

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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL KIRIK

Appeal No. 2000-0531
Application No. 08/782,151

ON BRIEF

Before FRANKFORT, McQUADE, and JENNIFER D. BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 4, 6, 9, 12 and 13, which are all of the claims pending in this application, claims 7, 8, 10 and 11 having been canceled subsequent to the final rejection.

BACKGROUND

The appellant's invention relates to a method for fitting a reinforced fire hose to a coupling, wherein the fire hose inner diameter is larger than the outer diameter of the coupling. In particular, after the hose is placed onto the coupling, it is heated so as to shrink until it engages with the coupling without leaving gaps. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears in the appendix to the appellant's brief.

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

Benson et al. (Benson)	3,567,259	Mar. 2, 1971
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The appellant's admitted prior art as discussed on page 2 of the specification and depicted in Figure 2 and the admitted prior art as discussed on page 4, lines 10-15, of the specification.

The following rejection is before us for review.

Claims 1, 4, 6, 9, 12 and 13 stand rejected under 35 U.S.C. § 103 as being unpatentable over the appellant's admitted prior art in view of Benson.

Reference is made to the brief¹ (Paper No. 16) and the answer (Paper No. 18) for the respective positions of the appellant and the examiner with regard to the merits of this rejection.

¹ While the appellant filed a paper on September 8, 1999 (Paper No. 19) entitled "REPLY BRIEF," this reply brief merely provides updated information with regard to the real party in interest and does not contain any additional argument against the examiner's rejection.

OPINION

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

The examiner states on page 5 of the answer that the appellant's admitted prior art method on page 2 of the specification and depicted in Figure 2 includes the steps of placing a reinforced fire hose over a coupling such that a gap is created between the outer surface of the coupling and the inner surface of the hose and then clamping the hose to the coupling and the appellant does not challenge this statement. Additionally, the examiner states on page 6 of the answer that the fire hose of the appellant's admitted prior art fitting method is presumed to be a nylon reinforced fire hose. As the appellant has not challenged this statement, we shall consider the use of a nylon reinforced fire hose to be part of the admitted prior art fitting method.

The admitted prior art fails to teach wrapping the fire hose with a heating apparatus and then heating the hose such that the hose shrinks and engages the outer surface of the coupling, whereby no gap exists between the inner surface of the hose and the outer surface of the coupling, as required in each of the independent claims. To address this deficiency, the examiner turns to the teachings of Benson. Benson discloses joining a section of tubing 10 and

a fitting 11 by applying adhesive to the outer surface of the tubing, placing the fitting over the tubing and directing hot air from a gun onto the fitting to heat shrink the fitting over the section of tubing (col. 3, lines 3-14). We also note that Benson points out that a fracture of a length of tubing may be repaired by uniting the parts of the tubing on each side of the fracture to a fitting such as a short length of tubing in accordance with the invention (col. 2, lines 50-53).

The examiner takes the position that a reasonable inference that one would draw from Benson is that any member that is capable of being shrunk by the application of heat is capable of being joined to another member via a "shrink-fit" (answer, page 8) and thus concludes that one of ordinary skill in the art would have found it obvious to modify the prior art fire hose-fitting method by applying an adhesive to the fitting (coupling) and then heat shrinking the hose onto the fitting or, in the alternative, heat shrinking the hose onto the fitting prior to clamping the hose thereto, in order to obtain a better connection (answer, pages 5-6). As for the step of wrapping the fire hose with a heating apparatus, the examiner contends that one of ordinary skill in the art would have found it obvious to heat the hose with any known device used to heat a tubular member and, thus, concludes that it would have been obvious to such a person to use the known heating apparatus discussed on page 4, lines 10-15, of the specification to heat the fire hose (answer, page 6). The examiner considers the exact temperature to which the hose is heated to be a matter of engineering design choice, since such temperature is dependent upon the material of the hose and would be determined without undue experimentation.

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Obviousness is tested by "what the combined teachings of the references would have suggested to those of ordinary skill in the art." In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). However, it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Moreover, the mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification. See In re Mills, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

In this instance, while Benson does teach that tubings and fittings can be joined by heat shrinking a fitting around a tubing, we find in these teachings no suggestion to modify the admitted prior art fire-hose fitting method by heat-shrinking the fire hose to the coupling. In our view, the only suggestion for modifying the admitted prior art method in the manner proposed by the examiner to meet the above-noted limitations stems from hindsight knowledge derived from the appellant's own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). It follows that we cannot sustain the examiner's rejection of independent claims 1, 4 and 12, or of claims 6, 9 and 13 which depend therefrom.

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In a footnote on page 4 of the answer, the examiner refers to U.S. Pat. No. 3,423,518 to Weagant. While the examiner has not relied upon this reference in the rejection², we note, for the record, that we find therein no teaching, and the examiner has pointed to none, which would remedy the above-noted deficiency of the combination proposed by the examiner.

² Where a reference is relied on to support a rejection, whether or not in a "minor capacity," there would appear to be no excuse for not positively including the reference in the statement of rejection. In re Hoch, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970).

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CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 4, 6, 9, 12 and 13 under 35 U.S.C. § 103 is reversed.

REVERSED

CHARLES E. FRANKFORT)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JENNIFER D. BAHR)	
Administrative Patent Judge)	

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