

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHUNJI SUNAGA, SHOICHI KOGANEI,
MASARU AKIBA, TOMOYOSHI TSURUFUJI,
YUTAKA KURANO, TOYOAKI TAKIMOTO and
TOSHIHIRO KUROKAWA

Appeal No. 1999-0704
Application No. 08/558,661

ON BRIEF

Before CALVERT, GONZALES, and JENNIFER D. BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

Appeal No. 1999-0704
Application No. 08/558,661

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 2, 4, 5, 8-16, 22, 23 and 25-30. Claims 6 and 24, the only other claims pending in this application, stand allowed.¹

¹ The rejection of claim 24 under the second paragraph of 35 U.S.C. § 112 set forth in the final rejection has been overcome by the amendment (Paper No. 14) filed February 11, 1998 subsequent to the final rejection, which has been entered (see advisory action, Paper No. 15).

BACKGROUND

The appellants' invention relates to an intra-line fishing rod provided with annular fishline guides or a spiral fishline guide within a rod tube to form an improved inner surface which reduces interior frictional resistance on the fishline (specification, page 1). An understanding of the invention can be derived from a reading of exemplary claims 1 and 25, which appear in the appendix to the appellants' brief.

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

Kelly	249,360	Aug. 15, 1963
(Australian patent specification)		
Harada	5-88259	Dec. 3, 1993 ²
(Japanese published unexamined utility patent application)		

The following rejections are before us for review.

- (1) Claims 1, 2, 4, 5, 8-16, 23 and 25-30 stand rejected under 35 U.S.C. § 103 as being unpatentable over Kelly.
- (2) Claim 22 stands rejected under 35 U.S.C. § 103 as being unpatentable over Kelly, as applied to claim 1 above, in further view of Harada.

² An English language translation of this reference, prepared by the Patent and Trademark Office, is appended hereto.

Reference is made to the brief and reply brief (Paper Nos. 17 and 20) and the answer (Paper No. 18) for the respective positions of the appellants and the examiner with regard to the merits of these rejections.

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.

Rejection (1)

The examiner's rationale for the rejection of independent claim 1 appears on pages 3 and 4 of the answer³ and reads as follows:

The patent to Kelly shows a fishing rod in Fig. 12 having a rod tube 20 with inner and out [*sic*: outer] surfaces along the longitudinal axis. The inner surface defines a passageway for passing a fishing line through the interior of the rod. Kelly shows fishing line guide 66 projecting from the inner surface of the rod and cushioning means or resilient sleeve 68 formed between the guide and a body layer of the rod tube. Fig. 13 of Kelly shows line guide 70 mounted directly to the inner surface of the fishing rod 20. In reference to claim 1, Kelly shows a rod tube of synthetic resin as a matrix with reinforcing fibers. It would have been obvious to mount the line guide 70 of Kelly with a resilient layer at the front and rear sides of the line guide as shown in Fig. 12 to reduce stress at the ling [*sic*: line] guide-rod interface by increasing the surface area of the cushioning as shown by Kelly in Fig. 12. It is not clear if the guides 66 are

³ The page numbering of the examiner's answer is irregular, in that the third page is not numbered and page numbering resumes on the fourth page with "Page 2." Our references to pages of the answer in this decision will use the ordinal number of the page rather than the page number actually printed on the page.

formed integrally with the rod. However, it would have been obvious to form the guides with the fishing rod.

Figures 12 and 13 of Kelly illustrate two different embodiments of the narrow bearing surfaces. The resilient sleeve 68 in the Figure 12 embodiment is provided to permit flexing of the rod and is needed because the ring or eye 66 is made of agate, tungsten carbide or glazed porcelain and, thus, is not resilient. The eye 70 of the Figure 13 embodiment, on the other hand, is itself resilient and, according to Kelly (page 3), permits flexing of the rod under load. Thus, we cannot agree with the examiner that Kelly provides any suggestion to add a cushioning layer at the front and rear of the already resilient eye 70. For the reasons which follow, however, it is our opinion that the embodiment of Figure 12 is sufficient, without reference to the Figure 13 embodiment, to have suggested the subject matter of claim 1.

The tubular rod 20 of Kelly's fishing rod is made of "fibre glass" (page 1) and comprises a plurality of narrow closely axially spaced bearing surfaces within its bore which, according to the embodiment of Figure 12, comprise an eye 66 "seating inside resilient sleeve 68 within the bore of the rod" (page 3). We consider the eye 66 and sleeve 68 together to meet the fishline guide⁴ recited in claim 1, with the bulbous portions of the sleeve 68 responding to the cushioning means formed at the front and rear sides of the guide to form a connection between the rod tube and the guide so as to reduce stress concentration when the tube is flexed. As the sleeve 68 is part of the guide and has an outer peripheral surface which

⁴ There is no requirement in the claim that the guide be a one-piece structure.

abuts the inner surface of the rod tube 20, Kelly's guide meets the limitation "said fishline guide having an outer peripheral surface abutting the inner surface of said rod tube between a front and rear side of said fishline guide" in claim 1.

With regard to the limitation in claim 1 that the guide be "formed integrally with"⁵ the rod tube, we note that, in proceedings before it, the PTO applies to the verbiage of claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the appellants' specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). Moreover, absent an express definition in their specification, the fact that the appellants can point to definitions or usages that conform to their interpretation does not make the PTO's definition unreasonable when the PTO can point to other sources that support its interpretation. Morris, 127 F.3d at 1056, 44 USPQ2d at 1029. In this instance, while the appellants use the terminology "formed integrally" several times throughout the specification (pages 7, 8, 9, 10, 21 and 22, for example) and while the only disclosed method of forming the rod and guide involves joining them together in a thermal molding process, we have found in the appellants' specification no express definition of the phrase "formed integrally." Therefore,

⁵ The appellants have elected to use terminology in claim 1 which differs materially from the language "being connected integrally to said rod tube as a consequence of thermal molding" recited in claim 25, discussed *infra*.

we, like the court in Morris and several other decisions cited therein, interpret the terminology "formed integrally" as encompassing not only unitary construction but also parts which are in a fixed relationship to one another. Morris, 127 F.3d at 1055, 44 USPQ2d at 1029. In this regard, one of ordinary skill in the art reading Kelly's disclosure would have inferred, from Kelly's use of the term "seating" and from the illustration in Figure 12, that the eye 66 and sleeve 68 are fixed within the bore of the tube 20. We thus conclude that the disclosure of Kelly's Figure 12 embodiment would have suggested the subject matter of claim 1.

Accordingly, we shall affirm the examiner's decision to reject independent claim 1, as well as claims 2, 5, 8, 15 and 16 which stand or fall with claim 1 (see brief, page 5), as being unpatentable over Kelly. However, since the basis of our affirmance differs from that set forth by the examiner, we designate our affirmance as a new ground of rejection under 37 CFR § 1.196(b) to give the appellants an opportunity to respond thereto.

Turning next to the rejection of claim 4, while the appellants have indicated on page 5 of the brief that claim 4 is separately patentable from claim 1, the appellants have not in fact separately argued the patentability of claim 4 apart from claim 1. Therefore, claim 4 stands or falls with representative claim 1 (see In re Young, 927 F.2d 588, 590, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991); In re Wood, 582 F.2d 638, 642, 199 USPQ 137, 140 (CCPA 1978)). As we have affirmed the examiner's decision to reject claim 1, it follows that we shall also affirm

the examiner's decision to reject claim 4. Like our affirmance of the rejection of claim 1, from which claim 4 depends, we shall also designate our affirmance of the rejection of claim 4 as a new ground of rejection under 37 CFR § 1.196(b).

Claim 14 also depends from claim 1 and further requires "a mirror-like smooth surface having a surface roughness of not more than about 20 μ " on at least one of the inner surface of the tube and the contact portion⁶ of the fishline guide. In response to the appellants' argument on page 8 of the brief that Kelly fails to disclose this specific limitation, the examiner (answer, page 5) concedes that Kelly does not disclose a surface finish of 20 microns but takes the position that

it would have been obvious to provide a smooth surface to reduce friction between the line and the inner surface of the rod and to reduce abrasion between the inner surface of the rod and the line. It would have been obvious to employ a surface roughness of about 20 microns and routine experimentation would determine the best surface roughness.

As the appellants have not challenged the examiner's position, we shall also affirm the examiner's decision to reject claim 14 as being unpatentable over Kelly, designating our affirmance as a new ground of rejection under 37 CFR § 1.196(b) for the same reason discussed above with regard to claim 1.

⁶ We note that "said contact portion" lacks clear antecedent basis in the claim. While it is our opinion that this informality does not render the claim indefinite, it is deserving of correction in the event of further prosecution before the examiner.

Turning now to claims 9 through 12, the appellants point out on page 3 of the reply brief that claim 12 depends from claim 9, which requires a spirally extending guide. In light of this emphasis on the "spirally extends" feature from claim 9, we interpret the appellants' argument (brief, page 8, and reply brief, page 3) that "Kelly clearly fails to disclose a densely arranged spirally extending guide" as being directed to all of claims 9 through 12.⁷ Having considered the entirety of Kelly's disclosure, we perceive no teaching or suggestion therein to form the bearing surfaces (eye 66 and sleeve 68) of the Figure 12 embodiment in the form of a spiral rather than as a series of discrete annular rings. While we acknowledge Kelly's disclosure that the narrow bearing surfaces may comprise a taper helical wire coil (page 1 and claim 5) or rifling along the bore (page 2 and claim 8), these teachings are directed to different embodiments which do not include an eye and resilient sleeve as in the Figure 12 embodiment. Accordingly, we shall not sustain the examiner's rejection of claims 9 through 12.

Claim 13, which appears to be directed to the surface contours A1-A3 discussed in the appellants' specification (pages 23 and 24) with particular regard to the embodiment of Figure 4, depends from claim 1 and further requires:

⁷ The appellants' indication on page 5 of the brief that claims 9-11 stand or fall with claim 1 appears to us to have been an inadvertent error.

a curved surface of a bottom portion⁸ of said fishline guide connected to the inner surface of said rod tube is defined by a concavely-curved surface adjoining said inner surface, and a convexly-curved surface extending from said concavely-curved surface and covering the top and a side surface of said guide.

We do not agree with the examiner that Kelly's Figure 12 embodiment comprises the recited concavely-curved surface adjoining the inner surface. In particular, the concavely-curved surface (the outer peripheral surface of the eye 66) relied upon by the examiner (answer, page 5) is separated from the inner surface of the tube 20 by the sleeve 68 and, thus, does not adjoin the inner surface as recited. Therefore, we shall not sustain the examiner's rejection of claim 13.

We shall also not sustain the examiner's rejection of claim 23, which requires that the fishline guide be formed of a synthetic resin having a plurality of "circumferentially arranged reinforcing fibers embedded therein." With regard to this limitation, the examiner contends that "the materials used are a matter of design choice since the function is the same and no showing of unexpected results was made" (answer, page 5).

Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions

⁸ The reference to a "bottom portion" of the guide as including a surface which covers the top and side of the guide appears somewhat confusing to us. However, as this issue is not before us in this appeal, we leave it to the examiner and the appellants to determine whether different terminology might be more appropriate to describe the surface contour. Additionally, while this type of surface contour is discussed on pages 23 and 24 of the appellants' specification with regard to Figure 4, it appears to us that all of the disclosed guide embodiments comprise such a surface contour.

or hindsight reconstruction to supply deficiencies in the factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

As Kelly provides no teaching or suggestion that the eye 66 or sleeve 68 contains any resin or fibers, let alone fibers circumferentially arranged as required by the claim, and as the examiner has adduced no evidence suggesting the use of such a composite material for the eye or sleeve, it is apparent to us that the examiner has resorted to hindsight, using the appellants' disclosure as a template to reconstruct the claimed invention, in rejecting claim 23. Therefore, we shall not sustain the examiner's rejection of claim 23.

Unlike independent claim 1, independent claim 25 does not recite cushioning means *per se*. Claim 25 does, however, recite a fishline guide having a higher resin content in the front and rear regions thereof than in the central region thereof and "being connected integrally to said rod tube as a consequence of thermal molding of the rod tube." As Kelly neither teaches nor suggests a guide meeting both of these requirements, we shall not sustain the examiner's rejection of claim 25, or claims 26-30 which depend from claim 25, as being unpatentable over Kelly.

Rejection (2)

In rejecting claim 22 as being unpatentable over Kelly in view of Harada, the examiner implicitly concedes that Kelly lacks a disclosure that the guide is disposed in an annular recess formed on the inner surface of the rod tube as required by the claim, but contends that it would

have been obvious to mount the line guide of Kelly within a recess as shown by Harada to increase the surface area between the rod tube and the line guide to increase the joint strength and reduce stress between these two components (answer, pages 5 and 6). We find no support in the teachings of Kelly and Harada for this contention.

Harada discloses a tubular body 1 having projections 2 formed by winding prepreg 5, comprised of carbon or glass fiber impregnated with resin, around a core 3 and sintering it. While Harada does not expressly discuss the role of the tape 4 illustrated in Figures 2-4, we share the appellants' impression (brief, page 9) that the tape 4 is spirally wrapped around a mandrel to form a core 3 and is removed after the prepreg has been wound about the core and sintered, as shown in Figure 4, leaving a tubular body having on the inner surface thereof a spiral recess corresponding to the outside surface formed by the wrapped tape. The area between the turns of the recess forms the projections 2. From our perspective, the only suggestion for providing the eye and sleeve in the recesses of the tubular body of Harada in the manner proposed by the examiner is found in the luxury of hindsight accorded one who first viewed the appellants' disclosure. This, of course, is not a proper basis for a rejection. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

Therefore, we shall not sustain the examiner's rejection of claim 22.⁹

⁹ We note of interest U.S. Patent No. 5,564,214, issued October 15, 1996 to Tomoyoshi Tsurufuji on application No. 08/318,969, filed October 6, 1994 (prior to the earliest priority date claimed by the appellants under 35 U.S.C. § 119). This reference was cited by the examiner in Paper No. 8 and is of record in the application. The embodiment of Figure 6 appears particularly pertinent to the subject matter of claim 22. This embodiment is
(continued...)

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 4, 5, 8-16, 22, 23 and 25-30 under 35 U.S.C. § 103 is affirmed as to claims 1, 2, 4, 5, 8 and 14-16 and reversed as to claims 9-13, 22, 23 and 25-30. Our affirmance of the decision to reject claims 1, 2, 4, 5, 8 and 14-16 is designated as a new ground of rejection under 37 CFR § 1.196(b).

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b), which provides that, "A new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

⁹(...continued)

directed to an inter-line fishing rod comprising a rod tube 112 having a soft film 113 formed integrally therewith on the inner surface thereof and a guide member 130' including a guide ring 132' and a support element 134' forced into the soft film 113, thereby creating a recessed portion in the soft film (column 6, lines 51-65). As explained in column 5, lines 5-7, the support element is preferably made of a soft material which can absorb the deformation of the middle rod and shocks given from outside.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART; 37 CFR § 1.196(b)

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