

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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 JEAN-PIERRE R. THIERRY

Appeal No. 1998-1079
Application No. 08/572,166

HEARD: OCTOBER 11, 2000

Before THOMAS, KRASS, and GROSS, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-8. All of the claims pending in the application.

The invention is directed to shielding for a bundle of electrical conductors. More particularly, the invention seeks to remedy the effects of abrasive actions by metal electromagnetic protection sheaths around conductors.

Independent claim 1 is reproduced as follows:

1. An assembly comprising:

a multibranch bundle of electrical conductors;

an electromagnetic shielding system provided on the multibranch bundle and comprising a network of metal sheath elements surrounding said electrical conductors and interconnected with one another to provide an electrical continuity of said electromagnetic shielding system; and

protecting means, comprising a plurality of protective elements, for protecting the multibranch bundle against frictional wear caused by said metal sheath elements;

wherein said metal sheath elements and said protective elements comprise braid elements formed directly on said multibranch bundle, said braid elements of said metal sheath elements comprising wires, and said braid elements of said protective elements comprising filaments of a wear-resistant material.

The examiner relies on the following references:

Sawyer	319,326	Jun. 2, 1885
Kurzböck	4,640,178	Feb. 3, 1987
Sato	5,012,045	Apr. 30, 1991
Clouet et al. (Clouet)	5,378,853	Jan. 3, 1995
		(filed Jan. 27, 1993)

Claims 1-8 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner cites Clouet, Sawyer and Kurzböck, with regard to claims 1-7, adding Sato with regard to claim 8.

Appeal No. 1998-1079
Application No. 08/572,166

Appeal No. 1998-1079
Application No. 08/572,166

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

OPINION

We reverse.

The examiner cites Clouet as disclosing a multibranching bundle of electrical conductors with electromagnetic shielding, and as disclosing a network of metal sheath elements surrounding the conductors and interconnected with each other to provide electrical continuity. The examiner further alleges that Clouet discloses the metal sheath as a braided element comprising wires. However, the examiner admits that Clouet does not disclose the claimed protective sheath which is a braid of wear-resistant filaments. However, citing Sawyer's disclosure of a sheathing system alternatively comprising a braided metal shield and a braided insulating sheath, the examiner concludes that it would have been obvious to modify Clouet by using a braided insulating sheath in between the metal braided shield and the conductors or on the external surface of the metal braided shield to further support the bundle. Additionally, the examiner cites Kurzböck as disclosing a rope comprising filaments, and the examiner

Appeal No. 1998-1079
Application No. 08/572,166

holds that it would have been obvious to use wear-resisting
synthetic

Appeal No. 1998-1079
Application No. 08/572,166

elements for the braided insulating sheath of Clouet, as modified, in order to provide a long life performance to the insulating sheath as taught by Kurzböck.

Appellant argues that Clouet is concerned with the electrical continuity of the metal sheath elements and does not suggest anything about a "protecting means," as claimed. As for the examiner's reliance on Sawyer for the "protecting means," appellant contends that the braided elements B and D of Sawyer, made of soft material such as cotton, India-rubber and gutta-percha, are nothing more than insulators and cannot act as "protecting means." Appellant further argues that Sawyer does not suggest an electromagnetic shielding system comprising a network of metal sheath elements, as required by claim 1. Still further, appellant contends that Sawyer teaches nothing about a problem with abrasion caused by an electromagnetic shielding system and so there would have been no reason to add a protective element to Clouet's bundle of conductors. With regard to Kurzböck, appellant asserts that this reference is directed to a rope and not an electrical conductor and that this reference fails to teach a need to protect the rope against frictional wear caused by one of its

Appeal No. 1998-1079
Application No. 08/572,166

own components or a need to protect an external object against abrasive action caused by the rope.

Even though the applied prior art does not mention the protection against frictional wear which is recited in the instant claims, we agree with the examiner that if the prior art is capable of performing the intended use, then such claim language is met. Thus, appellant's argument that Sawyer's braided elements B and D are soft materials is not persuasive since such materials do offer some protection, albeit not the same amount of protection envisioned by appellant, against frictional wear of the conductors. Merely because the braided elements B and D of Sawyer are disclosed as insulating coverings does not preclude their additional function as a "protecting means."

The problem we have with the instant rejection goes more to the motivation for combining the references. We find nothing, other than impermissible hindsight gleaned from appellant's disclosure, which would have led the artisan to apply the insulating coverings of Sawyer to Clouet in a manner so as to use a braided insulating sheath between the metal braided shield and the conductors, or on the external surface

Appeal No. 1998-1079
Application No. 08/572,166

of the metal braided shield, of Clouet.

Moreover, even assuming, arguendo, one would have combined Clouet and Sawyer in the manner set forth by the examiner, we find no reason for the artisan to have looked to Kurzböck for filaments of a wear-resistant material to be used as a protective element in the Clouet/Sawyer combination. Kurzböck is directed to ropes and has absolutely nothing to do with the electrical conductor art to which Clouet, Sawyer and the instant invention are directed. As indicated by appellant, at page 4 of the principal brief, Kurzböck "fails to teach or suggest a need to protect the rope against frictional wear caused by one of its own components or a need to protect an external object against abrasive action caused by the rope." The use of any teaching by Kurzböck in the electrical conductor arts of Clouet and Sawyer could only have been justified through impermissible hindsight.

Since we find no reason for the skilled artisan to have combined the applied references in any manner which would have resulted in the instant claimed invention, we will not sustain the rejection of claims 1-7 under 35 U.S.C. § 103.

We also will not sustain the rejection of claim 8 under

Appeal No. 1998-1079
Application No. 08/572,166

35 U.S.C. § 103 because the additional reference to Sato does nothing to provide for the deficiencies noted supra with regard to Clouet, Sawyer and Kurzböck.

Appeal No. 1998-1079
Application No. 08/572,166

The examiner's decision rejecting claims 1-8 under 35
U.S.C. § 103 is reversed.

REVERSED

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JAMES D. THOMAS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
ERROL A. KRASS))
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
ANITA PELLMAN GROSS))
Administrative Patent Judge)	

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Appeal No. 1998-1079
Application No. 08/572,166

James E. Ledbetter, Esq.
STEVENS, DAVIS, MILLER & MOSHER, L.L.P.
1615 L. Street, N.W.
Suite 850
P.O. Box 34387
Washington, DC 20043-4387