

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HOLGER LETTMANN and DEAN KAMINSKI

Appeal No. 2006-2276
Application 10/426,594

ON BRIEF

Before THOMAS, RUGGIERO, and BLANKENSHIP, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellants have appealed to the Board from the examiner's final rejection of claims 1-12.

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Representative independent claim 1 is reproduced below:

1. A flexible ribbon cable comprising:

two opposed flexible cover sheet insulators, each cover sheet insulator having an inner surface and an outer surface;

a plurality of electrical conductors arranged in parallel to one other between the inner surfaces of the cover sheet insulators, the inner surfaces of the cover sheet insulators insulating the electrical conductors from one another, wherein the cover sheet insulators and the electrical conductors insulated therein form a flexible ribbon cable segment; and

a flexible reinforcing sheet coated on the outer surface of at least one of the cover sheets of at least one section of the flexible ribbon cable segment such that the at least one section of the flexible ribbon cable segment having the reinforcing sheet is relatively more protected and has relatively less flexibility than remaining sections of the flexible ribbon cable segment, wherein the at least one section of the flexible ribbon cable segment having the reinforcing sheet and the remaining sections of the flexible ribbon cable segment have a sufficient amount of flexibility such that the entire flexible ribbon cable segment may be wounded in a spiral with portions of the at least one section of the flexible ribbon cable segment being wounded on top of one another and such that end portions of the flexible ribbon cable segment may be unwounded from the spiral.

The following references are relied on by the examiner:

Schauer 4,813,878 Mar. 21, 1989

Appellants' Own Admission of Prior Art, pages 1-2 of the Background Art Section.

Claims 1 through 12 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Schauer in view of appellants' admitted prior art.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and the reply brief for appellants' positions, and to the answer for the examiner's positions.

OPINION

For the reasons generally set forth by the examiner in the answer, as expanded upon here, we sustain the rejection of claims 1 through 12 under 35 U.S.C. § 103. Appellants present arguments only as to independent claims 1, 6 and 8 collectively and separately argue method of manufacture independent claim 10. None of the dependent claims on appeal have been argued before us. It is further noted that according to the manner in which appellants have argued the noted rejection, they have not argued against the combinability of Schauer with appellants' admitted prior within 35 U.S.C. § 103. Appellants argue, in effect, that the combination of teachings of Schauer and appellants' admitted prior art does not yield the claimed invention.

The examiner considers the prefabricated molding 12 in Schauer's figures as comprising the claimed "a flexible reinforcing sheet." Page 10 of the brief asserts that this sheet is not capable of being wound up and unwound as recited in the claims on appeal. Pages 13 through 15 of the

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answer address this argument by specifically pointing to the showings in Figure 1 of Schauer which depicts two reinforcing sheets/moldings 12. In essentially arguing only the written description in Schauer, appellants have lost sight of their own admitted prior art in their corresponding discussion at page 2 of the specification as filed.

Appellants respond to these positions of the examiner in the answer at pages 4 and 5 of the reply brief. It appears to us that the showing in Figure 1 of Schauer may essentially comprise the claimed segment with different noted portions depicted in this figure. The arguments focus, at page 4, upon the view that one section of the ribbon cable 10 in Schauer is not wound in a spiral. To the extent these arguments assert that only one section has this capability, the claim merely requires “at least one,” whereas it is clearly recognized that two sections 12 are shown in Schauer’s Figure 1 as comprising parts of the ribbon cable 10.

Furthermore, appellants’ own position at the top of page 4 of the reply brief recognizes that the two reinforcing sheets 12 are taught to have a radius of curvature of the two ends of the cable 10 and that the two reinforcing sheets 12 may extend over a greater length in the direction of the cable itself as indicated at column 4, lines 17 through 21. As such, within the teachings

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and showings in Schauer, any one of the sections or portions 12 *per se* may be wound in a spiral because of its added length.

The additional argument at page 5 of the reply brief is also misplaced. The ability of this claimed “a flexible reinforcing sheet” to be likewise wound and unwound is clearly a function of the details of the actual use of it as well as the last noted teaching regarding the variable length of Schauer’s moldings 12, analogous to the claimed “a flexible reinforcing sheet.” The reader of Schauer should not lose sight of the teaching value of column 1, lines 25 through 30, which indicates that a cable would be wound as on a bobbin and be automatically unwound and rewound under the action of a spring after the release of a pulling force. Additional related teachings are found at column 3, lines 31 through 40, indicating that the relative motion of the cable itself between fixed point 6 and variably moveable point 8 is in the manner of a spring housing of clocks. In use, the driver of a steering wheel having an associated cable arrangement 10 associated with it is further taught to be able to unwind and therefore wind up again a significant number of times the cable and its attached molding sections 12. Additionally, in one sense, appellants’ remarks at the middle of page 5 of the reply brief appear to admit that Schauer teaches the argued feature. All these comments, with

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respect to Schauer, exist notwithstanding the additional teachings beginning at the middle of appellants' admitted prior art discussion at page 2 of the specification as filed.

As to the features of independent claim 10 on appeal addressed at page 11 of the principal brief, the focus of the arguments here is related to the individual cable branches of this claim. While it is recognized as argued by appellants that Schauer does not teach dividing a segment of a ribbon cable into individual cable branches, appellants' remarks also indicate that their own admitted prior art "teaches that the individual cable branches" were known in the art.

The examiner addresses these arguments in the principal brief at pages 15 and 16 of the answer where the examiner significantly points out that "fanning (dividing cable ends) is a commonly utilized method of connecting connectors to flat ribbon cables" at the bottom of page 15 of the answer. This has not been challenged in the reply brief. The examiner's continued reliance upon the discussion, for example, at specification page 2, lines 18 through 23, of the admitted prior art is persuasive of unpatentability. Correspondingly, while appellants' responsive arguments at pages 6 and 7 of the reply brief focus only upon the teachings in Schauer, they do not even

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recognize their own admissions at the bottom of page 3 of the brief with respect to their own prior art and the examiner's emphasis of this at pages 15 and 16 of the answer.

Lastly, we note, in passing, that the nature of the subject matter actually presented in the independent claims on appeal and argued before us would appear to have been obvious to the artisan based upon appellants' admitted prior art discussion at specification page 1, line 12 through page 3, line 2. The admitted prior art had a corresponding plastic extrusion coating for protection over the individual cable branches which appears to correspond to the flexible reinforcing sheet(s). The method of manufacture recited in independent claim 10 requires that this element be laminated rather than extruded according to the admitted prior art teachings.

Appellants admit in the paragraph bridging specification pages 2 and 3 that it was known in the art that extrusion coating was rather expensive in the art. Thus, to minimize manufacturing expenses and simplify manufacturing, it would have been obvious to the artisan to have laminated such an extra coating for a protection sheet in the same manner they already admitted that the insulating cover sheets were made in the art, such as by laminating them together, as generally indicated at specification page 1, lines 14 through 19.

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In view of the foregoing, the decision of the examiner rejecting claims 1 through 12 under 35 U.S.C. § 103 is affirmed.

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

AFFIRMED

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Administrative Patent Judge)
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Joseph F. Ruggiero) BOARD OF PATENT
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