



RCE IFW

DOCKET NO. M00506.70026.US

REQUEST FOR CONTINUED EXAMINATION (RCE) TRANSMITTAL Address to: Mail Stop RCE Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	10/336,535
	Confirmation Number	9466
	Filing Date	January 3, 2003
	First Named Inventor	William Clark
	Group Art Unit	2831
	Examiner Name	Chau N. Nugyen

This is a Request for Continued Examination (RCE) under 37 C.F.R. § 1.114 of the above-identified application.
NOTE: Request for Continued Examination (RCE) practice under 37 C.F.R. § 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application.

1. Submission required under 37 C.F.R. § 1.114

a. Previously submitted

i. ☐ Consider the amendment(s)/reply under 37 C.F.R. § 1.116 previously filed on _____.
(Any unentered amendment(s) referred to above will be entered.)

ii. ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____.

iii. ☐ Other:

b. Enclosed is/are:

i. ☒ Amendment/Reply

ii. ☐ Affidavit(s)/Declaration(s)

iii. ☐ Information Disclosure Statement (IDS)

iv. ☐ Other:

2. Miscellaneous

a. ☐ Suspension of action on the above-identified application is requested under 37 C.F.R. § 1.103(c) for a period of ____ months. (Period of suspension shall not exceed 3 months) and the Fee of **\$130.00** under 37 C.F.R. § 1.17(i) is enclosed.

b. ☐ Other:

3. Fees - The RCE fee under 37 C.F.R. §1.17(e) is required by 37 C.F.R. §1.114 when the RCE is filed.

a. ☒ Enclosed is a check in the amount of \$806.00 which covers:

i. ☒ RCE fee required under 37 C.F.R. § 1.17(e)

ii. ☐ Extension of time fee (37 C.F.R. §§ 1.136 and 1.17)

iii. ☒ Additional Claim Fees

4. If the filing of this RCE necessitates an extension of time under 37 CFR §1.136(a), the applicant hereby requests such extension of time.

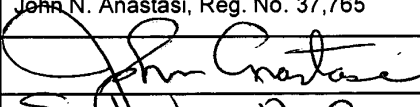
5. If there is no check enclosed, or if the amount of the enclosed check in this RCE is incorrect, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50/2762.

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6. CORRESPONDENCE ADDRESS
Customer Number: 37462

7. SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED	
NAME	John N. Anastasi, Reg. No. 37,765
SIGNATURE	
DATE	September 17, 2004
CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a) The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the <u>17th</u> day of September, 2004  Denise M. Dorahue	



Docket No.: M00506.70026.US

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Clark et al.
Serial No: 10/336,535
Confirmation No: 9466
Filed: January 3, 2003
For: MULTI-PAIR DATA CABLE WITH CONFIGURABLE
CORE FILLING AND PAIR SEPARATION

Examiner: Chau N. Nguyen
Art Unit: 2831

CERTIFICATE OF MAILING UNDER 37 C.F.R. §1.8(a)

The undersigned hereby certifies that this document is being placed in the United States mail with first-class postage attached, addressed to **Mail Stop RCE**, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the 17th day of September, 2004.


Denise M. Donahue

Mail Stop RCE
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Sir:

In response to the Final Office Action mailed June 17, 2004, please amend the above-identified application as follows. Changes to the Claims are shown by strike through (for deleted matter) and underlining (for added matter).

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks begin on page 6 of this paper.

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03 FC:2202 72.00 OP

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DAA:502762 Name/Number:10336535
FC: 9204 \$5.00 CR

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A finished communications cable comprising:
 - a plurality of twisted pairs of insulated conductors comprising a first twisted pair of insulated conductors and a second twisted pair of insulated conductors;
 - a substantially flat configurable dielectric separator disposed between the plurality of twisted pairs of conductors in the finished communications cable, that separates the first twisted pair of insulated conductors from the second twisted pair of insulated conductors; and
 - a jacket enclosing the plurality of twisted pairs of insulated conductors and the configurable dielectric separator;wherein the plurality of twisted pairs of insulated conductors and the substantially flat configurable dielectric separator are twisted about a common axis to form the finished communications cable.
2. canceled.
3. (currently amended) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is arranged to have no more than one concave surface to provide a ~~plurality of grooves~~ groove extending along a longitudinal length of the communications cable.
4. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is arranged within the jacket to provide at least two grooves, at least one twisted pair of insulated conductors being disposed within each of the at least two grooves.

5. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator includes a foamed polymer.
6. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator includes a woven fiberglass tape.
7. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator includes a flame-retardant, low-dielectric constant, foamed polymer tape.
8. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator includes a foamed fluorinated ethylene propylene material.
9. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is a flame-retardant, foamed polymer tape.
10. (original) The communications cable as claimed in claim 1, further comprising a central core filling material disposed in a core of the communications cable between the first and second twisted pairs of insulated conductors.
11. (original) The communications cable as claimed in claim 10, wherein the central core filling is made of a same material as the substantially flat configurable dielectric separator.
12. canceled
13. (original) The communications cable as claimed in claim 1, further comprising a conductive shield substantially surrounding the plurality of twisted pairs of insulated conductors and the substantially flat configurable dielectric separator.

14. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is arranged so as to separate each twisted pair of insulated conductors from every other twisted pair of insulated conductors.

15 (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator comprises a conductive layer and is arranged so that the conductive layer faces each of the plurality of twisted pairs of insulated conductors.

16. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator comprises an aluminum/mylar tape, an aluminum layer of the aluminum/mylar tape facing the plurality of twisted pairs of insulated conductors.

17. (original) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is arranged to provide a sufficient spacing between the first twisted pair of insulated conductors and the second twisted pair of insulated conductors so as to provide a desired crosstalk isolation between the first twisted pair of insulated conductors and the second twisted pair of insulated conductors.

18. (previously presented) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator is arranged so as to prevent the first twisted pair from contacting the jacket.

19. (previously presented) The communications cable as claimed in claim 1, wherein the substantially flat configurable dielectric separator has a concave shape.

20. (previously presented) The communication cable as claimed in claim 19, wherein the substantially flat configurable dielectric separator does not extend more than 180 around any one of the plurality of twisted pairs of insulated conductors.

21. (currently amended) A An unshielded communications cable comprising:
a plurality of twisted pairs of insulated conductors comprising a first twisted pair of insulated conductors and a second twisted pair of insulated conductors;
a substantially flat configurable dielectric separator that consists of non-conductive, dielectric materials disposed between the plurality of twisted pairs of conductors that separates the first twisted pair of insulated conductors from the second twisted pair of insulated conductors; and
a jacket enclosing the plurality of twisted pairs of insulated conductors and the configurable dielectric separator;
wherein the substantially flat configurable dielectric separator includes a foamed polymer.
22. (previously presented) The communications cable as claimed in claim 21, wherein the substantially flat configurable dielectric separator includes a flame-retardant, low-dielectric constant, foamed polymer tape.
23. (previously presented) The communications cable as claimed in claim 21, wherein the substantially flat configurable dielectric separator includes a foamed fluorinated ethylene propylene material.
24. (previously presented) The communications cable as claimed in claim 21, wherein the substantially flat configurable dielectric separator is a flame-retardant, foamed polymer tape.

REMARKS

Claims 1, 3-11 and 13-24 were previously pending in this application. By this amendment, Applicants have amended claims 1, 3 and 21. No claims have been added or canceled. As a result claims 1, 3-11 and 13-24 are pending for examination with claims 1, 21 and 25 being independent claims. No new matter has been added. Applicants note with appreciation that the Examiner has indicated that claim 18 contains allowable subject matter.

Rejections Under 35 U.S.C. §103

Claims 1, 3, 4 14-17 and 19-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,969,295 to Boucino et al. (hereinafter Boucino) in view of U.S. Patent No. 3,911,200 to Simons et al. (hereinafter Simons). Applicants have amended the independent claims to further distinguish over the prior art of record and respectfully traverse this rejection in part.

As discussed in Applicants' previous response, filed May 14, 2004, Boucino discloses a twisted pair cable comprising several (e.g., four) twisted pairs of insulated conductors separated from one another by a spacer. The spacer includes a longitudinally extending center portion and a plurality of wall portions radiating from the center portion, thereby defining a plurality of compartments within the cable jacket, each twisted pair being disposed in one of the compartments (col. 1, lines 4-65; see Fig. 2). Simon discloses a multi-finned shielding tape formed of a metal and plastic laminate that can be disposed between insulated conductors in a cable to shield the conductors from one another.

The Examiner asserts that it would have been obvious to use the separator as taught by Simons for the separator of Boucino "since the separator of Simons not only separates the pairs, but also provides a shielding for the pairs." Applicants respectfully disagree, and assert that the proposed combination of Boucino and Simons suggested in the Office Action is improper for lack of motivation to combine the references, as discussed in Applicants' previous response. Furthermore, even if one were to combine Boucino and Simons as suggested in the Office Action, the combination fails to teach or suggest Applicants' claimed invention.

In particular, neither Boucino nor Simons discloses a “substantially flat configurable dielectric separator” as is recited in Applicants’ claim 1. Rather, Boucino and Simons both disclose a multifinned separator, not a substantially flat separator.

The Examiner, in the Office Action, asserts that Simons discloses a “substantially flat configurable dielectric separator.” Applicants respectfully disagree. Applicants have also amended claim 1 to recite “a substantially flat configurable dielectric separator disposed between the plurality of twisted pairs of conductors in the finished communications cable, that separates the first twisted pair of insulated conductors from the second twisted pair of insulated conductors.” Although the separator disclosed in Simons is formed as a tape laminate, the separator is not substantially flat when it is disposed inside the cable jacket, as shown in Figs. 11 and 12 of Simons. Simons states that “as the tape is fed into the cabler it opens as in Fig. 7 to a system having four fins forming four longitudinal parallel shielding compartments (col. 3, lines 22-24). In alleging that Simons discloses a substantially flat separator, the Examiner points to Simons’ FIGS. 1-6, and 8-10 which illustrate the separator before it is inserted into a cable. Once Simons’ separator is inside the cable, it is not substantially flat, but has been unfolded or opened to have a multifinned structure, as discussed above. By contrast, Applicants’ claim 1, as amended, specifically recites that the configurable dielectric separator is substantially flat inside the finished cable. Therefore, even if one were to use the separator of Simons for the separator of Boucino, one does not arrive at a cable comprising a substantially flat separator disposed between the plurality of twisted pairs of conductors in the finished cable that separates the first twisted pair of insulated conductors from the second twisted pair of insulated conductor,” as is recited in Applicants’ claim 1, as amended. Rather, the cable resulting from the combination of Simons and Boucino includes a finned separator positioned between the twisted pairs.

Thus, as discussed above, neither Boucino nor Simon, whether taken alone or in combination, disclose or suggest each and every limitation recited in claim 1. Therefore, claim 1 is patentable over the art of record. Accordingly, withdrawal of the rejection of claim 1 is respectfully requested.

Each of dependent claims 3, 4, 14-17, 19 and 20 depends from claim 1 and is therefore allowable for at least the same reasons as claim 1.

Applicants' independent claim 21, as amended, recites "An unshielded communications cable comprising...a substantially flat configurable dielectric separator that consists of non-conductive, dielectric materials disposed between the plurality of twisted pairs of conductors." Such a cable and separator is not disclosed nor suggested by Simons or Boucino, whether taken alone or in combination.

As discussed above, neither Boucino nor Simons discloses a substantially flat dielectric separator. In addition, even if the Examiner continues to believe that the multifinned separator disclosed in Simons is "substantially flat," Simons's separator is disclosed to be a "shielding tape formed of a metal and plastic laminate." Thus, Simons' separator does not "consist of non-conductive, dielectric materials" as is recited in Applicants' claim 21, as amended, because Simons' separator includes one or more metal (i.e., conductive) layers. Therefore, neither Simons nor Boucino, whether taken alone or in combination, disclose or suggest each and every limitation recited in Applicants' claim 21, as amended. Therefore, claim 21 is patentable over the art of record. Accordingly, withdrawal of the rejection of claim 21 is respectfully requested.

Claims 5 and 7-9 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Boucino in view of Simons and in further view of C&M Corporation (C&M). Applicants respectfully traverse this rejection.

Applicants do not agree that the proposed combination of Boucino, Simons and C&M is proper. However, even if one were to combine the references as suggested in the Office Action, the combination does not anticipate or render obvious Applicants' claims.

Each of dependent claims 5, 7-9 and 22-24 depends from one of independent claims 1 and 21. As discussed above, the proposed combination of Boucino and Simons does not disclose or suggest a cable comprising "a substantially flat configurable dielectric separator disposed between the plurality of twisted pairs of conductors in the finished cable," as is recited in Applicants' claim 1. C&M fails to cure the deficiencies of Boucino and Simons with respect to claim 1 because C&M also fails to disclose or suggest a cable comprising "a substantially flat configurable dielectric separator disposed between the plurality of twisted pairs of conductors in the finished cable." In addition, as also discussed above, the proposed combination of Simons and Boucino does not disclose or suggest "an unshielded communications cable comprising...a substantially flat configurable dielectric separator that

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consists of non-conductive, dielectric materials,” as is recited in Applicants’ claim 21, as amended. C&M also fails to cure the deficiencies of Boucino and Simons with respect to claim 21 because C&M also fails to disclose or suggest “an unshielded communications cable comprising...a substantially flat configurable dielectric separator that consists of non-conductive, dielectric materials.” Therefore, even if one were to combine Boucino, Simons and C&M, as suggested in the Office Action, the proposed combination does not disclose or suggest each and every limitation recited in Applicants’ independent claims 1 and 21. Therefore, the art of record, whether taken alone or in combination, does not anticipate or render obvious Applicants’ independent claims 1 and 21, nor claims 5, 7-9 and 22- 24 which depend therefrom. Accordingly, claims 5, 7-9 and 22-24 are allowable for at least the same reasons as discussed for claims 1 and 21. Accordingly, withdrawal of the rejection of claims 5, 7-9 and 22-24 is respectfully requested.

Claim 6 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Boucino in view of Simons as applied to claim 1 above and in further view of U.S. Patent No. 3,649,744 to Coleman (hereinafter Coleman). In addition, claims 10 and 11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Boucino in view of Simons as applied to claim 1 above and in further view of U.S. Patent No. 5,789,711 to Gareis et al. (hereinafter Gareis). Applicants respectfully traverse these rejections. Claim 13 is also rejected under 35 U.S.C. §103(a) as being unpatentable over Boucino in view of Simons and in further view of Prudhon (USP 5,952,615).

Claims 6, 10, 11 and 13 each depends from claim 1 and includes all the limitations recited in claim 1. As discussed above, the suggested combination of Boucino and Simons fails to disclose or suggest all the limitations recited in claim 1. Each of Coleman, Gareis and Prudhon fails to cure the deficiencies of Boucino and Simons because they fails to disclose or suggest “a substantially flat configurable dielectric separator disposed between the plurality of twisted pairs of conductors in the finished cable,” as is recited in Applicants’ claim 1. Therefore, although Applicants do not agree that the proposed combination of Boucino and Simons, and any of the additional references, is proper, the proposed combinations do not disclose or suggest each and every limitation recited in claim 1. Therefore, claim 1 is patentable over the art of record. Accordingly, claims 6, 10, 11 and 13, which depend from

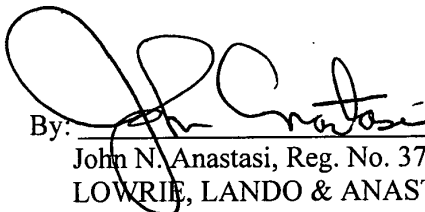
claim 1, are allowable for at least the same reasons as claim 1. Therefore, withdrawal of the rejection of claims 6, 10, 11 and 13 is respectfully requested.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 50/2762.

Respectfully submitted,
William Clark et al., Applicants

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