection, it too is reversed.

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In view of the foregoing, the decision of the examiner rejecting claims 1 through 18 on appeal under the enablement and best mode provisions of the first paragraph of U.S.C. § 112 is reversed. 35

REVERSED

James D. Thomas)
Administrative Patent Judge)
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Anita Pellman Gross) BOARD OF PATENT
Administrative Patent Judge) APPEALS AND
) INTERFERENCES
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Lance Leonard Barry)
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Appeal No. 1998-2904
Application 08/715,256

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