

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.25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STANLEY J. BROOKS

Appeal No.1999-0425
Application No. 08/788,969

HEARD: JANUARY 23, 2001

Before KRASS, DIXON, and BLANKENSHIP, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-28, which are all of the pending claims.

The invention is directed to a method and apparatus for testing an arcing fault detection system. More particularly, sensors coupled to line conductors in an electrical distribution network monitor the rate of change of electrical current in the line conductors and produce a signal representing the rate of change. The rate of change signal is then processed and an arcing-fault-detection signal is generated when the rate of change signal

has characteristics indicative of an arcing fault. A line interrupter interrupts the current in the line conductor in response to the detection of an arcing fault signal.

Representative independent claim 1 is reproduced as follows:

1. A system for detecting arcing faults in an electrical distribution system that includes a line conductor connected to a utility power transformer, said system comprising:

a current transformer coupled to said line conductor for monitoring the rate of change of electrical current in the line conductor and producing a signal representing the rate of change,

means for generating an arcing-fault-detection signal in response to said rate-of-change signal,

a test line coupled to said current transformer in the same manner as said line conductor for subjecting said transformer to a test signal simulating a line current produced by an arcing fault, and

a signal generator connected to said test line for producing said test signal.

The examiner relies on the following references:

Pardue et al. (Pardue)	4,833,564	May 23, 1989
MacKenzie et al. (MacKenzie)	5,459,630	Oct. 17, 1995

Claims 1-28 stand rejected under 35 U.S.C. 103. As evidence of obviousness, the examiner cites MacKenzie and Pardue.

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

OPINION

At the outset, we note that the specific rejection before us is not clear. At page 3 of the answer, the examiner states that "Claims 1-28 are held rejected under 35 USC 103 as

obvious over the teachings of the MacKenzie and Pardue references, as explained in paper 10.”

First, this statement of rejection does not make it clear whether the rejection is based on some combination of MacKenzie and Pardue or on either one of these references, taken alone. The response to appellant’s arguments, appearing on pages 3-5 of the answer, would appear to indicate that the examiner views either one of the references, by itself, as sufficient to make the instant claimed subject matter obvious, within the meaning of 35 U.S.C. 103. This appears so because, at page 4 of the answer, the examiner sets forth four separate paragraphs stating that “Both references show...” The answer does not explain, in any detail, how the disclosure of each reference corresponds to what is claimed. The examiner merely states, in conclusion, at page 5 of the answer, that “In summary, all of applicant’s improvements are part of the prior art.”

Moreover, while the examiner refers us to “paper 10” for an explanation of the rejection, reference to this paper leads us further back to “the rejection of paper 7.” Reference to “paper 7” finds that the only statements regarding the references state, in toto,

The concept of the invention appears to be disclosed in the MacKenzie... reference...Both capacitive spike generation and impedance grounding are disclosed...The Pardue reference also shows the monitoring turn of the claims in similar role. Pardue discloses the additional feature of using the monitoring current to calibrate the breaker sensitivity threshold.

Initially, we note that MPEP 1208 permits the examiner to incorporate in the answer the statement of the grounds of rejection merely by reference to the final rejection or *a single other action* on which it is based. The examiner is clearly in violation of this section of the manual by incorporating several actions and, even then, has never referred

to a single paper that lays out any cogent rationale for the rejection. Moreover, it is still not clear from the record whether the claims are rejected over a combination of references or over each reference individually.

While we clearly have cause, in the instant case, to remand this application to the examiner for further explanation, this application has been pending now for four years; it has been two and one half years since appellant filed the brief and we will not inconvenience appellant any further with another delay. Moreover, based on the rather abbreviated actions by the examiner throughout this prosecution and on the examiner's failure to clearly state the rejection and the rationale therefore, although having ample opportunity to do so, we doubt that a remand would result in a more detailed statement of the rejection and an explanation thereof.

Our review of the references indicates that Pardue is not even directed to a system for detecting "arcing faults," as claimed, but rather to a ground fault interrupter system. Therefore, there would appear to be no "rate of change of electrical current in the line conductor" to be monitored, as required by independent claim 1. Rather, a ground fault interrupter system, such as the one disclosed by Pardue, would be interested only in monitoring the total current so that if the amount of current returning to the source is less than that transmitted, it is known that there is a leakage, and hence a ground fault, somewhere in the system. With regard to MacKenzie, the examiner has failed to, at least, indicate where in that reference is a "test line coupled to said current transformer in the same manner as said line conductor for subjecting said transformer to a test signal simulating a line current produced by an arcing fault."

Accordingly, in view of the examiner's clear failure to set forth a prima facie case of obviousness with regard to the instant claimed subject matter, we will not sustain the rejection of claims 1-28 under 35 U.S.C. 103.

The examiner's decision is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOSEPH L. DIXON)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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