

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(2) is not binding precedent of the Board.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. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte RONALD L. FARRINGTON,  
LARRY J. SERBOUSEK,  
ANDY A. HAUN  
and  
EARL J. TESSMER

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Appeal No. 95-4135  
Application 07/772,998<sup>1</sup>

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ON BRIEF

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

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

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<sup>1</sup> Application for patent filed October 8, 1991.

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This is an appeal from the final rejection of claims 1 through 9, 11 through 17 and 21. In an Amendment After Final<sup>2</sup> (paper number 19-1/2), claims 5, 9, 11 and 21 were amended.

The disclosed invention relates to a communication interface for circuit breakers that are connected to a power bus in a circuit breaker distribution panel. Each circuit breaker is designated by at least one coded signal that it receives via the communication bus, and each of the circuit breakers interrupts and establishes an associated current path. A decoding means associated with each of the circuit breakers determines correspondence between the coded signal and a circuit breaker. If correspondence is found, then the decoding means associated with the circuit breaker returns a response signal via a coupling means to the communication bus.

Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A communication interface system for circuit breakers which are connected to a power bus in a circuit breaker distribution panel, the system comprising:

a plurality of circuit breakers mounted within the circuit breaker distribution panel, wherein each of said circuit breakers is designated by at least one coded signal and each of

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<sup>2</sup> As indicated in the Advisory Action (paper number 21), the amendment to claims 5, 9, 11 and 21 had the effect of overcoming the indefiniteness rejection of claims 5, 9, 11, 12 and 21.

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said circuit breakers includes means for interrupting and establishing an associated current path and includes decoding means for decoding its designated coded signal and returning a response signal;

a data communication bus, arranged adjacent the plurality of circuit breakers and within the distribution panel, for carrying coded signals to and from the associated circuit breaker's decoding means; and

a plurality of coupling means, each of said coupling means located within the distribution panel and physically connected to the data communication bus and an associated circuit breaker and arranged for coupling the associated circuit breaker's decoding means to the data communication bus.

The references relied on by the examiner are:

Geyer et al. (Geyer)	3,842,249	Oct. 15, 1974
Breimesser et al. (Breimesser)	4,175,238	Nov. 20, 1979
Borona	4,308,511	Dec. 29, 1981
Wilson et al. (Wilson)	4,338,647	July 6, 1982
Miller et al. (Miller)	4,535,332	Aug. 13, 1985
Brifman et al. (Brifman)	4,556,882	Dec. 3, 1985
Hedman et al. (Hedman)	4,819,180	Apr. 4, 1989
Brodsky et al. (Brodsky)	4,918,566	Apr. 17, 1990

Claims 1 through 6 stand rejected under 35 U.S.C. § 103 as being unpatentable over Borona, Brifman, Geyer, Brodsky, Breimesser, Miller and Hedman.

Claims 7 through 9, 11 through 17 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over the references applied to claims 1 through 6 in further view of Wilson.

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

OPINION

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We will reverse the obviousness rejection of claims 1 through 9, 11 through 17 and 21 because we agree with appellants' argument throughout the brief that the applied references neither teach nor would they have suggested to the skilled artisan a decoder associated with a circuit breaker that decodes a coded signal for that circuit breaker, and that returns a response signal after decoding the coded signal.

At the outset, we note that appellants argue (Brief, page 7) that "[t]he mere fact that a large number of references are needed is a strong indication of nonobviousness." In response to this argument, we agree with the examiner (Answer, page 14) that "the number of references does not have a bearing on the propriety of the rejection; theoretically such could be infinite." See Ex parte Fine, 1927 Dec. Comm'r Pats. 84 (Comm'r Pats. 1926).

The load management circuit breaker of Borona discloses two circuit breakers 14 and 15 that can be locally controlled in response to current overloads, or that can be externally controlled via a control signal from an external power source transmitted by power line communication signals 93 (column 5, lines 11 through 14). During local control of the circuit breakers, a current overload will cause movable contacts 22 to

move away from stationary contacts 21 to break the circuit (column 4, lines 26 through 37). During external control of the circuit breakers, the external control signal to solenoid coil 49 causes the plunger 48 to retract and pull movable contacts 43 and 44 away from the stationary contacts 37 and 40, respectively, to break the circuit (column 4, lines 38 through 58). We do not agree with the examiner's conclusion (Answer, page 4) that in Borona "the circuit breaker is designated by at least one coded signal" and "the wiring provided in the arrangement exemplified by Borona is capable of carrying response signals from the circuit breaker, such as claimed, as well as coded signals to such circuit breaker." As indicated supra, nothing of the sort occurs in Borona.

With respect to Brifman, the examiner contends that "[e]ach circuit breaker has an individual electronic circuit to receive coded command signals to turn the breaker on or off, and also sense the state of the breaker contacts and upon request send back status codes, which are response signals (Abstract)" (Answer, page 5). A coded command signal is not sent to the circuit breaker, but a coded status signal is sent back to the I/O circuit. The coded status signal is decoded by decoder 23 (Figure 2 and column 6, lines 31 through 68) before storage in

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memory 25. Thus, Brifman does not send coded signals to a breaker, and a decoder is not located at the breaker to receive nonexistent coded signals.

Although Geyer may in fact disclose "that it is conventional to utilize a data bus for switching device/circuit breaker data communication, and that such devices may be uniquely addressed" (Answer, page 6), the applied references still lack the claimed decoding means associated with a circuit breaker to receive a coded signal and to send back a response signal.

Brodsky discloses bidirectional control of circuit breakers, but not in the manner set forth in the claims on appeal.

Breimesser discloses a return line (column 3, lines 12 through 28), but we agree with appellants' argument (Brief, page 11) that "the outgoing and return lines are the outgoing and return of current lines for the 'low voltage circuit'" and that "Breimesser does not teach the use of a decoding means which decodes its designated coded signal and which returns a response signal."

We agree with the examiner (Answer, page 7) that Figure 1 of Miller discloses "a system which includes a decoder, transceiver or the like (56) connected to a data bus or the like

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(58) for control of loads," and bidirectional communication via the transceiver, but we also agree with the appellants' argument (Brief, page 12) that "[t]here is no teaching whatsoever in Miller of a circuit breaker having a decoding means for decoding a designated coded signal and returning a response signal, as claimed in the present application."

The examiner's contentions (Answer, pages 8 and 9) to the contrary notwithstanding, there is no evidence in Hedman that lines 46 and 46' carry signals to and from the circuit breakers. We agree with appellants' argument (Brief, page 13) that "lines 46 and 46' represent power lines and having [sic, have] nothing to do with data communication (column 4, lines 52-59 of Hedman)."

Wilson discloses optical coupling in circuit breakers (columns 19 and 20), but not in the manner set forth in the claims on appeal.

In summary, we agree with the appellants' argument (Brief, page 16 and 17) that the applied references neither teach nor would they have suggested to the skilled artisan the claimed invention, that the examiner has resorted to hindsight to reconstruct the claimed invention, and that the obviousness rejections should be reversed.

#### DECISION

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The decision of the examiner rejecting claims 1 through  
9, 11 through 17 and 21 under 35 U.S.C. § 103 is reversed.

REVERSED

	)	
KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
ERROL A. KRASS	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
JERRY SMITH	)	
Administrative Patent Judge	)	

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