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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEFAN SCHACHNER

Appeal 2018-005193¹
Application 14/711,051
Technology Center 3700

Before MICHAEL L. HOELTER, BRETT C. MARTIN, and
LEE L. STEPINA, *Administrative Patent Judges*.

STEPINA, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 10–23.³ We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART and enter NEW GROUNDS OF REJECTION pursuant to 37 C.F.R. § 41.50(b).

¹ A hearing was conducted on December 19, 2019.

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Raimund Beck Nageltechnik GmbH. Appeal Br. 3.

³ Claims 1–9 are cancelled. Appeal Br. 23 (Claims App.).

CLAIMED SUBJECT MATTER

Appellant's disclosure "relates to attachment means, in particular a screw nail, for connecting plane components in dry construction." Spec. 1.

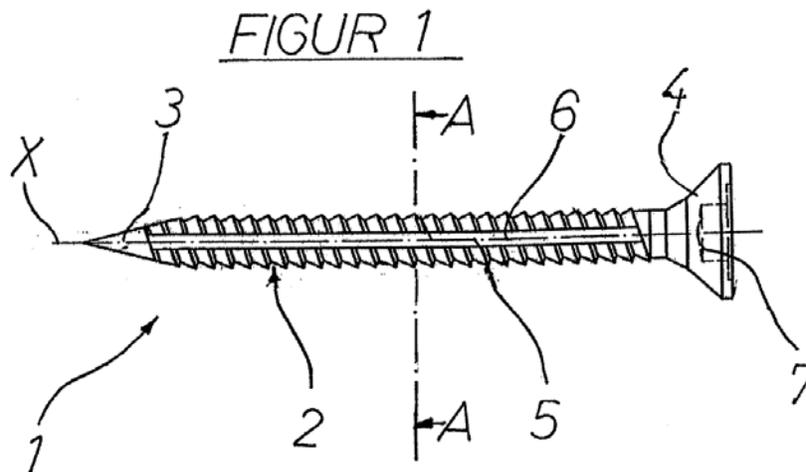
Claim 10, reproduced below, is illustrative of the claimed subject matter.

10. A method for connecting plane components in dry construction, comprising the steps of:

a) providing a screw nail comprising a shaft having a first end forming a point and a second end forming a head, a fine thread being formed on the shaft, and grooves being provided on the shaft and extending substantially parallel to a central axis of the shaft; and

b) securing a planar construction material and a metallic substructure underlying the construction material by driving the screw nail, substantially without rotation about the central axis, through the construction material and into the metallic substructure.

Appeal Br. 23 (Claims App.). We reproduce Appellant's Figure 1 below.



Appellant's Figure 1 depicts a screw nail 1 including shaft 2, point 3, head 4, and groove 6. Spec. 7.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Rogers	US 264,479	Sept. 19, 1882
Hodson	US 4,367,836	Jan. 11, 1983
Panasik	US 6,872,042 B2	Mar. 29, 2005

REJECTIONS

I. Claims 10–20, 22, and 23 are rejected under 35 U.S.C. § 103(a) as unpatentable over Rogers and Panasik. Non-Final Act. 4.

II. Claim 21 is rejected under 35 U.S.C. § 103(a) as unpatentable over Rogers, Panasik, and Hodson. Non-Final Act. 8.

OPINION

Rejection I–Rogers and Panasik

Claim 10

The Examiner finds that Rogers discloses many of the steps recited in claim 10, including a step of securing construction material by driving a screw nail substantially without rotation about its central axis. Non-Final Act. 4. However, the Examiner relies on Panasik to teach “a planar construction material . . . a metallic substructure . . . and . . . underlying the construction material, and securing the construction material by driving a screw nail . . . through the construction material and into the metallic substructure.” *Id.* at 5 (citing Panasik, col. 2, ll. 24–32 and 51–col. 3, l. 5, col. 6, ll. 7–32; Fig. 2). The Examiner reasons it would have been obvious to secure the above-noted materials from Panasik via the screw nail and method disclosed by Rogers as a mere substitution of one known prior art

element for another to achieve predictable results. *Id.* The Examiner also characterizes the proposed modification of Rogers as the utilization of existing hardware for a different application that has the benefit of “eliminating the need, cost, and time required to design, test, and manufacture new hardware.” *Id.* at 5–6.

Rotation

Appellant argues that Rogers does not disclose the step of driving a screw nail without rotation.⁴ Appeal Br. 8–10 (citing Rogers, 1:91–93, 2:10–13, 23–34, Figs. 3, 5); Reply Br. 2–4. Appellant argues that the presence of a slot in the head of the screw nail in Rogers supports a finding that Rogers discloses inserting the screw nail via rotation. Appeal Br. 9; Reply Br. 3. Appellant asserts, “Rogers not only fails to disclose ‘driving a screw nail, substantially without rotation about the central axis’, it explicitly discloses the opposite, namely driving the screw nail by rotation.” Appeal Br. 9.

In response, the Examiner refers to the presence of the “tongue and groove” arrangement in Figure 3 of Rogers and finds that this structure indicates that construction material is maintained along the axial length of Rogers’ screw nail. Ans. 8–9 (citing Rogers 1:19–34). The Examiner also finds “when the screw nail of Rogers is rotated the threaded portion of Rogers is able to bite into the material located within the grooves b and the screw nail can be removed.” *Id.* (citing Rogers 1:90–2:1).

⁴ Appellant also argues that Panasik “engineered its fastener to rotate while being driven into the work piece” and fails to disclose “driving a screw nail without rotation.” Appeal Br. 10–11. This argument is unavailing because the Examiner relies on Rogers, not Panasik, to disclose this step. *See* Non-Final Act. 4.

The Examiner has the better position. Rogers discloses that its screw nail is “driven home” and, after this action, “turned axially.” Rogers 1:19–25, 90–25. Rogers states, “my screw-nail, which can be driven with a hammer as easily as a common cast or wrought nail, can be made to hold itself in sound wood nearly as firmly *as if* it were a full-threaded screw and *sent home* by a screw-driver.” *Id.* 2:2–7 (emphasis added). “This will not only be the case if the nail is driven home and not turned by a screw-driver after being driven, but it will also be the case if the nail be partially turned by a driver.” *Id.* 2:23–27. Thus, Rogers describes placing the screw nail in its “home” position in two different ways, via driving and via a combination of driving and turning. In the context of the statements above, a person of ordinary skill in the art would understand Rogers to use the phrase “driven home” to mean driven all the way into its final position. As Rogers discloses that its screw nail is driven home, and, afterward, turned axially, a preponderance of the evidence supports the Examiner’s finding that Rogers discloses “securing constructional elements together by driving the screw nail, substantially without rotation about the central axis into the construction elements” (Non-Final Act. 4).

Rationale

Appellant next contends “there is no rationale to combine the teachings of Rogers and Panasik.” Appeal Br. 11; Reply Br. 4–5. Appellant contends that “[u]nlike Rogers, the Panasik fastener is designed to facilitate the removal of the fastener 10 and disassembly of the joined materials.” *Id.* at 12. Appellant asserts that “Panasik’s purpose, allowing removable attachment, is thus *the opposite* of Rogers’, which seeks a permanent connection.” *Id.* (emphasis added). Appellant also states, “Panasik does not disclose a screw nail as alleged by the Examiner. The word nail is not used

Appeal 2018-005193
Application 14/711,051

in Panasik, nor is the term screw nail” and “fastener 10 of Panasik contains no thread and is not a screw as that term is commonly understood in the art.” *Id.* at 12–13. Based on the assertion that Panasik does not disclose a screw nail, Appellant further asserts that the Examiner failed to consider the teachings of Panasik as a whole and instead is merely “[p]icking and choosing selected parts of a reference, while completely ignoring other parts.” *Id.* at 13; *see also* Reply Br. 7.

In response, the Examiner takes the position that Panasik, like Rogers, teaches removing its fastener by rotating it. Ans. 10–11 (citing Panasik 6:41–49, 6:66–7:7, 7:58–67; Rogers 1:7–12)). The Examiner further explains that, regardless of the particular method of insertion and removal of Panasik’s fastener, “Rogers merely fails to disclose that the screw nail is utilized to secure a planar construction material to a metallic substrate. Panasik . . . is looked to as a teaching of utilizing a fastener that is driven with a hammer device, without substantial rotation, in order to secure construction material to a metallic substrate.” *Id.* at 11. Thus, according to the Examiner, a person of ordinary skill in the art would have had a reasonable expectation of success in modifying the method disclosed by Rogers as proposed. *Id.* at 11–12.

As a companion to the arguments asserted above, Appellant argues “the screw nail of Rogers is so different from the fastener of Panasik that, contrary to the Examiner's allegation, a PHOSITA would not have expected the screw nail of Rogers to allow attachment and subsequent separation of the work piece and the metallic support member” Appeal Br. 14 (citing Panasik 1:49–51, 2:43–50, 4:10–15, 5:17–20, 7:13–15, 58–61). Appellant argues that “using the screw nail of Rogers, *as taught with rotation*, would

cause a loose connection with the metallic support member 4, rather than a strong connection.” *Id.*

We are not apprised of Examiner error on these points. First, the Examiner articulated two rationales for making the proposed modification, namely, (i) that the modification would have been a mere substitution of one known prior art element for another to achieve predictable results, and (ii) the utilization of existing hardware for a different application that has the benefit of “eliminating the need, cost, and time required to design, test, and manufacture new hardware.” Ans. 5–6. Both reasons are supported by rational underpinnings. In this regard, it is not the entire fastener and method of attachment disclosed by Panasik that the Examiner’s rejection relies upon. Rather, as the Examiner explains in the Answer and on pages 4–5 of the Non-Final Office Action, Panasik is cited for teaching a planar construction material, a metallic substrate underlying the construction material, and securing the construction material by driving a screw nail.

The Examiner’s findings as to the disclosure in Panasik are supported by a preponderance of the evidence. *See* Panasik 2:24–32, 2:51–3:5, 6:7–32; Fig. 2). The fact that Panasik does not use the term “screw nail” does not indicate that the Examiner’s findings of fact forming the basis for the Examiner’s stated rationale are in error. Panasik describes its hardware as “[a] novel fastener [that] comprises a head having a recess for receiving a rotary driver, a shank having knurls defined by generally helical grooves and intersecting generally annular grooves, wherein a plurality of the knurls include a lateral cutting edge, and a generally pointed tip.” Panasik, Abstract. We do not agree that the structure of Panasik’s fastener is so dissimilar to that of Rogers’s screw nail that a person of ordinary skill in the art would not have found it obvious to substitute the *construction materials*

attached by Panasik (not Panasik's fastener itself) as proposed by the Examiner. Nor do we agree that a person of ordinary skill in the art would not have had a reasonable expectation of success in fastening the planar materials disclosed by Panasik via Rogers's screw nail, which, as explained in the Examiner's statement of rationale (ii), is capable of joining construction elements. *See Non-Final Act. 5*; In this regard, we reproduce Figure 2 of Panasik below.

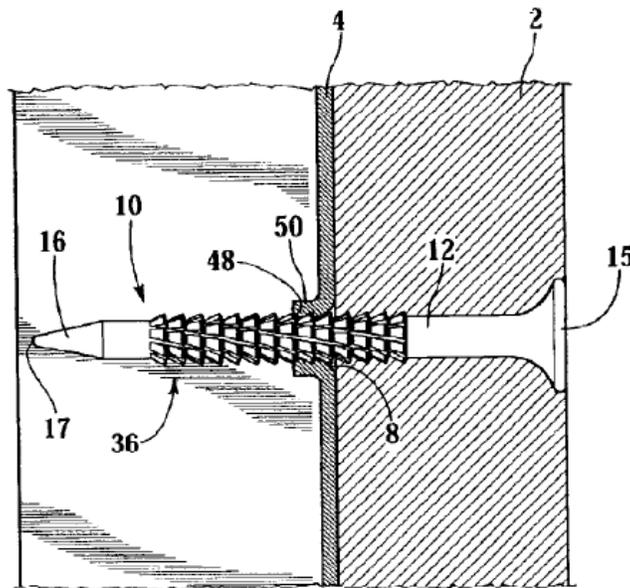


Fig.2

Panasik's Figure 2 is a partial side sectional view of fastener 10 installed in work piece 2 and a support member 4. Panasik 2:14–15. A comparison of Figure 2 of Panasik with Figure 3 of Rogers (reproduced below) evidences the similarity in structure of these two fasteners.



FIG. 3.

Figure 3 of Rogers is a perspective view of a screw nail made from a longitudinally grooved rod. Rogers 1:35–40. Both fasteners include a head that receives a rotary driver. Rogers, 1:10–13; Panasik, Abstract. The fasteners in both Rogers and Panasik are intended for insertion into wood. Rogers 1:25–34; Panasik 2:51–60. Appellant argues that Panasik teaches that when fastener 10 of Panasik is rotated, no linear motion via screwing is created, and instead, two results are possible: either (i) the fastener 10 spins in place, or (ii) head 15 breaks off from shank 12. Appeal Br. 12–15. As explained by Appellant, these results relate to the method of removing Panasik’s fastener. *See id.* However, the fact that the fasteners of Rogers and Panasik may teach different methods of *removal* or separation of materials after insertion of the fastener does not support a conclusion that a person of ordinary skill in the art would not have had a reasonable expectation that Rogers’ fastener would be able to *secure* the materials disclosed by Panasik. Given the similarities in the securing functions of the fasteners disclosed by Rogers and Panasik, we agree with the Examiner that a person of ordinary skill in the art would have had a reasonable expectation

Appeal 2018-005193
Application 14/711,051

of success in using the screw nail disclosed by Rogers with the materials disclosed by Panasik.

Regarding Appellant's assertion that the Examiner's proposed modification would cause a loose connection with the metallic support member 4 due to the rotation occurring during insertion of Rogers's screw nail (Appeal Br. 14), as discussed *supra*, Rogers discloses that its screw nail is driven home via a hammer, and no rotation is necessary to insert it. Thus, Appellant's argument on this point relies on an inaccurate characterization of Rogers' disclosure.

Appellant also contends that Rogers' fastener would not allow removal without damaging the work piece, unlike Panasik's fastener. This argument does not address any limitation recited in claim 10, which does not require removal of the screw nail. Further, we note that Rogers explicitly discloses removal from the material into which it has been driven. "[T]he nail can then, if desired, be unscrewed from its hold in the wood, like an ordinary screw." Rogers 2:10–12. Appellant provides no persuasive evidence or technical argument as to why Rogers's disclosed method of removal would not be expected to be successful with the materials disclosed by Panasik. Even assuming for the sake of argument that Rogers's fastener would have disadvantages when used to attach materials as proposed by the Examiner, we do not agree that these disadvantages negate the Examiner's proposed reasoning for using Rogers's fastener on the construction materials of Panasik. Rather, as the Examiner states, Rogers's fastener is designed, in general, to hold construction materials together, and driving Rogers' fastener through the wood, and then the metal, disclosed by Panasik would have been merely a specific implementation Rogers' fastener.

Appellant argues, “[w]ith regard to the [Examiner’s] second rationale, ‘the need, cost, and time required to design, test, and manufacture a new hardware’ are not of concern here, because the fastener of Panasik has already been designed and tested.” Appeal Br. 15. Although we appreciate that Panasik was filed in May of 2003, and would not have to be designed and tested, we agree with the Examiner that the implementation of Rogers’s fastener with the materials disclosed by Panasik would have been the “[utilization of] existing hardware for different applications where the existing hardware would be capable of performing the work required by the application.” Final Act. 5. As discussed above, the proposed modification to Rogers would have been merely an obvious specific implementation of Rogers’s general teaching.

Claims 13–15, 17, and 19

Appellant does not make arguments for the patentability of claims 13–15, 17, and 19 aside from those discussed above regarding claim 10. *See* Appeal Br. 20–21. Accordingly, for the same reasons discussed regarding the rejection of claim 10, we sustain the rejection of claims 13–15, 17, and 19.

Claim 11

Claim 11 depends from claim 10 and recites, “step b) is accomplished by means of an automatic nail gun device.” Appeal Br. 23 (Claims App.).

In the Non-Final Office Action, the Examiner’s entire discussion of claim 11 is “[Panasik] further teaches that the securing is accomplished by means of an automatic nail gun device (Col. 6, Lines 15-25).” Non-Final Act. 6.

Appellant asserts that the Examiner failed to provide any reasoning for using a nail gun in the “securing” step of Rogers. Appeal Br. 17.

Appellant also argues that “the nail gun mentioned by Panasik is for use with its knurled fastener, not the screw nail of Rogers. The nail gun is designed to work with the helical groove 22 to allow the fastener 10 to rotate while being driven,” and that Rogers’ screw nail is not designed for use with a nail gun. *Id.*; *see also* Reply Br. 7–8.

In response, the Examiner states, “Rogers discloses using a hammer in order to install the screw nail and [Panasik] at least suggests utilizing a powered fastener tool to install the fastener.” Ans. 12. The Examiner also states, “automatic nail guns are old and well known in the art, and *modifying the screw nail of Rogers* such that it was capable of use with an automatic nail gun would have been well within the ability of one [having] ordinary skill in the art.” *Id.* (emphasis added). Thus, in the Answer, the Examiner proposes a modification of the screw nail of Rogers.

Appellant replies that the Examiner “has not offered any rationale for a PHOSITA to adapt the screw nail of Rogers for use with a nail gun (e.g., there is no disclosure of how a nail gun would accomplish the necessary rotation of Rogers' screw nail) or how to modify the screw nail of Rogers for use with a nail gun.” Reply Br. 7–8.

We agree with Appellant that the Examiner has not set forth any rationale for *modifying* the screw nail of Rogers.⁵ *See* Ans. 12. Thus, we do not sustain the rejection of claim 11 as unpatentable over Rogers and Panasik.

Nonetheless, we agree that a person of ordinary skill in the art would have found it obvious to carry out step (b) of claim 10, namely, the

⁵ Although we agree Appellant has shown error in this aspect of the rejection, as discussed above, we do not agree that Roger’s fastener requires *rotation* in order to be inserted.

Appeal 2018-005193
Application 14/711,051

“securing” step, by means of an automatic nail gun. By definition, a nail gun is designed to insert nails. Rogers teaches that its screw nail may be “driven home by a hammer,” and Panasik discloses use of a tool which drives a fastener “with a piston.” Rogers 1:92–93, Panasik 6:15–20. In other words, Rogers discloses a need to hammer its screw nail into the materials being fastened. It would have been obvious to use a piston-driven nail gun to drive a screw nail that is already configured to be driven home via a hammer because this is merely the substitution of a nail gun for the purpose for which it is designed. We see no need for the screw nail disclosed by Rogers to be modified to work with a nail gun, as the Examiner proposes in the Answer. Indeed, there is a rebuttable presumption that the disclosure in a prior art patent is enabled (i.e., the disclosed screw nail may be inserted via a nail gun, similar to how it is inserted via a hammer). *See Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003); *see also In re Antor Media Corp.*, 689 F.3d 1282, 1287–88 (Fed. Cir. 2012) (holding that prior art publications and patents are presumed to be enabled). Appellant does not identify any reason why the screw nail of Rogers would be incompatible with a nail gun. *See* Appeal Br. 17–18; Reply Br. 7–8. As discussed above, the structure of the fasteners disclosed by Rogers and Panasik are similar. Accordingly, we reverse the Examiner’s rejection of claim 11 and enter a NEW GROUND OF REJECTION of claim 11 as unpatentable over Rogers and Panasik.

Claims 12, 22, and 23

Claim 12 depends from claim 10 and recites, “wherein the grooves have a depth which corresponds to a depth of the fine thread.” Appeal Br.

Appeal 2018-005193
Application 14/711,051

23 (Claims App.). Claim 22 recites the same limitations, and claim 23 depends from claim 22.⁶ *Id.* at 24.

The Examiner determines that “modifying the depth of the grooves of Rogers such that they corresponded to a depth of the fine thread of Rogers would merely require a change in shape of the grooves of Rogers without any unpredictable result” (Non-Final Act. 6 (citing *Eskimo Pie Corp. v. Levous et al.*, 35 F.2d 120 (3d Cir. 1929))), and Appellant “has not described any advantage over the screw nail of Rogers that would be provided by changing the depth of the grooves of Rogers to that of the claimed invention” (Ans. 12).

Appellant argues the Examiner has not provided an adequate rationale for modifying the groove depth of Rogers’ screw nail. Appeal Br. 19; Reply Br. 8.

Referring to *Eskimo Pie Corp.*, Appellant states “the overall shape of a screw nail is important to its function. Changing the overall shape of an ice cream item is not at issue here. Indeed, Rogers explains how the grooves bite into the surrounding wood fiber after the screw nail has been driven axially.” Appeal Br. 18. Appellant further states, “it is not simple to change the depth of the grooves based on the method disclosed by Rogers,” and “[t]he Examiner has not proposed how that could be accomplished.” *Id.* at 19.

In the Answer, the Examiner states, “it would be well within the ability of one of ordinary skill in the art to make this modification and as

⁶ The Examiner objected to claims 12 and 22 on the basis that they are identical. Non-Final Act. 2–3.

[no] advantage or unexpected result would be arrived at by this modification the modification would have been an obvious modification.” Ans. 13.

In the Reply Brief, Appellant reiterates that the Examiner has not set forth an adequate rationale for the proposed modification and asserts the Examiner failed to address Appellant’s arguments regarding *Eskimo Pie*.

The Examiner has the better position on this point because the rejection of claims 12, 22, and 23 relies on the doctrine of design choice, not a finding that the proposed modification would result in an improvement. *In re Dailey*, 357 F.2d 669 (CCPA 1966) (The court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant.). Appellant’s argument that the Examiner “has offered no motivation for a PHOSITA to expend the extra effort to modify the groove of Rogers” (Appeal Br. 19) does not address the Examiner’s finding that Appellant has not indicated that the recited depth of the groove provides any difference in performance (Ans. 12–13).

Appellant’s argument that “cutting the thread so that its depth corresponds to the depth of the grooves requires a very deep thread and precise cutting[, and this] is the reason why the thread of Rogers is shallower than the grooves” (Appeal Br. 19) is unavailing because Appellant provides no objective evidence or technical argument supporting this assertion (which characterizes an industrial process as being difficult). In this regard, Appellant merely asserts that the fact that “the grooves are not shaped but are already present on the rod before the screw nail is formed” is an indication that making the depth of the groove equal the depth of the thread is difficult. *Id.* It is not self-evident why this process would be difficult or

Appeal 2018-005193
Application 14/711,051

would have a difficulty different from making the groove some other depth. Appellant provides no evidence supporting a conclusion that there would be any such difference. Thus, Appellant's contention attempts to substitute attorney argument in place of objective evidence. Accordingly, Appellant does not apprise us of Examiner error, and we sustain the rejection of claims 12, 22, and 23 as unpatentable over Rogers and Panasik.

Claim 16

Claim 16 recites, "the fine thread has self-cutting thread flanks." Appeal Br. 24 (Claims App.). Claim 20 recites identical language.⁷ *Id.*

The Examiner finds that "Rogers further discloses that the fine thread has self-cutting thread flanks." Non-Final Act. 8 (citing Rogers 1:90–2:12).

Appellant argues that serrations such as those described by Rogers are distinguished from self-cutting threads. Appeal Br. 21 (citing Spec. 6).

In response, the Examiner states, "Rogers discloses that the threads of the screw nail are capable of cutting into the material provided within the [groove] b, and are therefore considered self-cutting." Ans. 13 (citing Rogers 1:19–34).

In reply, Appellant reiterates that the Specification distinguishes serrations from self-cutting threads, and, therefore, the serrations of Rogers do not meet the requirements for self-cutting threads recited in claims 16 and 20. Reply Br. 9 (citing Spec. 6).

The Examiner has the better position on this point because the Examiner does not rely on the serrations of Rogers to meet the requirements of claims 16 and 20. *See* Non-Final Act. 8. Thus, Appellant's argument

⁷ The Examiner objected to claims 16 and 20 on the basis that they are identical. Non-Final Act. 2–3.

Appeal 2018-005193
Application 14/711,051

does not address the rejection of claims 16 and 20. In any event, the portion of Rogers cited in the Non-Final Office Action, page 1, line 90 to page 2, line 12 describes screw threads that “enter the untorn fibers of the wood.” Threads that enter untorn fibers of wood are consistent with threads that are “self-cutting.” Accordingly, a preponderance of the evidence supports the Examiner’s findings with regards to claims 16 and 20, and this rejection is sustained.

Claim 18

Claim 18 depends from claim 10 and recites, “the screw nail is heat treated.” Appeal Br. 24 (Claims App.).

The Examiner finds “[Panasik] further teaches that the screw nail is heat treated.” Non-Final Act. 8 (citing Panasik 7:41–49). The Examiner provides no explanation as to why this feature would have been obvious to include in the screw nail of Rogers. *See id.*

Appellant points out the Examiner’s lack of explanation as to why a person of ordinary skill in the art would have found it obvious to include heat treatment in the screw nail of Rogers. Reply Br. 10. “Appellant does not dispute that heat treatment of fasteners (as disclosed by Panasik) was known at the time of the invention. Appellant avers that the Examiner has not proposed a rationale to heat treat the screw nail of Rogers.” *Id.*

In the Answer, the Examiner states (in a discussion of claim 21), “[h]eat treatment of metallic workpieces to provide a desired design characteristic is old and well known in the art.” Ans. 7. With specific reference to claim 18, the Examiner states, “as addressed above it is known in the art to heat treat fasteners in order to provide desired characteristics to the fastener.” *Id.* at 13.

In reply, Appellant reiterates that the Examiner has not provided any rationale for modifying the screw nail of Rogers to include heat treatment. Reply Br. 10–11.

We agree with Appellant that the Examiner has not provided an adequate rationale for heat treating the screw nail of Rogers. Thus, we do not sustain the rejection of claim 18 as unpatentable over Rogers and Panasik.

Nonetheless, we enter a NEW GROUND OF REJECTION of claim 18 as unpatentable over Rogers, Panasik, and Hodson. Hodson discloses that a nail driven by a driver is austempered, a kind of heat treatment that improves hardness and toughness of steel.⁸ It would have been obvious to a person of ordinary skill in the art to heat treat a screw nail designed to be driven home via hammering, as disclosed by Rogers, in order to make it hard and tough, improving its durability and reducing the likelihood of unwanted deformation during hammering.

Rejection II—Rogers, Panasik, and Hodson

Claim 21

Claim 21 depends from claim 10 and recites, “wherein the screw nail is austempered.” Appeal Br. 24 (Claims App.).

The Examiner finds that Hodson discloses austempering nails (Hodson 4:36–58; Fig. 3) and determines that modifying Rogers’ screw nail (has heat-treated based on the teachings of Panasik) would have been obvious as a combination of prior art methods in order to achieve predictable

⁸ One online dictionary defines “austemper” as “to quench (steel) from above the transformation temperature in a bath between 350° and 600° F and hold it there until transformation of austenite stops, for rendering it hard and tough.” <https://www.merriam-webster.com/dictionary/austemper>.

Appeal 2018-005193
Application 14/711,051

results inasmuch as it would have provided desired design characteristics. Non-Final Act. 9. Further, the Examiner reasons this modification would have been “a simple substitution of known heat treatment method, austempering, for the generic heat treatment method of Panasik.” *Id.*

Appellant argues that the Examiner has not articulated any reasoning for the proposed modification. Reply Br. 11. “Appellant does not dispute that austempering of nails (as disclosed in Hodson) was known at the time of the invention. Appellant avers that the Examiner has not proposed a rationale to austemper the screw nail of Rogers.”⁹ *Id.*

The Examiner has the better position. We agree that austempering would provide a predictable result of improving the properties of the screw nail disclosed by Rogers. As discussed above, the austempering process toughens and hardens the material thus treated. Accordingly, we sustain the rejection of claim 21 as unpatentable Rogers, Panasik, and Hodson.

CONCLUSION

The Examiner’s rejections are affirmed-in-part.

DECISION SUMMARY

⁹ In the Answer, the Examiner reiterates the discussion set forth in the Non-Final Office Action (Ans. 7–8, 13–14), and, in the Reply Brief, Appellant reiterates the arguments set forth in the Appeal Brief (Reply Br. 22).

In summary:

Claims Rejected	35 U.S.C. §	Basis	Affirmed	Reversed	New Ground
10–20, 22, 23	103(a)	Rogers, Panasik	10, 12–17, 19, 20, 22, 23	11, 18	11
21	103(a)	Rogers, Panasik, Hodson	21		18
Overall Outcome			10, 12–17, 19, 20–23	11, 18	11, 18

TIME PERIOD FOR RESPONSE

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that the Appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. . . .

Further guidance on responding to a new ground of rejection can be found in the Manual of Patent Examining Procedure § 1214.01.

Appeal 2018-005193
Application 14/711,051

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-IN-PART; 37 C.F.R. § 41.50(b)