

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte DONALD A. COLLINS JR., REX A. ALESHIRE,  
DOUGLAS A. BAEHL, and STEPHEN J. AMES

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Appeal No. 1997-3074  
Application No. 08/392,598<sup>1</sup>

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ON BRIEF

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Before KRASS, FLEMING, and LALL, Administrative Patent Judges.  
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1 through 7, 9 and 11. The examiner indicated the allowability of claims 8 and 10 in the answer.

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<sup>1</sup> Application for patent filed February 23, 1995.

The invention is directed to a bar code scanner and scale assembly. More particularly, the unit is made modular so that the scale and bar code scanner are connected directly without the use of cables.

Representative independent claim 1 is reproduced as follows:

1. A bar code scanner assembly, comprising:

a bar code scanner including a first printed circuit board having a connector; and

a scale including a second printed circuit board having a connector which directly couples to the connector of the first printed circuit board when the scanner is coupled to the scale.

The examiner relies on the following references:

Latimer et al. (Latimer)	5,086,879	Feb.
11, 1992		
Brauneis	5,139,100	Aug. 18,
1992		

Claims 1 through 7, 9 and 11 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner offers Latimer with regard to claims 1 through 4, 7, 9 and 11, adding Brauneis with regard to claims 5 and 6.

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

OPINION

We affirm.

Turning first to claim 1, Latimer clearly discloses a bar code scanner and a scale, both with printed circuit boards. As the examiner points out, Latimer does not show the connectors of the printed circuit boards of the scanner and scale directly coupled to each other, employing, instead, cables to make the connection. However, the examiner points out that it would have been obvious to use a direct connection rather than the cables of Latimer "in order to eliminate the losses associated with the cables" [answer-page 4]. For their part, appellants argue that the claim emphasizes the modular nature of the scanner and that modularity is not taught by Latimer.

Appellants further note that the structural arrangement of Latimer does not lend itself to placement of circuit boards of a scanner and scale together so that they may be directly connected.

We agree with the examiner's conclusion of obviousness. Latimer points out, at column 1, lines 50-63, that the prior art employed integrated scanner/scale units and that there was difficulty with such integrated units. This is why Latimer's invention is directed to making the scanner and scale separate,

non-integrated units, i.e., modular, as do appellants. However, Latimer uses cables to connect the scanner and the scale. On the one hand, we do not think it would be unreasonable to consider the claim language "directly couples" to read right on Latimer because the coupling of the two units by a cable, or cables, may certainly be considered a direct coupling, via cable. The claim does not preclude cables joining the connectors of the scanner printed circuit board and the scale printed circuit board. On the other hand, even if we read the "directly couples" language of the claim in light of the specification to mean there is a direct, connector to connector coupling, without the use of any cable(s), as appellants would have us interpret the claim, we still conclude that the claimed subject matter would have been obvious, within the meaning of 35 U.S.C. 103.

Clearly, Latimer suggests the desirability of separate scanner and scale units easily connected and disconnected to each other. Latimer, however, in the specific embodiment disclosed, chooses to use cables to interconnect the units. The skilled artisan, faced with such a teaching would clearly have known to use a direct connection rather than cables, if

desired. They are two equally obvious forms of connection, the choice of which depends on considerations well within the skill of the artisan. The use of cables would provide for a fast and simple connection with some leeway regarding the details of a specific fit between the scanner and the scale. However, the use of cables, as the examiner points out, entails possible noise along the conductors. The use of a direct connection, as envisioned by appellants, a connection well known to artisans, would help with noise and maybe make for a more compact unit, but would add an additional initial expense of designing the scanner and scale so that their printed circuit boards line up properly for the connection. The claim does not recite details of the specific connection between the scanner and the scale or how the two units are specifically designed to complement each other in making the connection. It merely calls for a direct coupling between the circuit boards of the scanner and the scale. Such a broad recitation of a direct coupling makes the claimed subject matter obvious, within the meaning of 35 U.S.C. 103, in view of the cable connection of Latimer since direct coupling vs. cables would have been alternatively obvious

choices for the skilled artisan seeking to connect the scanner to the scale.

With regard to claim 2, directed to an aperture exposing the connector of the first printed circuit board, the examiner points to Latimer's aperture between the scanner 112 and the scale subplatter 110, through which the cables are fed, and explains that this aperture is for the same purpose as appellants. Appellants argue that the claimed aperture is in the scanner housing. However, as seen in Latimer's Figure 3, the aperture therein is also in the scanner housing (through the bottom of scanner 112). Thus, appellants' argument with regard to claim 2 is not persuasive.

Turning to claim 3, the claim recites "a firmware element located on the first printed circuit board and accessible through the aperture on the housing." The examiner takes the position that while Latimer is silent as to firmware, the artisan would have known that firmware is part of such systems and that providing access panels to allow for easy access to such firmware for replacement or repair would have been obvious. Appellants response is merely to indicate that the reference fails to disclose scanner firmware that is accessible

through an aperture in a scanner housing. Such an "argument" is not persuasive since the examiner recognized that such was not disclosed by the reference. However, the examiner provided a somewhat reasonable explanation as to why it would have been obvious to provide for an access panel to such firmware and appellants have failed to rebut the obviousness argument in any way. An argument based on a reference not disclosing a feature is not sufficient when the rejection is based on why it would have been obvious to provide for such a feature.

As to claim 4, this claim calls for a scanner frame and a switch which zeroes the scale when the scanner is inserted into the frame. Appellants "argue," again, only that the reference does not teach a zeroing switch which is activated upon insertion of a scanner within the mounting frame but appellants do not argue why it would not have been obvious to have provided for such activation in view of Latimer's teaching of a zeroing switch and the examiner's reasoning that the broad recitation of claim 4 would be met by Latimer's manually operated switch which would be depressed "when the scanner is inserted into the frame" in order to zero the scale after insertion of a scanner. Thus, appellants have made no

persuasive arguments regarding the unobviousness of the limitations of claim 4.

With regard to claims 7 and 9, appellants arguments are directed to the direct coupling and modular aspect of the scanner/scale units. We find the subject matter of these claims to have been obvious under 35 U.S.C. 103 for the same reasons we stated with regard to independent claim 1, supra.

With regard to claim 11, appellants "argue" only that the cited reference fails to "teach or suggest bar code reader firmware that is accessible through an aperture in a scanner housing." However, as explained, supra, with regard to claim 3, appellants have not addressed the issue of why it would not have been obvious to provide for such an access to the firmware in view of the examiner's obviousness rationale. Accordingly, appellants' "argument" is not persuasive.

Finally, with regard to claims 5 and 6, the examiner relies on Brauneis, in combination with Latimer, wherein Brauneis teaches the claimed "weigh plate on the frame and above the scanner." The examiner sets forth a rationale [answer-page 6] as to why claims 5 and 6 would have been obvious over this combination and appellants' only response

[brief-page 16] is that the printed circuit board connectors constitute structure which is not suggested or taught by the cited references. The artisan would have recognized that, typically, connections are made to circuit boards. However, appellants have not responded to the examiner's rationale for concluding the claimed subject matter to have been obvious nor have appellants addressed the obviousness issue. Merely because the cited references may not disclose a particular element, e.g., connectors on a printed circuit board, this does not answer the question as to why it would not have been obvious to provide for such elements.

Appellants' "arguments" constitute statements that the references do not disclose what is claimed but they do not address the question of obviousness of the claimed subject matter which is the examiner's basis for the rejection of the claims. Accordingly, we find appellants' "arguments" to be unpersuasive of non-obviousness.

The examiner's decision rejecting claims 1 through 7, 9 and 11 under 35 U.S.C. 103 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

AFFIRMED

ERROL A. KRASS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
MICHAEL R. FLEMING	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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PARSHOTAM S. LALL	)	
Administrative Patent Judge	)	

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