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THE GOODYEAR TIRE & RUBBER COMPANY 200 Innovation Way AKRON, OH 44316-0001			DYE, ROBERT C	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ETIENNE SCHAUER, ROBERT EDWARD LIONETTI,
ARUN PRASATH MANOGARAN, BORIS ERCEG, and
SOUNDAPPAN RAMANATHAN

Appeal 2019-002624
Application 15/384,686
Technology Center 1700

Before MARK NAGUMO, JEFFREY B. ROBERTSON, and
BRIAN D. RANGE, *Administrative Patent Judges*.

ROBERTSON, *Administrative Patent Judge*.

DECISION ON APPEAL¹

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1, 2, 5, 6, 9, and 10. *See* Appeal Br. 7–8. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Appellant states the invention relates to a pneumatic tire having a single carcass reinforced with high strength metallic cords. Spec. ¶ 1. Claim 1, reproduced below, is illustrative of the claimed subject matter (Appeal Br. 11, Claims Appendix):

1. A pneumatic tire comprising:
 - a pair of beads each with an associated bead core and chafer;
 - a single carcass ply folded about each bead so as to define a main body portion and a turnup portion associated with each bead, the turnup portions being in contact with the main body portions and extending to an end point radially outward of the bead cores, as measured along the main body portions of the single carcass ply;
 - an apex for stiffening the areas adjacent the bead cores;

¹ This Decision includes citations to the following documents: Specification filed December 20, 2016 (“Spec.”); Final Office Action mailed September 19, 2018 (“Final Act.”); Appeal Brief filed September 20, 2018 (“Appeal Br.”); and Examiner’s Answer mailed December 14, 2018 (“Ans.”).

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as The Goodyear Tire & Rubber Company. Appeal Br. 3.

a toe guard disposed on an axially inner side of the main body portion of the single carcass ply at a location radially outward of the bead cores; and

a tread disposed radially outward from the single carcass ply, the tread having shoulder portions disposed at axial outer edges of the tread; and a pair of sidewalls extending radially outward from each chafer to a location adjacent each shoulder portion, each sidewall being disposed axially outward of the single carcass ply,

the single carcass ply being reinforced with metallic cords, the metallic cords comprising filaments with diameters from 0.07 mm to 0.12 mm, each metallic cord having a number of filaments ranging from 6 to 7.

Claim 10 is also independent and recites a method for improving a pneumatic tire including reinforcing a single carcass ply with steel cords.
Id. at 12.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Lamontia et al. hereinafter “Lamontia”	US 2015/0136294 A1	May 21, 2015
Obana	US 6,530,410 B1	March 11, 2003
Galante et al. hereinafter “Galante”	US 4,941,523	July 17, 1990
Lesti et al. hereinafter “Lesti”	US 4,930,560	June 5, 1990
Henley	US 3,475,254	October 28, 1969

REJECTIONS

1. The Examiner rejected claims 1, 2, 5, and 6 under 35 U.S.C. § 103 as obvious over Lamontia and Obana.
2. The Examiner rejected claims 1, 2, 5, 6, and 9 under 35 U.S.C. § 103 as obvious over Lamontia, Obana, and Galante.
3. The Examiner rejected claim 10 under 35 U.S.C. § 103 as obvious over Obana, Henley, Lesti, and Galante.

Final Act. 2–6.

Appellant presents separate arguments with respect to claims 1 and 10. Appeal Br. 5–10. We select claims 1 and 10 as representative for disposition of this rejection. 37 C.F.R. § 41.37(c)(1)(iv).

OPINION

Rejection 1

The Examiner's Rejection

The Examiner found Lamontia discloses a pneumatic tire as recited in claim 1 including the use of steel in a carcass ply. Final Act. 2. The Examiner found Obana discloses a tire having a single carcass ply using a steel cord in order to suppress deterioration in durability of the carcass, decrease tire weight, and improve riding comfort and controllability. *Id.* The Examiner determined it would have been obvious to have configured the carcass ply of Lamontia with a steel chord as taught by Obana in order to enhance durability, riding comfort, and weight reduction. *Id.* at 3.

Appellant's Contentions

Appellant argues the combination of Lamontia and Obana does not disclose or suggest a pneumatic tire as recited in claim 1, the Examiner has relied on hindsight, provided no factual basis, and the combination would have been unpredictable. (Appeal Br. 5–6.)

Issue

The dispositive issue is:

Has Appellant identified reversible error in the Examiner's determination that the pneumatic tire recited in claim 1 would have been obvious in view of Lamontia and Obana?

Discussion

We are not persuaded by Appellant's arguments. Although Appellant makes general allegations the Examiner has not provided sufficient rational underpinnings to support the combination of Lamontia and Obana and Lamontia and Obana do not disclose or suggest a pneumatic tire as recited in claim 1, Appellant does not meaningfully address the prior art references or the Examiner's rejection.

That is, as discussed above, the Examiner found Lamontia discloses a pneumatic tire having the limitations recited in claim 1, including the use of steel in the carcass ply. Final Act. 2 (citing Lamontia ¶¶ 12, 13, Fig. 2); Ans. 3–4. The Examiner found Obana discloses specifically the use of steel cords in a single carcass ply of a tire improves durability of the carcass, decreases tire weight, and improves riding comfort and controllability. Final Act. 2–3 (citing Obana col. 1, ll. 52–59, col. 2, l. 61 – col. 3, l. 11, Tables 1,

2, Exs. 12, 13, Fig. 1); Ans. 4. Thus, the Examiner's reasoning to modify Lamontia to include steel cords in a single carcass ply as disclosed in Obana is specifically to obtain the advantages disclosed in Obana. Accordingly, Appellant's bare allegation that the Examiner has provided "no support" for the combination (Appeal Br. 6) is simply without merit.

Similarly, Appellant's arguments that modifying the tire of Lamontia by the teachings of Obana "cannot be predicted" and a "pneumatic tire is much more complex and unpredictable" (*id.*), are not sufficiently explained, and as such are unpersuasive in view of the Examiner's well explained reasons, which are supported by the prior art, for including the steel cords of Obana in the single carcass ply of Lamontia.

Therefore, we affirm the Examiner's rejection of claims 1, 2, 5, and 6 as obvious over Lamontia and Obana.

Rejection 2

In rejecting claims 1, 2, 5, 6, and 9 as obvious over Lamontia, Obana, and Galante, the Examiner made similar findings with respect to Lamontia and Obana as discussed above with respect to Rejection 1. Final Act. 3–4. The Examiner found Lamontia discloses chafers, toe guards and flippers and Galante, which is also directed to a tire, discloses chafers that protect the tire from premature damage, toe guards in order to provide rigidity of the bead area and resistance to damage during mounting and dismounting of the tire, and a flipper in order to lock annular members of the bead core and provide rigidity to the lower bead and sidewall area. *Id.* at 4 (citing Lamontia ¶ 12; Galante, col. 4, ll. 10–21, 22–35, 48–53). As a result, the Examiner

determined that it would have been obvious to have provided the beads of Lamontia with chafers, toe guards, and flippers. *Id.*

Appellant relies on similar arguments with respect to Lamontia and Obana as discussed above for Rejection 1. Appeal Br. 6. Appellant presents a similar line of argument for the combination of Lamontia and Galante. *Id.* at 6–7.

We are not persuaded by Appellant’s arguments with respect to Lamontia and Obana for the reasons discussed above. Regarding Appellant’s arguments with respect to Lamontia and Galante, Appellant’s arguments are similarly lacking in specificity in addressing the particular positions set forth by the Examiner, which are well supported by the prior art of record as discussed above.

As a result, we affirm the Examiner’s rejection of claims 1, 2, 5, 6, and 9 as obvious over Lamontia, Obana, and Galante.

Rejection 3

In rejecting claim 10 as obvious over Obana, Henley, Lesti, and Galante, the Examiner found Obana discloses a pneumatic tire having a single carcass ply folded about a pair of beads to define a main body, a tread radially outward from the single carcass ply, a pair of sidewalls, where the single carcass ply is reinforced with steel cord. Final Act. 5. The Examiner found Obana does not expressly describe the steps of folding, placing, and extending, it would have been obvious to have formed the tire in accordance with the method recited in claim 10, because Henley discloses steps for building a tire where the carcass ply is folded about a pair of beads, a tread is placed on the main body, and sidewalls and chafer strips are stitched onto

the tire. *Id.* (citing Henley, col. 12, l. 44 – col. 13, l. 70). The Examiner determined “[o]ne would have been motivated to employ a well-known and conventional tire manufacturing method known to be suitable for building a tire to form the tire of Obana.” *Id.* The Examiner found Obana does not disclose turnups portions in contact with the main portion as claimed, but Lesti, which is also directed toward a pneumatic tire, discloses configuring the carcass ply turnups to join the end portion to the outer surface of a center portion of the body ply in order to reduce the need for bead filler. *Id.* (citing Lesti col. 1, l. 62 – col. 2, l. 11). Thus, the Examiner determined it would have been obvious to have configured the tires such that the turnup portions are in contact with the main portion. *Id.* The Examiner found Obana does not expressly disclose providing toe guard and chipper structures. *Id.* Galante, which is also directed to a tire, discloses toe guards in order to provide rigidity of the bead area and resistance to damage during mounting and dismounting of the tire, and a chipper disposed outside of a carcass ply in order to disperse stresses at the carcass ply ending and add stability to the tire sidewall. *Id.* at 5–6 (citing Galante, col. 4, ll. 1–9, 22–35). As a result, the Examiner determined that it would have been obvious to have provided the beads of Obana with toe guard and chipper structures. *Id.*

Similar to the above lines of arguments for Rejections 1 and 2, Appellant contends generally that the Examiner has provided no factual or rational underpinnings to support the rejection, and the results of modifying the method cannot be predicted. Appeal Br. 8–9. We are not persuaded by these arguments, because they amount to no more than general allegations and do not meaningfully address the prior art or the Examiner’s well-stated rejection discussed above.

Accordingly, we affirm the Examiner's rejection of claim 10 as obvious over Obana, Henley, Lesti, and Galante.

CONCLUSION

The Examiner's rejections of claims 1, 2, 5, 6, 9, and 10 under 35 U.S.C. § 103 are affirmed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 5, 6	103	Lamontia, Obana	1, 2, 5, 6	
1, 2, 5, 6, 9	103	Lamontia, Obana, Galante	1, 2, 5, 6, 9	
10	103	Obana, Henley, Lesti, Galante	10	
Overall Outcome			1, 2, 5, 6, 9, 10	

TIME PERIOD FOR RESPONSE

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