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Davidson, Davidson & Kappel, LLC 589 8th Avenue 22nd Floor New York, NY 10018			SMITH, CATHERINE P	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARIE-THÉRÈSE PERROT-SIMONETTA,
BERNARD RESIAK, and ULRICH VOLL

Appeal 2023-000358
Application 15/560,468
Technology Center 1700

Before TERRY J. OWENS, CATHERINE Q. TIMM, and LILAN REN,
Administrative Patent Judges.

Opinion for the Board filed by REN, *Administrative Patent Judge.*

Opinion Concurring filed by OWENS, *Administrative Patent Judge.*

REN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner’s decision to reject claims 17–31 and 37–42. *See* Final Act. 3, 12, 13. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as ArcelorMittal. Appeal Br. 2. Appellant is reminded of its obligation to update its real party in interest information within 20 days of any change during the appeal. *See* 37 C.F.R. § 41.8(a).

CLAIMED SUBJECT MATTER

Claim 17, reproduced below, illustrates the claimed subject matter:

17. A part comprising:
a composition including, with the contents being expressed as weight-percent:
 $0.010 \leq C \leq 0.30$,
 $1.6 \leq Mn \leq 2.1$,
 $0.5 \leq Cr \leq 1.7$,
 $0.5 \leq Si \leq 1.0$,
 $0.065 \leq Nb \leq 0.15$,
 $0.0010 \leq B \leq 0.0050$,
 $0.0010 \leq N \leq 0.0130$,
 $0 \leq Al \leq 0.060$,
 $0 \leq Mo \leq 1.00$,
 $0 \leq Ni \leq 1.0$,
 $0.01 \leq Ti \leq 0.07$,
 $0 \leq V \leq 0.3$,
 $0 \leq P \leq 0.050$,
 $0.01 \leq S \leq 0.1$,
 $0 \leq Cu \leq 0.5$,
 $0 \leq Sn \leq 0.1$; and
a balance of the composition including iron and unavoidable impurities resulting from processing; and
a microstructure including, in surface proportions, from 100% to 70% bainite, less than 30% of residual austenite, and less than 5% ferrite;
wherein the part exhibits a mechanical strength greater than or equal to 1100 MPa, an elastic limit greater than or equal to 700 MPa, and a breaking elongation greater than or equal to 12%, with a constriction at break greater than 30%.

REFERENCES

The Examiner relies on the following references to reject the claims:

Name	Reference	Date
Resiak	US 2007/0051434 A1	Mar. 8, 2007
Hammer	US 2015/0203946 A1	July 23, 2015
Han	US 2015/0322553 A1	Nov. 12, 2015

Goto	US 2017/0362678 A1	Dec. 21, 2017
Gao	CN 102747272	Aug. 27, 2014

REJECTIONS²

The Examiner maintains the following rejections:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis
17–31, 40–42	103	Gao, Resiak, Han
37	103	Gao, Resiak, Han, Hammer
38, 39	103	Gao, Resiak, Han, Goto

OPINION

The Examiner finds that Gao teaches a bainite steel pipe having a composition with elements overlapping those recited in claim 17. Final Act. 4. Acknowledging that “Gao is silent towards a constriction at break value,” the Examiner reasons that given “the composition, microstructure, and other mechanical properties claimed are obvious over Gao,” a skilled artisan would have found it obvious that the prior art steel in Gao also exhibits the recited constriction break value. *Id.* at 5–6. The Examiner additionally cites Resiak and Han for teaching “similar” but not identical prior art compositions exhibiting the recited constriction break value. *Id.*

[I]t is elementary that the mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to those things to distinguish over the prior art. . . .

. . . .

Where . . . the claimed and prior art products are identical or substantially identical . . . the PTO can require an applicant

² The Examiner withdraws the following rejections: claims 17–31 and 37 over Matsuda, Gao, and Han; claims 38 and 39 over Matsuda, Gao, Han, and Goto; and claim 40 over Matsuda, Gao, Han, and Hammer. Ans. 12. These rejections are therefore not before us.

to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on “inherency” under 35 U.S.C. § 102, on ‘prima facie obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products.

In re Best, 562 F.2d 1252, 1254–55, (CCPA 1977).

In this case, the record before us does not establish that the prior art is identical or substantially identical to the recited composition such that the recited properties are necessarily present in the prior art composition. For example, the Examiner finds that the prior art composition in Gao exhibits “st[r]ength in tension 500-2500MPa, yield strength 400-2000MPa” (Gao ¶ 20 (cited in Final Act. 5)) which overlaps with but does not entirely encompass the recited mechanical strength range. The record before us does not contain sufficient evidence as to why Gao’s genus of prior art compositions would necessarily exhibit the recited range of constriction break value. Nor does the Examiner point to a particular composition within Gao that would inherently have a constriction at break within the claimed range. The Examiner acknowledges that Resiak and Han each discloses a composition that is not identical to that recited. The record before us therefore does not support the Examiner’s finding that the composition having the properties that claim 17 recites is rendered obvious in view of the combined prior art teaching.

CONCLUSION

The Examiner’s rejections are REVERSED.

DECISION SUMMARY

The following table summarizes our decision:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
17–31, 40–42	103	Gao, Resiak, Han		17–31, 40–42
37	103	Gao, Resiak, Han, Hammer		37
38, 39	103	Gao, Resiak, Han, Goto		38, 39
Overall Outcome				17–31, 37–42

REVERSED

OWENS, *Administrative Patent Judge*, concurring:

Examiner finds that Gao discloses steel containing the components required by Appellant's claim 17 in amounts overlapping the component amounts in that claim (Final 4). Examiner also finds that "Gao discloses mechanical strength greater than or equal to 1100 MPa, an elastic limit greater than or equal to 700 MPa, and an elongation 30% or larger ('strength in tension 500-2500MPa, yield strength 400-2000MPa' [0020]; 'elongation 30% or more' [0023]'" (Final 5).

The mechanical strength relied upon by Examiner is Gao's "strength in tension," which is reported by Gao as a range of 500–2500 MPa (Final 5; Gao (¶ 20)). The elastic limit relied upon by Examiner is Gao's "yield strength," which is reported by Gao as a range of 400–2000 MPa (*id.*). Examiner does not explain how Gao would have led one of ordinary skill in the art to a steel having, in combination, claim 17's components and component amounts, mechanical strength greater than or equal to 1100 MPa, and elastic limit greater than or equal to 700 MPa.

Regarding claim 17's requirement of a constriction at break greater than 30%, Examiner concludes that "the composition, microstructure, and other mechanical properties claimed are obvious over Gao, and it would have been obvious therefore to one of ordinary skill in the art that the steel of Gao also comprise the claimed constriction at break values" (Final Act. 5–6).

That conclusion is unavailing because Examiner does not establish that Gao would have led one of ordinary skill in the art to steel having claim 17's required combination of composition, microstructure, and other mechanical properties.

Examiner relies upon Resiak and Han for disclosures of steel having a constriction at break greater than 30% (Final 6–7).

Examiner does not address the compositional and manufacturing process differences among Gao, Resiak, and Han, and establish that regardless of those differences, those references would have led one of ordinary skill in the art to combine their disclosures in a way that results in a steel meeting the requirements of Appellant’s claim 17.

Thus, the record indicates Examiner used impermissible hindsight in rejecting Appellant’s claims. *See In re Warner*, 379 F.2d 1011, 1017 (CCPA 1967) (“A rejection based on section 103 clearly must rest on a factual basis, and these facts must be interpreted without hindsight reconstruction of the invention from the prior art.”). Accordingly, I concur in the majority’s decision to reverse the rejections.