

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte DANIEL PRUDHON

---

Appeal No. 2000-2146  
Application No. 09/197,513<sup>1</sup>

---

HEARD: August 14, 2002

---

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

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1, 2, 4, 6 and 7, which are all of the claims pending in this application.

We reverse and enter a new ground of rejection under 37 CFR § 1.196(b).

---

<sup>1</sup> Application for patent filed November 23, 1998, which is a continuation of Application No. 08/713,700, filed September 13, 1996, now U.S. Patent No. 5,952,615, which claims the foreign filing priority benefit under 35 U.S.C. § 119 of French Application No. 95 10844, filed September 15, 1995.

BACKGROUND

Appellant's invention is directed to a telecommunication cable comprising a plurality of individually insulated conductor pairs with electrical shielding around each pair (specification, page 3). The electrical shield includes a central rod with radial fins separating the conductor pairs from each other and partially shielding each pair (specification, page 4). A peripheral shield completes the shielding of each conductor pair by surrounding the rod and the set of conductor pairs separated by the fins (id.)

Representative independent claim 1 is reproduced as follows:

1. A multiple pair cable with individually shielded pairs, having a circular cross-section, comprising:

a plurality of pairs of insulated conductors; and

electrical shields surrounding each of said pairs of insulated conductors,

wherein said electrical shields include a central rod with radial fins separating said pairs of insulated conductors from each other and partially shielding said pairs of insulated conductors, and a peripheral shield surrounding said rod and said pairs of insulated conductors being separated from each other for completing the shielding of each of said pairs of insulated conductors.

The Examiner relies on the following references in rejecting the claims:

Guilleaume

483,285

Sep. 27, 1892

Appeal No. 2000-2146  
Application No. 09/197,513

Simons et al.	3,911,200	Oct. 7, 1975
Tessier et al. (Tessier)	5,132,488	Jul. 21, 1992
Aladenize et al. (Aladenize)	5,416,155	May 16, 1995

Claims 1, 2, 6 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Guilleaume in view of Tessier and Simons.<sup>2</sup>

Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Guilleaume in view of Tessier and Simons and further in view of Aladenize.

Rather than reiterate the viewpoints of the Examiner and Appellant, we make reference to the answer (Paper No. 10, mailed December 22, 1999) for the Examiner's reasoning, the appeal brief (Paper No. 9, filed November 8, 1999) and the reply brief (Paper No. 12, filed December 22, 2000) for Appellant's arguments thereagainst.

#### OPINION

With respect to the rejection of claim 1, Appellant points out that Guilleaume uses bare conductors individually separated by an insulating strip or finned member instead of a pair of insulated conductors on each side of the strip or within the grooves of the finned member (brief, pages 9 & 10). Appellant

---

<sup>2</sup> The Examiner incorrectly includes claim 5 in the statement of rejection (answer, page 3), whereas claim 5 has been canceled at the time of filing the Request for Continued Application, filed November 23, 1998.

Appeal No. 2000-2146  
Application No. 09/197,513

argues that one of ordinary skill in the art would not have substituted each single bare conductor in Guilleaume with two insulated conductors based on the teachings of Tessier (brief, page 11). Appellant further asserts that "[s]uch a modification would result in insulated conductors being placed within grooves of the insulating strip for being further insulated from each other, resulting in a redundant, double-insulating solid structure" (oral hearing, brief, page 13 and reply brief, page 3). Appellant recognizes that Simons discloses partially shielding compartments formed of fins (brief, page 14), and Guilleaume teaches a metallic covering as the peripheral protection (brief, page 16). However, Appellant argues that one of ordinary of skill in the art would not have found any suggestion or motivation to combine the references to form the claimed two-part shielding structure for communication cables (oral hearing and brief, page 16).

The focus of the Examiner's arguments is that substituting twisted pairs of insulated conductors for bare conductors would not result in redundancy or any change in the main purpose of Guilleaume since both kinds of conductors can be used for transmitting signals (answer, page 7). The Examiner also asserts that inserting a metal tape in the insulative rod of Guilleaume

Appeal No. 2000-2146  
Application No. 09/197,513

would not change the principal operation of the insulator and in fact, provides shielding between the pair of conductors (id.).

The initial burden of establishing reasons for unpatentability rests on the examiner. In re Oetiker, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Where, as here, a conclusion of obviousness is premised upon a combination of references, the examiner must identify a reason, suggestion, or motivation which would have led an inventor to combine those references. Pro-Mold & Tool Co. V. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629, (Fed. Cir. 1996). However, "the Board must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the agency's conclusion." In re Lee, 277 F.3d 1338, 1344, 61 USPQ2d 1430, 1434 (Fed. Cir. 2002).

A review of Guilleaume reveals that the reference relates to insulating bare electric cables or conductors that are used in telephonic transmission (lines 7-15). A strip of insulating material, such as paper, separates a pair of bare conductors and creates two spiral grooves to hold the conductors once the whole assembly is twisted together (lines 21-43). A number of such insulated conductors are grouped together to form a cable, as

shown in figure 6. However, Guilleaume provides no shielding structure between the pairs of insulated conductors in the grouped strands of conductors. Additionally, we find no teaching in Guilleaume about shielding each of the pairs of insulated conductors using a combination of a central rod with fins and a peripheral shield, as recited in Appellant's claim 1.

A review of Tessier shows that the reference is concerned with reducing capacitance unbalance and cross talk among pairs of twisted conductors (col. 1, lines 42-45). Tessier merely teaches a plurality of conductor pairs that are grouped together and spacers that hold the pairs of conductors spaced apart from one another (col. 1 line 67 through col. 2, line 10). The spacers are integrally formed with a jacket that surrounds the grouped pairs of conductors (col. 2, lines 31-39). Based on our findings with regard to Tessier, we agree with Appellant that Tessier provides no teaching or suggestion for substituting each bare conductor of Guilleaume with a pair of conductors.

Simons, on the other hand, teaches a cable housing with an encapsulated longitudinal tape for separating and shielding longitudinal sections of a multiconductor cable (col. 1, lines 24-44). A metal foil is laminated with plastic films and folded upon itself to form the longitudinal parallel compartments for

Appeal No. 2000-2146  
Application No. 09/197,513

shielding of insulated wires within the cable (col. 3, lines 16-37). The cable further includes an outer jacket or sheath made of insulating material that surrounds the peripheral side of each compartment (col. 3, lines 42-46). Thus, similar to Tessier, Simons includes no teaching or suggestion for modifying the electric cable of Guilleaume to have the claimed two-part shielding of insulated pairs of conductors.

Based on our findings above, we remain unpersuaded by the Examiner's argument that the use of pairs of insulated conductors, as taught by Tessier, would not have changed the main purpose of Guilleaume. The insulating strip or rod of Guilleaume separates and insulates individual bare conductors from each other. Additionally, while Tessier shows spacers for separating conductor pairs and Simons teaches shielding compartments for a cable, their combination with Guilleaume fails to teach or suggest a two-part shielding structure that includes a central rod with radial fins separating pairs of insulated conductors and a peripheral shield surrounding the rod and the pairs of conductors, as recited in claim 1. In view of the analysis above, we find that the Examiner has failed to show the necessary motivation to modify Guilleaume as suggested by the Examiner. Accordingly, the 35 U.S.C. § 103 rejection of claims 1, 2, 6 and

Appeal No. 2000-2146  
Application No. 09/197,513

7 over Guillaume in view of Tessier and Simons cannot be sustained.

We note that the Examiner relies on Aladenize in combination with Guillaume, Tessier and Simons to reject claim 4 under 35 U.S.C. § 103(a). Although Aladenize describes the use of a semiconductive screening formed of a polymer matrix in electrical cables for stabilizing the field at the insulator-conductor interface (col. 3, lines 11-14 and lines 48-56), nothing in the reference is directed to a two-part shielding structure for shielding insulated conductor pairs. Assuming, arguendo, that it would have been obvious to combine the semiconductor polymer of Aladenize with the teachings of Guillaume, Tessier and Simons as held by the Examiner, Aladenize does not overcome the deficiencies in the rejection of base claim 1 discussed above. Accordingly, we do not sustain the 35 U.S.C. § 103 rejection of claim 4 over Guillaume, Tessier and Simons in view of Aladenize.

#### CONCLUSION

In view of the foregoing, the decision of the Examiner rejecting claims 1, 2, 4, 6 and 7 under 35 U.S.C. § 103 is reversed.

We make the following new ground of rejection for claim 1 under the judicially created doctrine of obviousness-type double

Appeal No. 2000-2146  
Application No. 09/197,513

patenting over Prudhon (issued on the parent of the present application)<sup>3</sup> pursuant to 37 CFR § 1.196(b). We only consider independent claim 1 but encourage the Examiner to evaluate other appealed claims for possible rejection under obviousness-type double patenting over Prudhon alone or in combination with other prior art.

Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting over Prudhon. Claim 1 of Prudhon (the only patented claim) reads as follows:

1. A cable having a circular cross-section and including a plurality of individually insulated conductor pairs, said cable comprising:

an electrical shield surrounding each of said conductor pairs;

said electrical shield including central rod with radial fins separating said conductor pairs from each other for partially shielding each of said conductor pairs, and a peripheral shield surrounding said rod and all of said conductor pairs between said fins for completing the shielding of each of said conductor pairs,

wherein said rod comprises an insulative material member of constant cross-section with an exterior metallization that is continuous from one fin to the next.

---

<sup>3</sup> Prudhon 5,952,615 Sep. 14, 1999  
(a copy of which is attached to this decision)

Appeal No. 2000-2146  
Application No. 09/197,513

Claim 1 of Prudhon recites a cable having a circular cross-section that includes a plurality of insulated conductor pairs and electrical shields surrounding each of the pairs of conductors, as recited in the appealed claim 1. The patented claim 1 further recites a central rod with radial fins and the peripheral shield surrounding the rod and the pairs of conductors, as also recited in the appealed claim 1, that separate the pairs of conductors and complete the shielding of each pair. The patented claim 1 also requires that the central rod comprise an insulative material covered with an exterior metallization. However, the appealed claim 1 recites no specific material or configuration for the central rod, which warrants the use of any shielding configuration for the central rod. Different materials and combinations of layers may be used for the central rod as confirmed by Appellant's specification stating that the effectiveness of the shielding fins between the conductor pairs is "proportional to the magnitude of the effect of the pairs on each other" (specification, page 6). Therefore, one of ordinary skill in the art would have concluded that the invention recited in the appealed claim 1 is an obvious variation of the invention defined in the patented claim 1.

Appeal No. 2000-2146  
Application No. 09/197,513

As discussed above, the appealed claim 1 more broadly recites the configuration of the central rod and the radial fins which are merely an obvious variation of the invention recited in claim 1 of Prudhon. Accordingly, claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting over Prudhon.

In addition to reversing the Examiner's decision rejecting the claims, this decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

Appeal No. 2000-2146  
Application No. 09/197,513

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

REVERSED  
37 CFR § 1.196(b)

ERROL A. KRASS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
PARSHOTAM S. LALL	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
MAHSHID D. SAADAT	)	
Administrative Patent Judge	)	

MDS/ki

Appeal No. 2000-2146  
Application No. 09/197,513

Sughrue, Mion, Zinn,  
Macpeak & Seas  
2100 Pennsylvania Avenue, NW  
Washington, DC 20037-3202