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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YOSHIKI TANAKA, NAOTAKA ARISAWA,
NAOHIRO TAKEMOTO, and HIDEYUKI MORII

Appeal 2017-010557
Application 13/261,885
Technology Center 3600

Before BENJAMIN D. M. WOOD, NATHAN A. ENGELS, and
PAUL J. KORNICZKY, *Administrative Patent Judges*.

KORNICZKY, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Under 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision, as set forth in the Final Office Action dated June 10, 2016 ("Final Act."), rejecting claims 1–6. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

THE CLAIMED SUBJECT MATTER

The claims are directed to a welding connection structure for pipes. Claim 1, the only independent claim on appeal, is reproduced below with disputed limitations italicized for emphasis:

1. A welding connection structure comprising:

a pipe having, a double-pipe portion at at least one end thereof, the double-pipe portion having an outer pipe wall as a pipe wall of the pipe and an inner pipe wall, which is a part of the pipe wall, is arranged by bending back inward, and is connected to the outer pipe wall via a bent back portion,

wherein in the structure, the double pipe portion of the pipe is connected by welding to a mating member, to which the pipe is to be connected, while the pipe is inserted into the mating member.

REFERENCES

In rejecting the claims on appeal, the Examiner relied upon the following prior art:

Fukae	JP 10266834	Oct. 6, 1998
Koinuma	JP 2006242033	Sept. 14, 2006

¹ Futaba Industrial Co., Ltd. ("Appellant") is the applicant pursuant to 37 C.F.R. § 1.46, and is identified as the real party in interest. Appeal Brief, dated February 9, 2017 ("Appeal Br."), at 2.

REJECTIONS

The Examiner made the following rejections:

1. Claims 1–6 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.
2. Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Fukae.
3. Claims 1–6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Koinuma and Fukae.

Appellant seeks our review of these rejections.

DISCUSSION

Rejection 1: Claims 1–6 as Being Indefinite

Because Appellant does not address Rejection 1, the rejection of claims 1–6 is summarily sustained.

Rejection 2: Claim 1 as Anticipated By Fukae

Because Appellant does not address Rejection 2, the rejection of claim 1 is summarily sustained.

Rejection 3: Claims 1–6 as Unpatentable Over Koinuma and Fukae

Claim 1

The Examiner finds that Koinuma discloses all limitations of claim 1 except for a double-pipe portion at at least one end thereof, the double-pipe portion having an outer pipe wall as a pipe wall of the pipe and an inner pipe wall, which is a part of the pipe wall, is arranged by bending back inward,

and is connected to the outer pipe wall via a bent back portion. Final Act. 7. The Examiner, however, finds that Fukae discloses this missing limitation. *Id.* The Examiner determines that it would have been obvious to one having ordinary skill to have modified Koinuma's device to have a double-pipe portion that includes (a) an outer pipe wall and (b) an inner pipe wall, that is a part of the pipe wall, is arranged by bending back inward, and is connected to the outer pipe wall via a bent back portion, as taught by Fukae

for the purpose of providing a means [1] to increase the strength or rigidity of a portion of a pipe, or [2] to add additional material at the welding/welded portion of the pipe to better dissipate the welding heat or [3] to add additional material at the welding/welded portion of the pipe to aid in preventing weld melt through, or [4] to provide a structure which would have yielded the same predictable result of allowing to [sic, two] components to be welded together.

Final Act. 8.

Appellant contends that the Examiner's rejection is erroneous for several reasons. First, Appellant contends that "Fukae itself provides no disclosure, teaching, or suggestion that tubular member **19** is provided for any of these particular purposes." Appeal Br. 8. According to Appellant, "Fukae only discloses that tubular member **19** is to be interposed between an inner tube **13** and an outer pipe **11** *of an exhaust pipe having a double pipe structure* to prevent the fusion of inner tube **13** to outer pipe **11** by a weld bead" and "Fukae is provided to solve a problem that is not relevant to the structure disclosed by Koinuma (i.e., to create a non-fused connection between inner and outer pipes of a double-pipe structure)." *Id.*

Contrary to Appellant's argument, an express teaching or motivation in the references is not required. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S.

398, 418 (2007). Instead, the Examiner need only articulate a reason to combine the references with some rational underpinning to support the legal conclusion of obviousness. *Id.* Here, the Examiner reasons that it would have been obvious to one having ordinary skill in the art to use Fukae's double-wall pipe in Koinuma's pipe "to increase the strength or rigidity of a portion of a pipe," "to add additional material at the welding/welded portion of the pipe to better dissipate the welding heat," "to add additional material at the welding/welded portion of the pipe to aid in preventing weld melt through," or "to provide a structure which would have yielded the same predictable result of allowing to [sic] components to be welded together." Final Act. 8. Appellant does not address the Examiner's articulated reasoning for combining Koinuma and Fukae and, thus, does not identify error by the Examiner.

Second, Appellant summarily contends that "the Examiner's hindsight rationalization of why such a double-pipe portion would be incorporated into the exhaust pipe joint structure of Koinuma is inappropriate." *Id.* Appellant, however, does not persuasively identify any knowledge relied upon by the Examiner that was gleaned only from Appellant's disclosure and that was not otherwise within the level of ordinary skill at the time of the invention, thereby obviating Appellant's assertion of hindsight. *See In re McLaughlin*, 443 F.2d 1392, 1395 (CCPA 1971). Thus, Appellant does not apprise us of error.

For the reasons above, the rejection of claim 1 is sustained.

Claim 2

As to the rejection of claim 2, the Examiner finds that Koinuma as modified by Fukae discloses a pipe that

is configured such that at least a part of the double-pipe portion has a larger outer diameter than another part and such that a tapered portion in a tapered shape is formed between a large-diameter portion comprising at least a part of the double-pipe portion and a small-diameter portion comprising a portion having a smallest outer diameter in the pipe wherein at least a part of the tapered portion is formed of the double-pipe portion.

Final Act. 8–9.

The Examiner explains that a “specific length (of the inner pipe wall's length) of an inner pipe increases the strength or rigidity of a portion of a pipe (the portion containing a double-pipe/wall), or better dissipates the welding heat or aids in preventing weld melt through.” *Id.* at 9. The Examiner determines that it would have been an obvious matter of design choice to have had a large-diameter portion comprising at least a part of the double-pipe portion and a small diameter portion comprising a portion having a smallest outer diameter in the pipe wherein at least a part of the tapered portion is formed of the double-pipe portion:

for the purpose of providing a means to increase the strength or rigidity of a portion of a pipe, or to add additional material at the welding/welded portion of the pipe to better dissipate the welding heat or to add additional material at the welding/welded portion of the pipe to aid in preventing weld melt through, or to provide a structure which would have yielded the same predictable result of allowing to [sic] components to be welded together, since such a modification would have involved a mere change in the size and/or proportion of a component.

Id.

Appellant contends that the Examiner's findings and reasoning are erroneous because "the difference between the recited configuration of the welding connection structure and that of the proposed combination of the teachings of Koinuma and Fukae is more than merely a difference in degree and/or size of a component (e.g., a length of the inner pipe wall)." Appeal Br. 9. According to Appellant, Fukae discloses a "straight-sided outer tube 11 and tubular member 19 and Koinuma fails to disclose a double-pipe portion at all, the welding connection structure recited in claim 2 provides for a double-pipe portion that is shaped so that it extends along with the outer pipe wall to form a tapered portion." *Id.* Appellant also asserts that Fukae's tapered pipe portion on inner pipe 13 is incompatible with Fukae's double-pipe portion. *Id.* at 10.

Appellant, however, is attacking the teachings of Koinuma and Fukae individually. Nonobviousness cannot be established by attacking the references individually when the rejection is predicated upon a combination of prior art disclosures. *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Here, the Examiner finds that Koinuma, not Fukae, discloses a tapered pipe and Fukae, not Koinuma, discloses the double-pipe portion. Final Act. 7–9. The Examiner proposes adding Fukae's double-pipe portion to Koinuma's tapered pipe, and, contrary to Appellant's argument, the Examiner does not propose adding Fukae's tapered inner pipe 13 to Koinuma's tapered pipe. Appellant's argument does not address the rejection as articulated by the Examiner, and, thus, does not identify error by the Examiner.

For the reasons above, the rejection of claim 2 is sustained.

Claims 3, 4, and 6

As discussed above, we sustain the Examiner's rejection of claim 1. Because Appellant does not argue claims 3, 4, and 6 apart from claims 1 and 2, or allege any other patentable distinctions for claims 3, 4, and 6, we likewise sustain the Examiner's rejections of these claims.

Claim 5

As to the rejection of claim 5, the Examiner finds that "Koinuma as modified by Fukae appear[s] to disclose a tapered portion having a taper angle (theta) approximately approaching 20 degrees but the exact angle (or angle range) appears not to be disclosed." Final Act. 11.

Appellant contends that the Examiner's rejection of claim 5 is erroneous because "the tapered portion having a taper angle of less than 20 degrees contradicts the express teaching of Koinuma. In particular, Koinuma discloses in paragraph [0007] that a taper angle of between 20-60 degrees achieves the desired stress distribution." Appeal Br. 11.

In response to Appellant's argument, the Examiner correctly explains that paragraph 7's reference to a taper angle of 20–60 degrees "is merely a preference and could encompass other angles." Ans. 11. We agree. As the Examiner correctly explains, other portions of Koinuma disclose that the taper angle could be "about 20 degrees" and "is preferably 20 degrees to 60 degrees." Ans. 11 (quoting Koinuma ¶ 14). Thus, the rejection of claim 5 is sustained.

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DECISION

For the above reasons, the Examiner's rejections of claims 1–6 are AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED