

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLIVER STOXEN
and MARTIN MEHLERT

Appeal No. 99-0047
Application 08/574,792¹

ON BRIEF

Before ABRAMS, McQUADE and CRAWFORD, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Oliver Stoxen et al. appeal from the final rejection of claims 1 through 13, all of the claims pending in the application. We reverse.

The invention relates to a handrail for a passenger

¹ Application for patent filed December 19, 1995.

conveyor such as an escalator, and to a method and device for monitoring the structural integrity of the handrail. Claims 1, 8 and 10, the three independent claims on appeal, are illustrative and read as follows:

1. A handrail monitoring device for a handrail, the handrail being driven through a closed loop by a drive machine, the monitoring device including:

one or more conductors extending through the handrail;

means for inducing an electrical current in the one or more conductors;

and

means to monitor the induced current.

8. A handrail for a passenger conveyor, the handrail defining a continuous loop, the handrail including one or more conductors that extend longitudinally through the handrail to form an electrically closed, continuous loop, such that an electrical current may be induced in the one or more conductors.

10. A method to monitor a passenger conveyor handrail, the handrail including one or more conductors extending longitudinally through the handrail to form an electrically closed loop, the method including the steps of:

inducing a current in the one or more conductors;

measuring the induced current;

comparing the measured current to a predetermined level of current; and

generating a signal if the measured current is less than

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the predetermined level of current.

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The references relied upon by the examiner as evidence of obviousness are:

Buckeridge et al. (Buckeridge) 1953	2,649,955	Aug. 25,
Ratz et al. (Ratz) 1974 Duffy 12, 1975	3,834,524 3,899,071	Sep. 10, Aug.
Kuraki et al., Japanese Patent 1986 Document (Kuraki) ²	61-114916	Jun. 2,
Yasuhara, Japanese Patent 1991 Document ²	3-98990	Apr. 24,
Kobayashi, Japanese Patent 1993 Document ²	5-246676	Sep. 24,

Claims 1 through 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kobayashi or Yasuhara in view of Kuraki, Buckeridge, Duffy or Ratz.

Kobayashi and Yasuhara, the examiner's alternative primary references, disclose methods and devices for monitoring the speed of handrails used in escalators and like passenger conveyors. The handrails include spaced magnetic or metallic elements (16 in Kobayashi and 30 in Yasuhara) which

²An English language translation of this reference, prepared by or on behalf of the Patent and Trademark Office, is appended hereto.

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interact with stationary sensors to allow the handrail speed
to be determined. Neither of

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these references meets the limitations in independent claims 1 and 10 relating to the inducement and monitoring/measurement of an electric current in a handrail conductor or the limitation in claim 8 requiring the handrail conductor(s) to form an electrically closed continuous loop such that an electrical current may be induced therein. The examiner's reliance on Kuraki, Buckeridge, Duffy or Ratz to cure these deficiencies is not well founded.

Duffy and Ratz relate to endless conveyor belts having closed loop current conductors which are monitored to detect damage to the belt. Kuraki discloses a belt conveyor containing a steel cord which indicates damage via changes in inductance. Buckeridge pertains to a conveyor belt having conductors therein for transmitting personnel-generated control signals to a control box.

According to the examiner, "[i]t would have been obvious that the belt embedded field generating elements 16 of Kobayashi or 30 of Yasuhara could be closed looped elements like in Kuraki, 27 of Buckeridge et al. or 12 of Duffy or 3-6 of Ratz" (final rejection, page 2). As pointed out by the appellants, however,

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there is nothing in the combined teachings of the applied references which would have suggested these combinations. Indeed, since the proposed modifications of Kobayashi and Yasuhara would undermine their stated objectives of monitoring handrail speed, it would be fair to say that the combined teachings of the references would have discouraged such modifications. The only suggestion for combining the applied references so as to arrive at the subject matter recited in independent claims 1, 8 and 10 stems from hindsight knowledge impermissibly derived from the appellants' disclosure.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of claims 1, 8 and 10, or of claims 2 through 7, 9 and 11 through 13 which depend therefrom.

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The decision of the examiner is reversed.

REVERSED

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NEAL E. ABRAMS))
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
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