Paper No. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SCOTT W. HARDEN and DAVID R. HARDEN

Appeal No. 1997-4200
Application No. 08/428,790

HEARD: January 24, 2001

Before OWENS, LIEBERMAN and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 8 and 15.[1] Claims 9 through 14, which are the only other claims remaining in the application, stand withdrawn from further

[1] Although appealed claim 15 was omitted from the statement of rejection in the final Office action (Paper 14), the appellants and the examiner agree that the claim should be treated as finally rejected. (Appeal Brief, page 2; Examiner's Answer, page 2.)

consideration pursuant to a restriction requirement. 37 CFR § 1.142(b) (1959).

Claim 1 is illustrative of the claims on appeal and is reproduced below:

> 1. A method for making high frequency cable of at least two electrical conductors with each conductor insulated by thermoplastic material which concentrically surrounds each respective conductor comprising:
> (a) providing a first uninsulated electrical conductor;
> (b) providing a second uninsulated electrical conductor;
> (c) moving both conductors into an extruder means which coats each conductor separately and independently with a heated thermoplastic electrical insulation material, the extruder means maintains the concentricity of each conductor with respect to the surrounding thermoplastic insulation and in a spaced relationship from the adjacent insulated conductor;
> (d) moving the conductors which have been coated with heated thermoplastic material from the extruder means and in a spaced relationship so a[s] to permit the thermoplastic material on each conductor to set independent and separate of the other conductor; and
> (e) bringing the conductors into touching contact after the thermoplastic material has set while using only residual heat from the extruding means, whereby the coated conductors are fused and joined together by the heated thermoplastic materials surrounding each conductor, the set is achieved whenever the thermoplastic retains its concentricity upon contact with adjacent

thermoplastic of the adjacent conductor while retaining tack.

The subject matter on appeal relates to a method for making high frequency cable comprising the recited steps. According to the appellants, the claimed method includes concentrically forming insulation on two separate electrical wires (conductors) and joining the insulated conductors together in a manner which maintains the concentricity of each electrical conductor with respect to the insulation. (Appeal brief, page 2.)

The examiner relies upon the following prior art references as evidence of unpatentability:

Wermine 2,204,782 Jun. 18, 1940
Bullock et al. (Bullock) 5,334,271 Aug. 02, 1994
(filed Oct. 5, 1992)

Claims 1 through 8 and 15 are rejected under 35 U.S.C. § 103 as unpatentable over Bullock in view of Wermine. (Examiner's answer, pages 4-5.)

We have reviewed the entire record, including all of the arguments and evidence presented by both the examiner and the appellants in support of their respective positions. This

review leads us to conclude that the examiner's rejection is not well founded. Accordingly, we reverse. The reasons for our determination follow.

In any rejection, whether it be based on prior art grounds or any other ground, the initial burden of presenting a prima facie case of unpatentability rests on the examiner. In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). In this case, the examiner has failed to meet the initial burden of proof.

The examiner states:

> Bullock, the primary reference, is directed to a method of making a high frequency communication cable. Bullock passes two prefabricated extrusion coated wires through a hot air oven to make the dielectric coating tacky. Bullock then touches the two coated wires to form a bonded pair. While Bullock is silent on carefully controlling the shape or concentricity of the coatings, it is well known in the art of high frequency communication cables that the concentricity of the coatings is critical to the performance of the cable. Bullock fails to show bonding the coated wires by touching them together while they are still tacky from the extrusion coating process." [Examiner's answer, p. 3.]

According to the examiner, "Wermine is used to show that it is known to bond cables together by touching them while they are

still tacky from the extrusion coating process." (Examiner's answer, page 4.) The examiner then concludes:

> It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the heat necessary for bonding the wires together by using the latent heat of extrusion, as does Wermine, because it eliminates the need for Bullock's hot air oven. [Examiner's answer, pp. 4-5.]

We disagree with the examiner's analysis. Appealed claim 1, step (c), recites: "moving both conductors into an extruder means which coats each conductor separately and independently with a heated thermoplastic electrical insulation material..." (Emphasis added.) There is no teaching, suggestion, or motivation in either of the applied prior art references to modify Bullock's process to include step (c) as recited in appealed claim 1. Although Bullock teaches that the thermoplastic insulation material **2** can be extruded onto the conductor **1** (column 4, lines 9-11), the reference is silent as to the specific method by which the insulation material is coated onto the conductor.

To account for the differences between Bullock's process and the invention as recited in the appealed claims, the examiner relies upon Wermine. But Wermine, like Bullock, does

not describe step (c) as recited in appealed claim 1. According to Wermine, "the conductors **10** and **11** are first embedded in a single mass of insulating material **17** in the space between the exit end of the guide **21** and the inlet of the die **19**..." (Underscoring added; page 2, left column, lines 27-30; Fig. 1.) Thus, contrary to the examiner's allegation (examiner's answer, page 6), Wermine does not teach "moving both conductors into an extruder means which coats each conductor separately and independently with a heated thermoplastic electrical insulation material..." (Emphasis added.) We therefore determine that the combination of Bullock and Wermine would not have resulted in the appellants' invention as recited in appealed claim 1.

For these reasons, we hold that the examiner has not made out a prima facie case of obviousness against the subject matter of appealed independent claim 1 within the meaning of 35 U.S.C. § 103. Since appealed claims 2 through 8 and 15 all depend, either directly or indirectly, from claim 1, it follows that the subject matter of these dependent claims would also not have been obvious over the applied prior art

references. In re Fine, 837 F.2d 1071, 1076, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

The decision of the examiner is reversed.

REVERSED

TERRY J. OWENS Administrative Patent Judge	)
PAUL LIEBERMAN Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
ROMULO H. DELMENDO Administrative Patent Judge	)

rhd/vsh

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