

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. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEWART B. DOBSON
and MALEK ABDUL MASSIH

Appeal No. 2004-0526
Application No. 09/981,975

HEARD: May 4, 2004

Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.
STAAB, Administrative Patent Judge.

DECISION ON APPEAL

Steward B. Dobson and Malek Abdul Massih (appellants) appeal from the examiner's final rejection of claims 1-4 and 7-9, all the claims currently pending in the application.

Appellants' invention pertains to a tool for driving a headed fastener, and more particularly to a socket type tool or a nutsetter. A further understanding of the invention can be derived from a reading of claim 1, the sole independent claim on appeal, which reads as follows (with emphasis added):

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1. A tool for driving headed fasteners comprising:

an opening in said tool;

said opening defined by a wall of said tool, said wall having a plurality of planar surfaces, a connection surface connecting said planar surfaces at their ends to define said opening, each said connection surface having a convex surface continuous with said planar surface and a concave surface continuous with said convex surfaces, said concave and convex surfaces define arcs with said arcs *having the same radius*.^[1]

The references applied in the final rejection are:

Dossier	4,581,957	Apr. 15, 1986
Colvin	4,930,378	June 05, 1990

Claims 1-4 and 7-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Dossier or Colvin.

Reference is made to appellants' main and reply briefs (Paper Nos. 16 and 22) and to the final rejection and answer (Paper Nos. 11 and 18) for the respective positions of appellants and the examiner regarding the merits of this rejection.

¹The term "said convex surfaces" (plural) in the next to the last line of the claim lacks a proper antecedent. At oral hearing, counsel for appellants, when queried as to whether claim 1 required each connecting surface to have more than one convex surface, stated that the intent was to define each connection surface as having two convex surfaces and a concave surface. Accordingly, we interpret claim 1 as calling for the connection surfaces to each have a first convex surface continuous with one planar surface, a second convex surface continuous with another planar surface, and a concave surface continuous with the first and second convex surfaces. Upon return of this application to the Technology Center, claim 1 should be amended to reflect this claim interpretation.

Discussion

Dossier and Colvin each disclose a tool for driving a headed fastener comprising a socket having a plurality of planar surfaces (Dossier, surfaces 11; Colvin, surfaces 32), and curved connection surfaces connecting the planar surfaces at their ends to define said socket. Each connection surface has convex surfaces (Dossier, surfaces 4; Colvin, surfaces 36) continuous with respective adjacent planar surfaces, and a concave surface (Dossier, surfaces 3; Colvin, surfaces 42) continuous with the convex surfaces.

In rejecting the appealed claims as being unpatentable over Dossier or Colvin, the examiner appears to concede that the tools of the applied references do not meet the limitation of claim 1 calling for the concave and convex surfaces to have the same radius. In this regard, the examiner takes the following position:

Both patents show the claimed invention except for the specific size ranges for the convex and concave surfaces^[2], however to size any part of the tool to fit the desired function, and as there is no clear indication from the original specification that these ranges are critical, it would be obvious to one skilled in the art at the time the invention was made to modify any of the patents to use any well known size range. [Final

²The examiner's characterization of the difference between the applied references and the claims as a difference in the specific "size ranges" for the convex and concave surfaces is misplaced, in our view.

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rejection, page 2; incorporated by reference into the examiner's answer.]

The examiner further expands upon this position in the "Response to Argument" section of the answer as follows:

Appellants also assert that neither reference "suggests" the use of equal radii, however this again is not the basis for the rejection.

The rejection is based upon the well established fact that one skilled in the art would clearly know what size to make the drive head of the tool to fit the particular situation Therefore merely changing the size of the radii would result in the well known and obvious situation that the point of engagement of the flat surface would change making for a different point of engagement with the workpiece as desired. This is clearly as [sic, a] well known result of change in size and thus does not in and of itself lead to patentability. [Answer, pages 3-4.]

In considering the merits of the rejection, we note that a rejection based on § 103 must rest on a factual basis, with the facts being interpreted without hindsight reconstruction of the invention from the prior art. In making this evaluation, the examiner has the initial duty of supplying the factual basis for the rejection he advances. He may not, because he doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967). In the present case, the examiner has failed

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to advance any factual basis to support his conclusion to the effect that it would have been obvious to one of ordinary skill in the art to modify the tools of Dossier or Colvin such that the connection surfaces comprise concave and convex surfaces defining arcs having the same radius, as now claimed. Rather, the examiner's stated position appears to be based on impermissible hindsight gleaned from appellants' own disclosure. This of course is improper. *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

Concerning the examiner's argument on page 2 of the final rejection that the claimed subject matter would have been obvious because there is no clear indication from the original specification that the claimed "ranges" are critical, we note that criticality is not a requirement of patentability. See *W. L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1556, 220 USPQ 303, 315 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).

For the reasons stated above, we cannot support the examiner's rationale for rejecting the appealed claims. Accordingly, we shall not sustain the examiner's rejection of claims 1-4 and 7-9 under 35 U.S.C. § 103(a).

Remand to the Examiner

This case is remanded to the examiner for consideration of the following matter. Claim 1, as interpreted, calls for a tool comprising an opening having planar surfaces, connection surfaces connecting the planar surfaces at their ends, each connection surface having convex surfaces and a concave surface, with the convex and concave surfaces having the same radius.

The Figures 5-7 embodiment of Colvin comprises a tool comprising an opening having planar surfaces 32' and connection surfaces connecting the planar surfaces at their ends. Each connection surface comprises a pair of convexly curved engagement surfaces 36' of radius R_2 connected to an associated planar surface 32', a concave connecting surface 42' of radius R_3 , and a pair of flat surfaces 34' connecting the convexly curved engagement surfaces to the concave connecting surface 42'.

Colvin's description of the Figures 5-7 embodiment at column 7, lines 5-33, includes the disclosure at lines 8-18 that the radius R_2 *decreases in length* from the open axial end 46' toward the closed axial end 44'. This is illustrated in Figures 6 and 7, where a comparison of R_2 in each drawing figure reveals that R_2 as shown in Figure 6 is substantially greater than R_2 as shown in Figure 7. It is also noted that connecting surface 42' has

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substantially the same curvature throughout the axial direction of the wrench opening (see column 7, lines 29-33, and the showing of R_3 in Figures 6 and 7), that R_2 as seen in Figure 6 is greater than the R_3 , and that R_2 as seen in Figure 7 is less than R_3 . Based on the above disclosure, the reasonable inference can be drawn that at some point along the axial direction of the wrench opening, R_2 and R_3 are of equal length.

The examiner should (1) evaluate the patentability of the appealed claims in light of the above discussion regarding the Figures 5-7 embodiment of Colvin, (2) determine whether the appealed claims patentably distinguish over the Figures 5-7 embodiment of Colvin, either alone or in combination with other prior art the examiner may be aware of, and (3) take whatever action is deemed appropriate in light of (1) and (2).

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Summary

The rejection of claims 1-4 and 7-9 under 35 U.S.C. § 103(a) is reversed.

This case is remanded to the examiner for consideration of the matter discussed above.

REVERSED AND REMANDED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
LAWRENCE J. STAAB)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY V. NASE)	
Administrative Patent Judge)	

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