

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOLFGANG RIXEN and
GERRIT PIES
Appellants

Appeal 2008-1279
Application 10/475,669
Technology Center 3600

Decided: June 30, 2008

Before JAMESON LEE, SALLY G. LANE, and SALLY C. MEDLEY,
Administrative Patent Judges.

LEE, *Administrative Patent Judge.*

DECISION ON APPEAL

A. Statement of the Case

This is a decision on appeal by an Appellant under 35 U.S.C. § 134(a) from a final rejection of claims 11-20. We have jurisdiction under 35 U.S.C. § 6(b).

References Relied on by the Examiner

Castaño	US 5,964,546	Oct. 12, 1999
Rixen	WO 00/34670	Jun. 15, 2000

The Rejection on Appeal

Claims 11-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 00/34670 in view of Castaño.¹

B. Issue

Has the Appellant shown error in the rejection of claims 11-20.

C. Summary of the Decision

The Appellant has not shown error in the rejection of claims 11-20.

D. Findings of Fact

1. The invention relates to a T-link of two profiled sections comprising a connector having two elongate clamping jaws that can be transversely clamped by a fixation element. (Spec. 1:3-5.)

2. Claim 11 is the sole independent claim and is reproduced below:

11. A T-link of two profiled sections, comprising:

a first profiled section having an end face provided with an inner cavity, wherein the inner cavity has more than two inner webs extending parallel to a longitudinal direction of the first profiled section and distributed uniformly about an inner circumference

¹ The obvious-type double patenting rejections of claims 11-20 have been withdrawn by the Examiner (Supp. Ans. 3:1-7.)

of the inner cavity, wherein the inner webs are positioned diametrically opposite one another;

a second profiled section having an outer surface provided with undercut grooves;

a connector comprising a first and a second elongate clamping jaws with pliers-shaped ends;

the connector having an insertion end opposite the pliers-shaped ends;

the connector further comprising a fixation element, wherein the fixation element is configured to act on the clamping jaws for transversely clamping the clamping jaws such that the pliers-shaped ends close;

wherein the pliers-shaped ends of the clamping jaws of the connector engage the undercut grooves of the outer surface of the second profiled section and wherein the insertion end is inserted into the cavity;

wherein the first clamping jaw has first longitudinal edges and the second clamping jaw has second longitudinal edges, the first and second longitudinal edges extending between the pliers-shaped ends and the insertion end, respectively;

wherein the first longitudinal edges face the second longitudinal edges, respectively, and the first and second longitudinal edges facing one another define together a shape that is complementary to a shape of the inner webs;

wherein the first and second clamping jaws positive-lockingly clamp the inner webs transversely between the first and second longitudinal edges when the fixation element is actuated so that the connector is secured in the longitudinal direction of the first profiled section and the first profiled section is positive-lockingly secured against spreading loads acting in a plane of the inner webs clamped between the clamping jaws. (App. Br. 17, Claims Appendix)

3. WO 00/36470 discloses a T-link of two profile bars.
(Rixen 1:7.)²
4. In WO 00/36470, the link comprises two elongate clamping jaws extending into a hollow cavity of one of the profile bars and clamp inner webs located within that profile bar. (Rixen 1:7-14.)
5. WO 00/36470 discloses that clamping jaws 6 must securely grip the clamping strips 73 of inner webs 10 contained within a profile bar 4. (Rixen 13:21-23.)
6. WO 00/36470 discloses that the inner webs are arranged diametrically opposite each other so that the clamping jaws embrace two of the inner webs at a time. (Rixen 2:31-37.)
7. WO 00/34670 further discloses that the clamping jaws should be centered on the inner webs as positioning of the jaws too far onto one inner web may cause them to fail to grip the other inner web adequately. (Rixen 6:66 to 7:6.)

8. The Examiner found WO 00/34670 to be admitted prior art and determined that document to disclose substantially all of the elements of claim 11. (Supp. Ans. 4:9 to 5:22.)

9. As to the missing elements, the Examiner determined (Supp. Ans. 6:1-3):

However, the admitted prior art does not disclose a T-Link wherein the clamping jaws have coupling ribs and the inner

² US Patent No. 6,505,453 issued January 14, 2003 to Rixen et al. (“Rixen”) is relied upon by the Examiner as an English translation of the WO 00/34670 document. The Appellant does not dispute that Rixen is an accurate English translation of that WO document. When discussing WO 00/34670 in this decision, the references to column and line numbers refer to the US patent to Rixen.

webs have coupling grooves engaging the coupling ribs which are complementary.

10. To supply those missing elements, the Examiner turned to Castaño. (Supp. Ans. 6:4-14.)

11. Castaño discloses an apparatus for interconnecting tubular frame members by means of a split separable joint. (Castaño 1:5-8.)

12. In Castaño, the joint includes a hub 10 with keyed slots 20 that are provided “for receiving and retaining” tubular members 32. (Castaño 3:13-14.)

13. Outwardly facing ribs 36 on the members 32 are provided for mating engagement with the corresponding inwardly facings ribs 24 of the slots 20. (Castaño 3:17-19.)

14. The Examiner reasoned (Supp. Ans. 6:14-19):

Accordingly, it would have been obvious to one of ordinary skill in the art to provide each of the longitudinal edges of the acknowledged prior art with one half the profile as taught by Castano and the inner webs of the acknowledged prior art with the complementary keyed profile as taught by Castano because the coupling ribs and grooves provide a positive-locking interaction that would prevent the clamping jaws from disengaging the inner web of the profiled sections.

E. Principles of Law

Obviousness is a legal determination made on the basis of underlying factual inquiries including (1) the scope and content of the prior art; (2) the differences between the claimed invention and the prior art; and (3) the level of ordinary skill in the art. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17 (1966).

A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR Intern. Co. v. Teleflex, Inc.*, 127 S. Ct. at 1739. If a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Id.* at 1740. A person of ordinary skill in the art is also a person of ordinary creativity, not an automaton. *Id.* at 1742.

A basis to combine teachings need not be expressly stated in any prior art reference. *See In re Kahn*, 441 F.3d 977, 989 (Fed. Cir. 2006). There need only be an articulated reasoning with rational underpinnings to support a motivation to combine teachings. *See Id.* at 988.

F. Analysis

The Appellant argues claims 11-20 collectively as a group. The Appellant disputes that there is sufficient motivation to combine the teachings of the prior art in the manner proposed by the Examiner.

The Examiner found WO 00/34670 to be admitted prior art and determined that document to disclose substantially all of the elements of claim 11 (Supp. Ans. 4:9 to 5:22.) As to the elements missing from WO 00/34670, the Examiner found (Supp. Ans. 6:1-3):

However, the admitted prior art does not disclose a T-Link wherein the clamping jaws have coupling ribs and the inner webs have coupling grooves engaging the coupling ribs which are complementary.

To supply those missing elements, the Examiner turned to Castaño and found (Supp. Ans. 6:4-14):

Castano teaches a joint apparatus having a connector with coupling ribs (20) and structural members having coupling grooves (36) formed between two longitudinal continuous web ribs engaging the coupling ribs, which are complementary and identical in size (Fig. 2); the structural elements having a first thickness where the coupling grooves are located and a second thickness in a connecting area, where the inner webs are connected to the inner circumference of the first profiled section, respectively, wherein the first thickness is substantially identical to the second thickness (Fig 2); the structural elements provided on both sides with the coupling grooves and wherein the clamping jaws are provided on both sides with the coupling ribs (Fig 2). Castano is evidence of the recognition of those of ordinary skill in the art of providing positive locking connections per se.

The Examiner then reasoned (Supp. Ans. 6:14-19):

Accordingly, it would have been obvious to one of ordinary skill in the art to provide each of the longitudinal edges of the acknowledged prior art with one half the profile as taught by Castano and the inner webs of the acknowledged prior art with the complementary keyed profile as taught by Castano because the coupling ribs and grooves provide a positive-locking interaction that would prevent the clamping jaws from disengaging the inner web of the profiled sections.

The Appellant acknowledges, and evidently does not dispute, the Examiner's determination that WO 00/34670 discloses a substantial number of the features of claim 11 (App. Br. 7:2-18.) The Appellant argues that the improvement to that device is found in the following features of claim 11 (App. Br. 7:26 to 8:7):

The first and second clamping jaws have first and second longitudinal edges (94), respectively, that extend between the pliers-shaped ends and the insertion end. The first and second longitudinal edges (94) facing one another define together a shape (see Fig. 2) that is complementary to the shape of the inner webs (10). The first and second clamping jaws (6) positive-lockingly clamp the inner webs

(10, 10') transversely between the first and second longitudinal edges (94) when the fixation element (5) is actuated. The positive-locking transverse clamping action provides that the connector (1) is secured in the longitudinal direction of the first profiled section (by friction) and the first profiled section is positive-lockingly secured against spreading loads acting in a plane of the inner webs (10, 10') clamped between the clamping jaws.

The Appellant also does not dispute that the above-noted features correspond to those features that were found by the Examiner to be lacking from WO 00/34670 but present in Castaño. What the Appellant disputes is the motivation to combine the teachings of Castaño with the teachings of WO 00/34670. The Appellant asserts that there is no motivation found in the prior art themselves to combine those teachings. (App. Br. 12:19-26; Reply Br. 3:30 to 4:1.) The Appellant argues that the Examiner has impermissibly relied upon the problems recognized by the Appellant in practicing the invention of WO 00/34670 and described in the specification (Spec. 1:15 to 2:5) as the motivation to combine the teachings of the prior art (App. Br. 13:4-12; Reply Br. 2:24 to 3:6 and 3:22-28.)

We agree with the Appellant that an inventor's own recognition of a problem cannot be relied upon as the motivation to combine the teachings of the prior art. To the extent the Examiner relied on the Appellant's own motivation, not based on prior art, the reliance is harmless here. The Examiner has also provided a reason for combining the prior art teachings which does not rely on the Appellant's own recognition of the problem.

WO 00/34670 discloses that it is necessary to have an "adequate force fit between the clamping jaws and the inner webs." (Rixen 2:4-5.) WO 00/34670 also discloses that the clamping jaws 6 must be able to securely grip the clamping strips 73 of the inner webs 10. (Rixen 13:17-23.) The

inner webs are arranged diametrically opposite each other so that the clamping jaws embrace two of them at a time. (Rixen 2:31-37.) The Appellant acknowledges that the gripping contact of the inner webs by the clamping jaws applies a force in the longitudinal direction of the profiled section to prevent the link 1 from being pulled out of the profiled section. (App. Br. 12:10-13.) The force-fitting contact is also applied in the longitudinal direction of the clamping webs in order to exclude the possibility of the clamping jaws resting on the inner webs only at points or for short distances. (Rixen 6:39-43.) WO 00/34670 discloses that the clamping jaws should be centered on the inner webs as positioning of the jaws too far onto one inner web may cause them to fail to grip the other inner web adequately. (Rixen 6:66 to 7:6.) Contrary to the Appellant's assertions (App. Br. 12:19-22; Reply Br. 2:15-17), those disclosures in WO 00/34670 suggest that a securing action in the radial direction is desirable in order to maintain the centered positioning of the jaws with respect to the inner webs.

Castaño provides a hub 10 having keyed slots 20 "for receiving and retaining" tubular members 32. (Castaño 3:13-14.) Outwardly facing ribs 36 on the members 32 are provided for mating engagement with the corresponding inwardly facings ribs 24 of the slots 20. (Castaño 3:16-19.)

The Examiner found that the connection of Castaño is one known to prevent movement in a radial direction. (Supp. Ans. 7:20-21.) The Appellant acknowledges that in Castaño the interaction between the slot 20 and member 32 is one that provides a securing action in a radial direction. (App. Br. 1-3; Reply Br. 2:6.)

A combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results. *KSR*, 127 S. Ct. at 1739. If a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Id.* at 1740. Furthermore, a basis to combine teachings need not be expressly stated in any prior art reference. *See In re Kahn*, 441 F.3d at 989. There need only be an articulated reasoning with rational underpinnings to support a motivation to combine teachings. *See id.* at 988.

The Examiner reasoned that a person of ordinary skill in the art would have been led to combine the clamping jaws taught in WO 00/34670 that are friction fit to prevent motion in a longitudinal direction with the known retaining connection of Castaño to prevent movement in a radial direction. (Supp. Ans. 7:20-8:5.) The Examiner's reasoning is rational and is consistent with the above-noted teachings of both prior art references. The Appellant has not shown error in that reasoning.

The Appellant also argues that there is no need to incorporate an additional radial securing action in WO 00/34670 because when the clamping jaws are inserted into the bar they cannot move radially as they are already enclosed by the wall of the bar. (Reply Br. 2:12-14.) However, the evidence does not support that conclusion. WO 00/34670 provides that the clamping jaws exclusively clamp the inner webs such that there is no need for contact with the inner walls of the profile bar. (Rixen 1:62-64.) Further, Figure 13 of WO 00/34670 clearly shows the clamping jaws 6 spaced from the walls of the bar 4. Based on those teachings, we reject the Appellant's

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argument that the clamping jaws are “enclosed” by the profile bar wall in a manner that would prohibit any radial movement or foreclose any modification of WO 00/34670 that secures the clamping jaws against motion in a radial direction.

The Examiner determined that the combination of WO 00/34670 and Castaño satisfies the Appellant’s claims 11-20. Given all the above, we do not find that any error has been shown in that determination. We sustain the rejection of claims 11-20 under 35 U.S.C. § 103(a) as being unpatentable over WO 00/34670 in view of Castaño.

G. Conclusion

The rejection of claims 11-20 under 35 U.S.C. § 103(a) as unpatentable over WO 00/34670 in view of Castaño is **affirmed**.

FURTHER ORDERED that no time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

rvb

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