THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GEORGE K. AUSTIN and STEPHEN N. WEILER

Appeal No. 97-1439
Application No. 08/417,981[1]

ON BRIEF

Before CALVERT, ABRAMS, and NASE, Administrative Patent Judges.

NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 4, 6 through 13 and 15.[2] Claim 14 has been allowed. Claim 5 has been canceled.

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[1] Application for patent filed April 6, 1995.

[2] Claim 15 has been amended subsequent to the final rejection.

We REVERSE.

BACKGROUND

The appellants' invention relates to a mechanism for adjusting the height of a post that may be used to support, for example, dental equipment (specification, p. 1). An understanding of the invention can be derived from a reading of exemplary claims 1, 8 and 15, which appear in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner as evidence of obviousness under 35 U.S.C. § 103 are:

Gilbert et al. (Gilbert)	4,182,364	Jan. 8, 1980
Namur	4,640,211	Feb. 3, 1987
Garringer	4,706,367	Nov. 17, 1987
Yokomatsu et al. (Yokomatsu)	4,906,028	Mar. 6, 1990

Claim 12 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.

Claims 1 through 4, 8 through 11, 13 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Namur in view of Garringer.

Claim 6 stands rejected under 35 U.S.C. § 103 as being unpatentable over Namur in view of Garringer and Gilbert.

Claim 7 stands rejected under 35 U.S.C. § 103 as being unpatentable over Namur in view of Garringer and Yokomatsu.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the § 103 and § 112 rejections, we make reference to the examiner's answer (Paper No. 12, mailed December 3, 1996) for the examiner's complete reasoning in support of the rejections, and to the appellants' brief (Paper No. 11, filed October 28, 1996) and reply brief (Paper No. 13, filed February 7, 1997) for the appellants' arguments thereagainst.

OPINION

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

The indefiniteness issue

We do not sustain the rejection of claim 12 under 35 U.S.C. § 112, second paragraph.

Claims are considered to be definite, as required by the second paragraph of 35 U.S.C. § 112, when they define the metes and bounds of a claimed invention with a reasonable degree of precision and particularity. See In re Venezia, 530 F.2d 956, 958, 189 USPQ 149, 151 (CCPA 1976).

The examiner determined (answer, pp. 3 and 8) that the use of the phrase "the keeper defines a clearance slot between the keeper and the bottom post" in claim 12 was vague and indefinite.

We do not agree. As correctly pointed out by the appellants (brief, p. 4), claim 12 is reciting the rotational clearance space (i.e., slot) provided between the lower part 44 of the interior of the keeper sleeve 40 and the outer surface of the bottom post 20 as shown in Figure 3. The mere fact that Figure 3 also shows a rotational clearance space (i.e., slot) provided between the flange 54 of the bushing 50 and the lower part 44 of the interior of the keeper sleeve 40 does not render claim 12

indefinite. Thus, it is our determination that claim 12 does define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity. Accordingly, we have determined that claim 12 is definite.

Prior art issues

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other modification. See In re Lintner, 9 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is prima facie obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge

generally available to one of ordinary skill in the art that would have led that individual to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Rejections based on § 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 177 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Products Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

With this as background, we turn to the examiner's § 103 rejections of the claims on appeal.

Claims 1 through 4, 6, 7, and 11 through 13

Claim 1 recites a system for adjusting the height of a post. The system comprises, inter alia, a tubular bottom post, a top post having a plurality of outer grooves, an expandable stop ring which is split to facilitate expansion thereof, and a keeper.

Namur discloses an adjustment fixture for wishbone booms of board-sailing devices. As shown in the top view of Figure 1, the wishbone boom consists essentially of two main tubes 1 joined under an acute angle on the mast side by way of a connecting member 2, and of two end tubes 3 accommodated in a telescope fashion by the main tubes 1 and joined together by way of an elastic connecting member 4. As shown in Figure 2, each end tube 3 includes several spaced-apart, indented peripheral grooves 5 which can be engaged by an O-ring shaped locking member 6 of a locking ring generally denoted by 7, when the wishbone boom is assembled and is to be adjusted to the length corresponding to the respective sail. The locking ring 7 is made of rubber or the like and provides a tight seal between the main tube 1 and the end tube 3. In the embodiment of the locking ring 7 according to Figure 2, a cylindrical intermediate annular sleeve 8 adjoins the O-ring-shaped locking member 6 of the integrally constructed locking ring 7, and a conical end section 9 constitutes the

termination, there being a radially outwardly extending annular surface 10 between the outer surface of the cylindrical intermediate member 8 and the conical end section 9. The radial width of this annular surface corresponds to the wall thickness of the main tube 1 and forms a flush abutment for a widened end 11 of this main tube. The outer diameter of the cylindrical intermediate member 8 corresponds to the inner diameter of the widened end 11 of the main tube 1. Namur teaches that a readily handleable transition is formed between the main tube 1 and the end tube 3, from the radial annular surface 10 via the conical end section 9 and that this transition is watertight. Namur further discloses that the O-ring shaped locking member 6 also contributes substantially toward this aim since this locking member is in firm contact with the inclined transition of the widened end 11 of the main tube 1 when the sail is rigged. In the embodiment of the locking ring 7 according to Figure 4, the same locking ring 7 is again employed as in the embodiment of Figure 2, but in this case a separate profiled ring 13 of a metal or a synthetic resin is placed on the end of the main tube 1 which has not been widened. Thus, in the embodiment of Figure 4 there is the possibility of still further reducing the length of the main tube 1, if desired. Namur teaches that the embodiment

of Figure 4 is not preferred due to the somewhat problematic sealing between the profiled ring 13 and the main tube 1, even though an O-ring (not shown) could be inserted in an inner circumferential groove (likewise not shown) of the profiled ring 13. Namur states that the adjustment fixture of his invention exhibits the advantage of having the transition between the main tube and the end tube well sealed against water and dirt particle penetration (sand and the like).

Garringer discloses a system for mechanically joining handrailing members. As shown in Figure 2, the system includes a first railing member 20 having a male end defined by a male protrusion 26 of reduced diameter with respect to the first railing member 20 and an adjacent second railing member 30 having a female end defined by a longitudinal hole 36 in the second railing member 30 with the hole 36 shaped and dimensional to receive the male protrusion 26 of the first railing member 26. The second railing member 30 has a circumferential groove 32, extending outwardly from the periphery of the hole 36, which is positioned over an inwardly extending circumferential groove 22, along the male protrusion 26 when the protrusion 26 is extended fully into the hole 36 of the second railing member 30. A

C-shaped annular collar 40, having an inside diameter less than the diameter of the male protrusion 26 and an outside diameter greater than the inside diameter of the hole 36 in the second rail member 30, is positioned within the two grooves 22 and 32 to prevent the longitudinal movement of the first railing member 20 relative to the second railing member 30.

The examiner determined (answer, pp. 3-4) that Namur only lacks the claimed stop ring being split and that

> [t]o one of ordinary skill in the art at the time the invention was made, it would have been obvious to modify the stop ring of Namur by incorporating a slit to create a split stop ring as taught by Garringer in order to make the ring more flexible and easier to relocate to other top post grooves.

We do not agree. For the reasons set forth by the appellants (brief, pp. 5-6), it is our opinion that one of ordinary skill in the art would not have modified the stop ring Of Namur to include a slit to create a split stop ring since the inclusion of a slit in the stop ring would be contrary to Namur's specific goal of providing a watertight seal.

In summary, we see no motivation in the applied prior art of why one skilled in the art would have modified the device of

Namur to make the modifications necessary to arrive at the claimed invention. Thus, the examiner has failed to meet the initial burden of presenting a prima facie case of obviousness.[3] Thus, we cannot sustain the examiner's rejection of appealed independent claim 1, or claims 2 through 4, 6, 7, and 11 through 13 which depend therefrom, under 35 U.S.C. § 103.[4]

Claims 8 through 10

Claim 8 recites a method of adjusting the height of a top post that is inserted in a downward direction into a bottom post. The method comprises, inter alia, the steps of (1) attaching a keeper to the bottom post for defining an annular space having gradually diminishing diameter in the downward direction, (2) attaching a stop ring to the top post, (3) fitting the attached stop ring into the annular space so that the keeper prevents further downward movement of the top post relative to

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[3] Note In re Rijckaert, supra; In re Lintner, supra; and In re Fine, supra.

[4] We have also reviewed the additional references applied in the rejection of claims 6 and 7 but find nothing therein which makes up for the deficiency of Namur and Garringer discussed above.

the bottom post while permitting without resisting upward lifting of the top post, (4) orienting the posts such that gravity keeps the stop ring against the keeper, and (5) lifting the top post to move the stop ring out of the annular space to permit relocation of the stop ring on the top post.

The examiner determined (answer, pp. 5-6) that Namur discloses the invention except for the method of adjusting and that

> [i]t would have been obvious to one of ordinary skill in the art at the time the invention was made . . . to use this method [the claimed method] to adjust the configuration of Namur in view of Garringer. As concerns the limitation pertaining to upward lifting of the top post without resistance, it is the position of the examiner that the configuration of Namur also permits upward lifting of the top post without resistance due to the unobstructive geometry between the ring upon which the top post and the keeper 13 as shown in figure 4.

We do not agree. For the reasons set forth by the appellants (brief, p. 7), it is our opinion that the geometry between Namur's locking ring 7 and his keeper ring 13 as shown in Figure 4 is such that upward lifting of the tube (i.e., top post) 3 would be resisted by the firm watertight contact therebetween. Furthermore, we do not agree with the examiner's comments (answer, p. 10) that the geometry between the appellants' keeper

and stop ring is similar to the geometry between Namur's locking ring 7 and keeper ring 13. In that regard, the appellants' keeper 40 and stop ring 30 (see Figure 3) have interengaging tapered surfaces which permit the upward lifting of the stop ring 30 without resistance while Namur's locking ring 7 and keeper ring 13 (see Figure 4) have interengaging cylindrical surfaces which permit the upward lifting of the locking ring 30 with resistance due to the firm watertight contact therebetween. Accordingly, the claimed limitation that the attached stop ring is fitted into the annular space so that the keeper prevents further downward movement of the top post relative to the bottom post while permitting without resisting upward lifting of the top post is not taught or suggested by the applied prior art. Thus, the examiner has failed to meet the initial burden of presenting a prima facie case of obviousness.[5] Thus, we cannot sustain the examiner's rejection of appealed independent claim 8, or claims 9 and 10 which depend therefrom, under 35 U.S.C. § 103.

Claim 15

[5] Note In re Rijckaert, supra; In re Lintner, supra; and In re Fine, supra.

Claim 15 recites a system for adjusting the height of a rotatable post. The system comprises, inter alia, an upright tubular bottom post, an upright top post having a plurality of outer grooves, an expandable stop ring, and a keeper. The expandable stop ring and the keeper are arranged and constructed of materials having sufficiently low coefficients of friction so as to facilitate relative rotation of the top post and stop ring with the bottom post.

The examiner determined (answer, pp. 4-5) that the tubes 1 and 3 of Namur can be rotated using the proper amount of torque and that the material of Namur's locking ring 7 and keeper ring 13 do have a low enough coefficient of friction to allow rotation at a proper torque level.

We agree with the appellants' argument (brief, p. 8) that the materials used in Namur's locking ring 7 and keeper ring 13 do not have a coefficient of friction so as to facilitate relative rotation of the tubes 1 and 3. In our opinion, the coefficient of friction between Namur's locking ring 7 and the keeper ring 13 would restrain, not facilitate relative rotation of the tubes 1 and 3 due to the firm watertight contact between

the locking ring 7 and the keeper ring 13. Accordingly, the claimed limitation that the stop ring and the keeper are arranged and constructed of materials having sufficiently low coefficients of friction so as to facilitate relative rotation of the posts is not taught or suggested by the applied prior art. Thus, the examiner has failed to meet the initial burden of presenting a prima facie case of obviousness.[6] Thus, we cannot sustain the examiner's rejection of appealed independent claim 15 under 35 U.S.C. § 103.

[6] Id.

CONCLUSION

To summarize, the decision of the examiner to reject claim 1 12 under 35 U.S.C. § 112, second paragraph, is reversed; and the decision of the examiner to reject claims 1 through 4, 6 through 11, 13 and 15 under 35 U.S.C. § 103 is reversed.

REVERSED

IAN A. CALVERT Administrative Patent Judge	)
NEAL E. ABRAMS Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
JEFFREY V. NASE Administrative Patent Judge	)

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APPEAL NO. 97-1439 - JUDGE NASE
APPLICATION NO. 08/417,981

APJ NASE

APJ CALVERT

APJ ABRAMS

DECISION: **REVERSED**

Prepared By: Delores A. Lowe

DRAFT TYPED: 13 Apr 98

FINAL TYPED: