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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte E. BRUCE COLBY, DIMITRI G. TSIHLAS, and
CESAR E. ZARAK

Appeal 2019-000683
Application 14/389,203
Technology Center 1700

Before BRADLEY R. GARRIS, MARK NAGUMO, and
LILAN REN, *Administrative Patent Judges*.

GARRIS, *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 1, 3–5, 7–9, 11–15, 17, 18, 22, and 26–30. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ 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 Compagnie Generale des Etablissements Michelin and Michelin Recherche et Technique S.A. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to a precured tire tread comprising a tread thickness, a longitudinal groove 16 extending into the tread thickness, and a plurality of strengthening members 24 forming protrusions extending into the longitudinal groove from the groove bottom, the strengthening members being arranged every 10 mm or less along a length of the longitudinal groove (independent claim 1, Figs. 2–5). Appellant also claims a method for forming such a precured tire tread (remaining independent claim 22). Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A precured tire tread comprising:
 - a tread thickness bounded by a top side and a bottom side and opposing lateral sides, the tire tread bottom side configured to be attached to an annular tire carcass;
 - a longitudinal groove extending into the tread thickness from the tread top side and terminating within a thickness of the tread at a groove bottom, the longitudinal groove having a width defined by a pair of opposing sides and the groove bottom being spaced from the bottom side of the tread by an undertread thickness, where the undertread thickness is equal to 1.5 mm or less; and,
 - a plurality of strengthening members forming protrusions extending into the longitudinal groove from the groove bottom and from at least one side of the pair of opposing groove sides, the plurality of strengthening members being arranged every 10 mm or less along a length of the longitudinal groove.

REJECTIONS

Under pre-AIA 35 U.S.C. § 103(a), the Examiner rejects claims 1, 3–5, 7–9, 11–15, 17, 18, 22, and 26–29 as unpatentable over Japan 622 (2002-067622, published Mar. 8, 2002, as translated) in view of any one of Burche (US 4,353,402, issued Oct. 12, 1982), Hoke (US 3,727,661, issued Apr. 17, 1973), German 930 (DE 102007016930 A1, published Oct. 9, 2008, as

translated), Godefroid (US 2005/0126670 A1, published June 16, 2005), Korea 022 (KR2002-0003022, published Jan. 10, 2002, as translated) or Suzuki (US 2009/0194213 A1, published Aug. 6, 2009) and rejects claim 30 over these references in combination with Japan 010 (JP 08-268010, published Oct. 15, 1996).²

OPINION

We sustain the § 103 rejections for the reasons given in the Final Office Action, the Examiner's Answer, and below.

In rejecting representative claim 1, the Examiner finds that Japan 622 discloses a precured tire tread comprising a tread thickness having a longitudinal groove but does not disclose strengthening members forming protrusions extending into the longitudinal groove as claimed (Final Act. 3–8). The Examiner finds that the secondary references applied in rejecting claim 1 teach providing a longitudinal groove in a tire tread with protrusions for a variety of purposes and concludes that it would have been obvious to provide the longitudinal groove of Japan 622 with protrusions of the type and for the purpose taught by each of the alternatively applied secondary references (*id.* at 5–7). The Examiner additionally finds that the secondary references teach spacing their protrusions every 10 mm or less along the longitudinal groove length and concludes that it would have been obvious to

² Appellant presents the same arguments regarding independent claims 1 and 22 but does not present separate arguments specifically directed to the dependent claims under rejection (Appeal Br. 11–14). Therefore, we select claim 1 as representative of the issues before us, and the remaining claims under rejection will stand or fall with this representative claim.

so-space the protrusions of modified Japan 622 as taught by each of these alternatively applied secondary references (*id.* at 7–8).

Appellant argues “adding the claimed strengthening members [i.e., protrusions] to the groove bottom would be contrary to the purpose of *Japan 622*” (Appeal Br. 12). Appellant states that Japan 622 makes the groove depth deeper than was conventional in order to achieve a reduced undertread thickness without removing material from the bottom of the undertread (*id.* (citing Japan 622 ¶ 17)). Appellant argues “one of ordinary skill would not add any projections corresponding to the claimed strengthening members as the addition of the projections would result in adding material that was previously removed during the molding process (*i.e.*, material at the bottom of the groove in order to achieve the reduced undertread thickness)” (*id.*).

In the rejection, the Examiner finds “Japan 622 teaches that the undertread thickness is the distance from the deepest part of the groove to the back side of the precured tread and that the depth of the deepest part of the groove is unchanged by the protrusions suggested by [each of the secondary references]” (Final Act. 6–7). The Examiner responds to Appellant’s arguments by reiterating these findings (Ans. 14–15, 17). The Examiner emphasizes that “[w]hen Japan 622’s longitudinal groove is provided with protrusions as per . . . [each of the secondary references], the undertread thickness is determined by the distance between the deepest part of the groove and the back surface of the precured tread **instead of** the distance between the upper surface of the protrusions and the back surface of the precured tread [as implied by Appellant]” (*id.* at 17).

Appellant replies to the Examiner’s position with the argument that “by adding strengthening members [i.e. protrusions] along the groove

bottom [of Japan 622], locally, the groove bottom thickness is increased at the location of each strengthening member, which in effect reverses and counteracts the benefits achieved by *Japan 622*” (Reply Br. 3).

Appellant does not contest the Examiner’s findings that Japan 622 teaches undertread thickness is determined from the deepest part of the groove (*see* JP 622 claim 1, ¶ 6) and that the depth of this deepest part would be unchanged by the addition of protrusions (*see generally* Appeal Br., Reply Br.). In addition, we observe that Appellant offers no evidence in support of the arguments that protrusions in Japan 622’s longitudinal groove “would be contrary to the purpose of *Japan 622*” (Appeal Br. 12) or “reverses and counteracts the benefits achieved by *Japan 622*” (Reply Br. 3). On the other hand, the Examiner’s uncontested findings support a determination that, because the benefits of Japan 622’s reduced undertread thickness are achievable despite the presence of groove parts less deep than the deepest groove part, these benefits likewise would be achievable despite the presence of groove protrusions whose upper surfaces are less deep than the deepest groove part.

Appellant also argues without elaboration that, even if the longitudinal grooves of Japan 622 were provided with protrusions, “such projections [i.e., protrusions] do not amount to the claimed strengthening members at least in frequency to operate as strengthening members” (Appeal Br. 14).

However, this argument does not address, and therefore does not show error in, the Examiner’s rationale for concluding that it would have been obvious to space the protrusions with the claimed frequency of every 10 mm or less (Final Act. 7–8).

For the reasons given above and expressed in the Final Office Action and the Examiner's Answer, Appellant's arguments fail to demonstrate reversible error in the rejections of representative claim 1 and the other claims before us.

CONCLUSION

We affirm the Examiner's decision to reject claims 1, 3-5, 7-9, 11-15, 17, 18, 22, and 26-30.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3-5, 7-9, 11-15, 17, 18, 22, 26-29	103(a)	Japan 622, Burche, Hoke, German 930, Godefroid, Korea 022, Suzuki	1, 3-5, 7-9, 11-15, 17, 18, 22, 26-29	
30	103(a)	Japan 622, Burche, Hoke, German 930, Godefroid, Korea 022, Suzuki, Japan 010	30	
Overall Outcome			1, 3-5, 7-9, 11-15, 17, 18, 22, 26-30	

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).

Appeal 2019-000683
Application 14/389,203

AFFIRMED