

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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRIS W. KORINEK

Appeal No. 1999-2699
Application No. 08/884,049

ON BRIEF

Before KRASS, DIXON, and BLANKENSHIP, **Administrative Patent Judges**.
DIXON, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-5, 8, 9, and 11-15. Claims 6, 7, 10 and 16-19 have been indicated by the examiner as allowable.

We REVERSE.

BACKGROUND

Appellant's invention relates to a twist-on wire connector adapted for rapid assembly. The connector has a threaded portion and a non-threaded portion. The coil minimally contacts the non-threaded portion of the shell prior to insertion of the wires into the coil. Therefore, the wire coil may be easily pressed into the shell with negligible damage to the threaded portion during manufacture. When the coil expands during twisting with insertion of wire ends, the coil expands and engages the threaded portion inhibiting accidental removal of the coil from the shell. (Brief at page 3.) An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A twist-on connector for joining ends of electrical wires, said twist-on connector comprising:

a shell of electrically insulating material having a frusto-conical shape with an aperture extending from one end of the shell to closed end, the aperture has an outer tapered section proximate to the one end and which is threaded to engage the electrical wires, a beveled section of the aperture tapers inwardly from the outer tapered section to an intermediate tapered section, the intermediate tapered section being formed by a threadless region proximate to the beveled section and a threaded region extending inward from the threadless region toward the closed end; and

a coil within the aperture of the shell and having a conical shape with a larger end, a smaller end and a middle portion therebetween, the coil having a first plurality of turns at the larger end which engage the threadless region of the aperture, and the middle portion being spaced from the shell prior to insertion of the electrical wires into the aperture.

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The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Waddington et al. (Waddington)	3,875,324	Apr. 01, 1975
Scott	4,220,811	Sep. 02, 1980

Claims 1-5, 8, 9, and 11-15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Waddington in view of Scott.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellant regarding the above-noted rejections, we make reference to the examiner's answer (Paper No. 11, mailed May 11, 1999) for the examiner's reasoning in support of the rejections, and to appellant's brief (Paper No. 10, filed Apr. 9, 1999) for appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we make the determinations which follow.

Appellant argues that the examiner has not established a *prima facie* case of obviousness and that the examiner's contentions with respect to the combined

teachings of Scott and Waddington would not suggest the claimed invention. (See brief at pages 5-6.) We agree with appellant. Specifically, appellant argues that:

[t]he final rejection states (page 3, 2nd paragraph) that Scott's aperture area 56 corresponds to the claimed "threadless region". That is incorrect because the coil 28 does not engage threadless area 56 as required by the pending claims (e.g claim 1, lines 12-13). Instead the large end 30 of Scott's coil 28 only engages the threaded section 36 after the coil has been inserted into the shell (column 1, line 59, *et seq.*).

The final rejection also erroneously contends that Scott suggests adding threads to aperture area 42 in the Waddington *et al.* connector. However, if the teachings of the references were combined at best the threaded region 36 of Scott would be added to Waddington *et al.* for engagement by the turns at the large end of coil 14. That still would not suggest providing threads at the inward aperture area 42 which is not contacted by the middle of the coil. Furthermore adding threads for the large end of the coil teaches away from the presently claimed structure in which the large coil end engages a threadless aperture region.

We agree with appellant. From our understanding of the examiner's rejection, the examiner has found various mix and match parts of the claimed invention in the teachings of Scott and Waddington, but the examiner has provided neither a teaching nor a suggestion in the prior art to modify the references nor has the examiner provided a separate convincing line of reasoning why one skilled in the art would have been motivated to make the invention as recited in the claims.

The examiner maintains that Scott teaches the threaded and non-threaded portions adjacent to each other and that the threaded portion will engage the coil when

it is expanded. (See answer at pages 4-5.) We agree with the examiner, but the mere sequence of threaded portions does not by itself meet the limitations as recited in independent claim 1. Claim 1 further requires “a coil within the aperture of the shell and having a conical shape with a larger end, a smaller end and a middle portion therebetween, the coil having a first plurality of turns at the larger end which engage the threadless region of the aperture, and the middle portion being spaced from the shell prior to insertion of the electrical wires into the aperture. (Emphasis added.) From our understanding of Scott, the coil engages the threaded portion of the shell (See Scott Fig. 3.) Therefore, in our view, the combination of the use of a non-threaded portion of the shell contacting the coil of Waddington with the teaching of Scott to have the coil only in contact with the threaded portion of the shell would not have motivated the skilled artisan to use the non-threaded portion of the shell to contact the coil rather than the threaded portion of the shell. Therefore, we find that the examiner has not established a *prima facie* case of obviousness, and we will not sustain the rejection of independent claim 1 and its dependent claims 2-5, 8 and 9. Similarly, we will not sustain the rejection of claims 11-15.

CONCLUSION

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To summarize, the decision of the examiner to reject claims 1-5, 8, 9 and 11-15 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
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)	
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)	BOARD OF PATENT
JOSEPH L. DIXON)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
HOWARD B. BLANKENSHIP)	
Administrative Patent Judge)	

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