



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/224,348	07/29/2016	Steven M. Galamba	SY-50402-5/710240-8163	2905
59582	7590	03/03/2020	EXAMINER	
DICKINSON WRIGHT PLLC 2600 WEST BIG BEAVER ROAD SUITE 300 TROY, MI 48084-3312			VARGHESE, ROSHN K	
			ART UNIT	PAPER NUMBER
			2847	
			NOTIFICATION DATE	DELIVERY MODE
			03/03/2020	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DWPatents@dickinson-wright.com  
tgood@dickinsonwright.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

*Ex parte* STEVEN M. GALAMBA

---

Appeal 2019-001354  
Application 15/224,348  
Technology Center 2800

---

Before DONNA M. PRAISS, MICHELLE N. ANKENBRAND, and  
JEFFREY R. SNAY, *Administrative Patent Judges*.

PRAISS, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

Appellant<sup>2</sup> appeals under 35 U.S.C. § 134(a) from the Examiner’s decision rejecting claims 1–3, 6–10, and 13–21 under 35 U.S.C. § 103.<sup>3</sup> We have jurisdiction over the appeal under 35 U.S.C. § 6(b). We REVERSE.

---

<sup>1</sup> Our Decision refers to the Specification (“Spec.”) filed July 29, 2016, Appellant’s Appeal Brief (“Appeal Br.”) filed May 30, 2018, the Examiner’s Answer (“Ans.”) dated Sept. 13, 2018, and Appellant’s Reply Brief (“Reply Br.”) filed Nov. 13, 2018.

<sup>2</sup> We use the word “Appellant” to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Federal-Mogul Powertrain LLC as the real party in interest. Appeal Br. 1.

<sup>3</sup> The Examiner indicates claims 4, 5, 11, and 12 include allowable subject matter. Final Office Action (“Final Act.”) dated Jan. 4, 2018, 8. The Examiner’s provisional nonstatutory obviousness-type double patenting rejection is withdrawn. Ans. 16.

STATEMENT OF THE CASE

The invention “relates generally to tubular sleeve assemblies that provide thermal protection to an electronic object contained therein.”

Spec. ¶ 2. The Specification discloses protective sleeves are used to cover sensors mounted within an automotive vehicle’s engine compartment.

*Id.* ¶ 3. According to the Specification, however, it is typically difficult to assemble the sleeve in a manner that allows the sleeve to be reliably secured, maintained in a desired position, and readily removable to service the sensor.

*Id.* ¶ 4. In view of this, the Specification discloses a thermal sleeve for protecting an electronic member connected to a wiring harness. *Id.* ¶ 5. The tubular member includes, among other things, an inner layer of insulative material, an outer layer of reflective material, and a plurality of slits that extend lengthwise through one end of the tubular member to form a plurality of fingers that extend radially inwardly to form an opening for receipt of the wiring harness. *Id.*

Claim 1, reproduced below from the Claims Appendix to the Appeal Brief, is illustrative (formatting added).

1. A thermal sleeve for protecting an electronic member operably connected to an elongate wiring harness, comprising:

a tubular member including an inner layer of insulative material and an outer layer of reflective material,

said tubular member extending along a central longitudinal axis between opposite ends,

a plurality of slits extending lengthwise through one of said ends of said inner layer of insulative material and said outer layer of reflective material to form a plurality of fingers of said inner layer of insulative material and said outer layer of reflective material,

Appeal 2019-001354  
Application 15/224,348

said fingers extending radially inwardly toward said central longitudinal axis and forming an opening for receipt of the wiring harness therethrough.

Independent claims 8 and 16 include limitations similar to claim 1. Claim 8 is directed to a thermal sleeve in combination with a wiring harness. Claim 16 is directed to a method of constructing a sleeve for protecting an electronic member connected to a wiring harness. The remaining claims on appeal depend directly or indirectly from claims 1, 8, and 16.

### ANALYSIS

We review the appealed rejections for error based upon the issues Appellant identifies. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (*cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”)). After considering the positions of both the Examiner and Appellant, we are persuaded the Examiner reversibly erred for the reasons set forth in Appellant’s briefs and discussed below.

#### *Rejection 1: Obviousness of Claims 1–3, 6–10, and 13–18*

The Examiner rejects claims 1–3, 6–10, and 13–18 under 35 U.S.C. § 103 as being unpatentable over Fryberger, Jr.<sup>4</sup> in view of Moisson.<sup>5</sup> Final Act. 9–20; Ans. 2–13.

---

<sup>4</sup> US 2006/0054763 A1, published Mar. 16, 2006 (“Fryberger, Jr.”).

<sup>5</sup> US 4,380,686, issued Apr. 19, 1983 (“Moisson”).

Fryberger, Jr.'s Figure 1 is reproduced below.

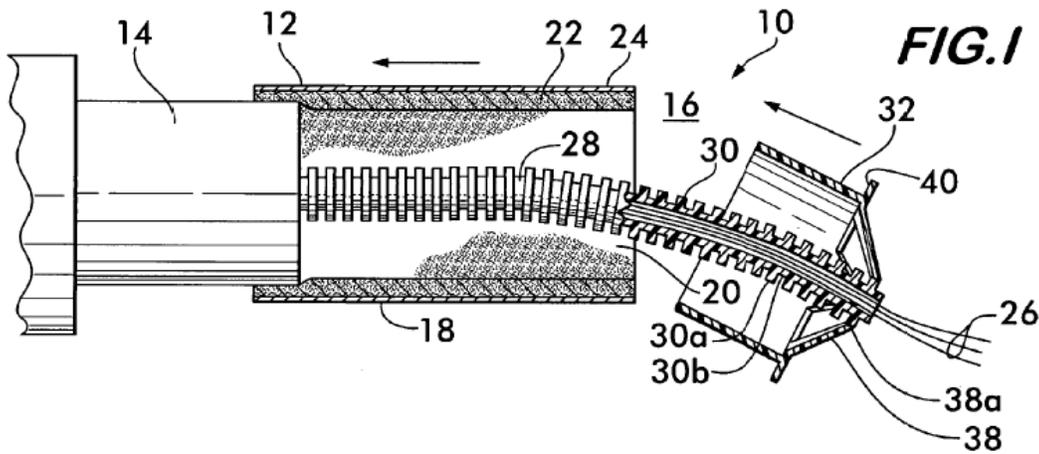


Figure 1 is an exploded sectional view of Fryberger, Jr.'s assembly. See Fryberger, Jr. ¶ 7.

Fryberger, Jr.'s Figure 1 shows positioning device assembly 10 used to affix protective sensor sleeve 12 over sensor 14. *Id.* ¶ 10. Sensor sleeve 12 includes elongated tube 18 having damping layer 22 and outwardly facing reflective layer 24. *Id.* Assembly 10 further includes harness sleeve 28 and positioning device 32 that is moved to be received within bore 20 of elongated tube 18. *Id.* ¶ 12. Fryberger, Jr. discloses an embodiment in which positioning device 32 includes fingers 38. *Id.* ¶ 15. Fryberger, Jr. teaches that positioning device 32 engages harness sleeve 28. *Id.* ¶ 12. Figure 1 depicts fingers 38 engaging harness sleeve 28. *Id.* ¶ 13.

#### *Claim 1*

Regarding claim 1, the Examiner finds Fryberger, Jr. discloses a thermal sleeve including an inner layer of insulative material and an outer layer of reflective material, citing Fryberger, Jr.'s damping layer 22 and reflective layer 24. Ans. 2. The Examiner also finds Fryberger, Jr. discloses a plurality of slits that form a plurality of fingers that extend radially inward

to form an opening, citing the fingers 38 of Fryberger, Jr.'s positioning device 32. *Id.* at 2–3.

The Examiner finds Fryberger, Jr. does not disclose a plurality of slits extending lengthwise through ends of the inner layer and outer layer of the tubular member to form the plurality of slits claim 1 requires. *Id.* at 3. The Examiner finds Moisson discloses a sleeve including a tubular member that has an inner layer of insulative material, an outer layer of reflective material, and a plurality of slits extending lengthwise through an end of the inner layer and outer layer to form a plurality of fingers that extend radially inward to form an opening. *Id.* Moisson's Figure 1 is reproduced below.

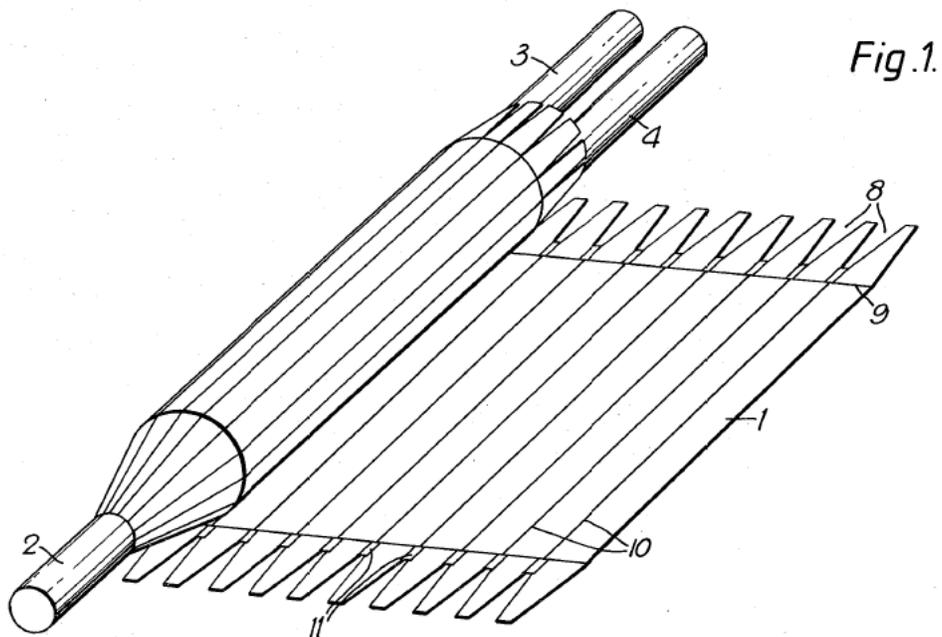


Figure 1 of Moisson depicts a liner positioned around a cable splice. Moisson 2:33–34.

Moisson's Figure 1 depicts liner 1 having folding lines 10 for increased flexibility to facilitate wrapping liner 1 around a splice in cables 2, 3, 4. *Id.* at 2:37–39. Slots 8 at the edges of liner 1 permit tapering of the liner around the spliced cable. *Id.* at 2:43–45.

The Examiner concludes it would have been obvious to modify Fryberger, Jr.'s sleeve in view of Moisson to “provide better support while maintaining flexibility and facilitation of bending,” “provide a means for moisture barrier where the fingers extend radially to the wire harness,” and “provide a harness protection resistant to delamination.” Ans. 3–4.

Appellant contends Fryberger, Jr. discloses a positioning device that already includes fingers and the rejection does not indicate what becomes of the positioning device upon modification of Fryberger, Jr.'s sleeve to add or incorporate Moisson's liner or slit configuration. Appeal Br. 14. Appellant asserts there would have been no reason to eliminate the positioning device and the Examiner has not sufficiently articulated why one of ordinary skill in the art would have modified Fryberger, Jr. in view of Moisson. *Id.* at 14–16.

The Examiner responds Fryberger, Jr. “can be modified by Moisson via multiple means,” such as by replacing Fryberger, Jr.'s positioning device 32 and modifying Fryberger, Jr.'s sleeve 12 to have slits like those disclosed by Moisson, replacing the material of Fryberger, Jr.'s positioning device 32 with Moisson's liner material, or replacing Fryberger, Jr.'s sleeve 12 and positioning device 32 with Moisson's liner. Ans. 18. The Examiner also provides reasoning for modifying Fryberger, Jr.'s sleeve based on Moisson's disclosures concerning flexibility, moisture permeability, and delamination. *Id.* at 19–23.

Appellant's arguments are persuasive of harmful error. Each of the ways the Examiner explains to modify Fryberger, Jr. in view of Moisson involves eliminating Fryberger, Jr.'s positioning device 32 or modifying the positioning device to use Moisson's liner material. However, the Examiner's explanations do not sufficiently explain why, absent hindsight, one of ordinary skill in the art would have made any of these modifications.

Moisson's disclosure that its fold lines 9, 10 allow the material of Moisson's liner 1 to be bent over a cable and its slots 8 permit tapering of the liner 1 around a spliced cable support the Examiner's first articulated reason to combine (to "provide better support while maintaining flexibility and facilitation of bending"). Final Act. 10; Ans. 19–20. However, this rationale does not explain why one of ordinary skill in the art would have eliminated Fryberger, Jr.'s positioning device or modified the positioning device to use Moisson's liner material when Fryberger, Jr.'s positioning device already includes fingers 38 that engage with Fryberger, Jr.'s harness sleeve 28, as discussed above.

The Examiner's second and third reasons to combine are also insufficient—to provide a moisture barrier and a barrier resistant to delamination. Final Act. 10; Ans. 20–22. Moisson's disclosure teaches that moisture and delamination result from known liners formed of aluminum foil sandwiched between two layers of stiff cardboard, which permit the ingress of moisture along the cardboard. Moisson 1:11–17. The Examiner fails to explain how Moisson's moisture or delamination issues would have been a concern for Fryberger, Jr.'s device.

In view of the above and for the reasons provided in the Appeal Brief and the Reply Brief, we reverse the Examiner's rejection of claim 1 over Fryberger, Jr. and Moisson. We also reverse the Examiner's rejection of claims 2, 3, 6, and 7, which depend from claim 1, for the same reasons.

*Independent Claims 8 and 16*

Similar to claim 1, independent claims 8 and 16 recite a plurality of slits extending lengthwise through an end of an inner layer of insulative material and an outer layer of reflective material of a tubular member to form a plurality of fingers. Appeal Br. Ex. A, 2–4 (Claims Appendix). The

Appeal 2019-001354  
Application 15/224,348

Examiner's rejection of claims 8 and 16 is based on the same reasoning for combining the teachings of Fryberger, Jr. and Moisson discussed above in connection with claim 1. Final Act. 16, 19; Ans. 18–22. Accordingly, we do not sustain the Examiner's rejection of independent claims 8 and 16. We also reverse the Examiner's rejection of claims 9, 10, 13–15, which depend from claim 8, and claims 17 and 18, which depend from claim 16, for the same reasons.

*Rejection 2: Obviousness of Claims 19–21*

The Examiner rejects claims 19–21 under 35 U.S.C. § 103 as being unpatentable over Fryberger, Jr. in view of Moisson and further in view of Chesnais.<sup>6</sup> Ans. 14–15.

The Examiner's reliance on additional prior art in the rejection of claims 19–21 does not cure the deficiencies discussed above with regard to claim 1. Therefore, we do not sustain the Examiner's rejections of claims 19–21 under § 103.

CONCLUSION

For these reasons and those the Appellant provides, we reverse the Examiner's rejections of claims 1–3, 6–10, and 13–21 under 35 U.S.C. § 103.

---

<sup>6</sup> US 2011/0005807 A1, published Jan. 13, 2011 (“Chesnais”).

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1-3, 6-10, 13-18	103	Fryberger, Jr., Moisson		1-3, 6-10, 13-18
19-21	103	Fryberger, Jr., Moisson, Chesnais		19-21
<b>Overall Outcome</b>				1-3, 6-10, 13-21

REVERSED