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 TORU YAMAGUCHI, TAISHI MORIKAWA,
and CHITOSHU NAKAMURA

Appeal No. 2007-1092
Application No. 10/939,463
Technology Center 2800

Decided: May 10, 2007

Before JAMES D. THOMAS, LEE E. BARRETT, and ROBERT E. NAPPI
Administrative Patent Judges.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 of the final rejection of claims 1 through 3. For the reasons stated *infra* we affirm the Examiner's rejection of these claims.

INVENTION

The invention is directed to a connector for a coaxial cable. Claim 1 is representative of the invention and reproduced below:

> 1. A coaxial cable shielding terminal electrically connected to a braid of said coaxial cable exposed at the end portion thereof comprising:
>
> a press-clamping portion press-connected to an end portion of a coaxial cable, said press-clamping portion including:
>
> a pair of braid press-fastening portions extend in an upstanding manner respectively from opposite side edges of a terminal bottom plate portion, and press-connected to said braid of said coaxial cable by press-fastening;
>
> a connecting piece portion which can be inserted at its distal end portion between an inner insulating layer of said coaxial cable and said braid from the end side of said coaxial cable so that said braid can be held between said connecting piece portion and distal end portions of said braid press-fastening portions;
>
> and grooves of a triangular cross-section formed in an inner surface of said press-clamping portion, and extend in respective directions intersecting a direction of insertion of said coaxial cable,
>
> wherein each of said grooves is formed such that that corner of the triangle, defining a bottom of said groove, is located upstream of a center of an opening of said groove in the direction of insertion of said coaxial cable.

REFERENCES

The references relied upon by the Examiner are:

Szegda	US 4,990,106	Feb. 5, 1991
Nishikawa	US 5,110,308	May 5, 1992
Holliday	US 5,501,616	Mar. 26, 1996

REJECTION AT ISSUE

Claims 1 through 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Nishikawa in view of Holliday and Szegda. The Examiner's rejection is set forth on pages 3 and 4 of the Answer. Throughout the opinion we make reference to the Brief and Reply Brief (filed June 28, 2006 and October 27, 2006 respectively), and the Answer (mailed August 28, 2006) for the respective details thereof.

ISSUES

Appellants contend that the Examiner's rejection based upon Nishikawa in view of Holliday and Szegda is in error. Appellants state that "the claimed invention comprises a braided portion of a cable press-fitted between an inner and outer member, wherein the outer member is grooved." (Br. 11). Appellants argue both Szegda and Holliday teaches a pressing the braid member and the elastic jacket member, and as such do not provide motivation to modify Nishikawa to arrive at the Appellants' device. (Br. 11).

The Examiner contends that the rejection of the claims is proper. The Examiner states that braid material pressed between two members is taught by Nishikawa. (Answer 5). Further, the Examiner finds that the function of the grooves taught by Holliday and Szegda is to secure the cable to the connector.

The contentions of Appellants raise several issues, first is the scope of the claims limited to a device where the braid alone is pressed between two members, and second, do the references of record provide evidence to suggest using the grooves on the press members of Nishikawa?

FINDINGS OF FACT

Nishikawa teaches a connector which can be mounted on a coaxial cable. In one embodiment, depicted in figures 1 through 5b, the connector has two press-clamping sections. The connector also has an outer conductor adapter which is inserted between the insulating layer (12) and the braided outer conductor (3). The section 6, press clamps around the braid, and clamps the braid (3) between the outer conductor adapter and the press clamp. There is a second press clamp section, 8, which grips the coaxial cable jacket. See figures 4b, 5b, and col. 6, ll. 51-60. In a second embodiment, Nishikawa teaches that one press clamping member can be used to secure both connection of the outer conductor adapter to the braid and the connector to the cable jacket. Col. 6, l. 64- col.7, l. 2. Nishikawa does not address placing grooves of a triangular cross-section on the inner surface of the press-clamping members.

Szegda teaches a connector which can be mounted on a coaxial cable. The coaxial cable is prepared by folding the braided outer conductor (20g) over the outer jacket (24). See figure 2, and col. 3 ll. 13-22. The connector includes an inner sleeve (30) with external grooves (32) and an outer sleeve (44) with internal grooves (item 48). See figures 2, 4, 6, and col. 3, ll. 23-28, 43-48. The cable is inserted into the connector such that the inner sleeve (30) goes between the insulating layer and the braid, the outer sleeve overlays the outer jacket which has the braid folded over, i.e. from the center of the cable out the elements are inner conductor, insulating layer, inner sleeve, braid, outer jacket, braid, and outer sleeve. See figure 6, col. 4, ll. 6-12. Thus, the grooved outer surface of the inner sleeve and the grooved inner surface of the outer sleeve both contact the braid. The outer sleeve is crimped to attach the connector to the cable. Col. 4, ll.18 -21.

The grooves in the outer sleeve are triangular in cross section, and arranged such that the bottom of the triangle is upstream (with respect to the insertion of the cable) of the center of the triangle. See figs. 2, 4, and 6. Szegda teaches that the grooves and the serrations they form provide a "positive and reliable" grip on the cable jacket. Col. 4, ll. 50-58, and col. 5, ll. 1-5. The deformation of the jacket provides a weather tight seal. Col. 4, ll. 50-58 and col. 5, ll. 9-12. Thus, Szegda teaches that the serrations provide two functions, gripping the cable and providing a weather tight seal.

Holliday teaches a connector which can be mounted on a coaxial cable. Holliday teaches that it is well known in the art that coaxial cables are prepared to receive a connector by stripping the cable and folding the outer braided conductor over the outer jacket. Col. 3, ll. 14-18. The connector of Holliday includes an inner sleeve 21 and an outer sleeve 26. See figs 1, 2, 5, and col. 3, ll. 29-37. The inner sleeve is inserted between the insulator and the braided conductor, the outer sleeve surrounds the folded over braided conductor and the jacket see fig 1. Both the inner sleeve and the outer sleeve are grooved.

PRINCIPLES OF LAW

Office personnel must rely on Appellants' disclosure to properly determine the meaning of the terms used in the claims. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980, 34 USPQ2d 1321, 1330 (Fed. Cir. 1995). "[I]nterpreting what is *meant* by a word *in* a claim 'is not to be confused with adding an extraneous limitation appearing in the specification, which is improper.'" *In re Cruciferous Sprout Litigation*, 301 F.3d 1343, 1348, 64 USPQ2d 1202, 1205, (Fed. Cir. 2002) (emphasis in original) (citing *Intervet Am., Inc. v. Kee-Vet Labs., Inc.*, 887 F.2d 1050, 1053, 12 USPQ2d 1474, 1476 (Fed.Cir.1989)).

As was recently described in *In re Kahn*, 441 F.3d 977, 78 USPQ2d 1329 (Fed. Cir. 2006):

> [T]he "motivation-suggestion-teaching" test asks not merely what the references disclose, but whether a person of ordinary skill in the art, possessed with the understandings and knowledge reflected in the prior art, and motivated by the general problem facing the inventor, would have been led to make the combination recited in the claims. From this it may be determined whether the overall disclosures, teachings, and suggestions of the prior art, and the level of skill in the art – i.e., the understandings and knowledge of persons having ordinary skill in the art at the time of the invention-support the legal conclusion of obviousness. (internal citations omitted).

Id. at 988, 78 USPQ2d at 1337. To establish a prima facie case of obviousness, the references being combined do not need to explicitly suggest combining their teachings. *See id.* at 987-88, 78 USPQ2d at 1337-38 ("the teaching, motivation, or suggestion may be implicit from the prior art as a whole, rather than expressly stated in the references"). "'The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art.'" *Id.* at 987-88, 78 USPQ2d at 1336 (quoting *In re Kotzab*, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000)).

ANALYSIS

Claim 1 recites "a pair of braid press-fastening portions extend in an upstanding manner respectively from opposite side edges of a terminal bottom plate portion, and press-connected to said braid of said coaxial cable by press-

fastening; a connecting piece portion which can be inserted at its distal end portion between an inner insulating layer of said coaxial cable and said braid from the end side of said coaxial cable so that said braid can be held between said connecting piece portion and distal end portions of said braid press-fastening portions." Thus, the scope of claim 1 includes a connecting piece which is inserted between the insulator and the braid of the coaxial cable. The scope of claim 1 also includes a pair of press-fastening portions which have grooves on the inner surface. The braid press-fastening portions are used to hold the braid between the connector piece and the braid press-fastening portions. We find no statement limiting the claim to only having the braid between the connecting piece and the braid press fastening portions. Nor do we find any limitations directed to a separate jacket press fastening portions.

As discussed in our findings of fact we find that Nishikawa teaches a coaxial connector which has an inner connecting piece portion and a press-fastening portion. In one embodiment there is a separate press-fastening portion for each of the braid and the jacket, in another there is one press-fastening portion for both. Nishikawa does not teach that the press-fastening portion has grooves. Further, as discussed, Szegda teaches a coaxial cable connector which also has an inner connecting piece and a press-fastening portion. In Szegda the surfaces of these pieces which contact the braid have grooves. Szegda teaches that these grooves provide a positive grip on the cable and that the interaction of the jacket with these grooves provides a weather tight seal. With respect to the Examiner's rejection, the teachings of Holliday are cumulative of those relied upon in Szegda. Thus, we find ample evidence to support the Examiner's finding that one skilled in the art would have been motivated to groove the surface of Nishikawa's press-fastening portions to provide better grip to the braid and cable.

We are not convinced by Appellants' arguments because they are not commensurate with the scope of the claims. Appellants' arguments focus on the teachings of Szegda and Holliday to grip both the braid and the jacket of the cable. Appellants' claims are not limited to the braid press-fastening portion only gripping the braid. As discussed *supra*, we find that claim 1 is not limited to the braid press-fastening portion gripping only the braid. As taught by both Szegda and Holliday, it is conventional in the art to fold the braid over the jacket when preparing the cable for installation of a connector. Thus, both the press-fastening piece and the connecting piece, between the insulator and the braid, both contact the braid in an arrangement that meets the claim language.

Thus, we find for the Examiner and sustain the Examiner's rejection, as Appellants have not convinced us of error in the Examiner's rejection. Appellants have presented no arguments directed to the limitations of dependent claims 2 and 3. As such we group claims 2 and 3 with claim 1 and sustain the Examiner's rejection of claims 2 and 3 for the same reasons discussed with respect to claim 1.

CONCLUSION

We sustain the Examiner's rejection of claims 1 through 3 under the under 35 U.S.C. § 103(a) as we find sufficient evidence to support the Examiner's rejection of independent claims 1. The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

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