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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MATTHIAS LEPIORZ, ROBERT STANGER, MOSES ENDER,
BERND ZIEGLER, KLAUS HAUSER, NORA MARTINY, and
KATHRIN SAX

Appeal 2025-000110
Application 17/058,901
Technology Center 1700

Before JEFFREY B. ROBERTSON, BRIAN D. RANGE, and
SHELDON M. McGEE, *Administrative Patent Judges*.

RANGE, *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 31–33. *See* Final Act. 1. 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 Hilti Aktiengesellschaft. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a safety device for battery packs having pouch cells. Claim 31, reproduced below with emphasis added to a recitation key to this appeal, illustrates the claimed subject matter:

31. A rechargeable battery pack comprising:
 at least one pouch cell defining a top surface and a bottom surface; and
 an electrical circuit with at least one interrupter designed to at least temporarily interrupt a current draw from the pouch cell or from the rechargeable battery pack, the interrupter tripped by an expansion of the pouch cell;
 the interrupter being designed as a mechanical switch or button;
 the electrical circuit fully surrounding a cross section of the at least one pouch cell so as to encircle the top surface and the bottom surface.

Appeal Br. 6 (Claims App.)

REFERENCE

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

Name	Reference	Date
Roh	US 2014/0248523 A1	Sept. 4, 2014

REJECTION

The Examiner maintains the rejection of claims 31–33 under 35 U.S.C. § 102 as being anticipated by Roh. Final Act. 3.

OPINION

The Examiner determines that Roh anticipates claim 31. Final Act. 3. With respect to the final recitation of claim 31, the Examiner finds that Figure 10 of Roh teaches “the electrical circuit fully surrounding a cross section of the at least one pouch cell so as to encircle the top surface and the bottom surface.” *Id.* Appellant argues that Roh does not teach an electrical

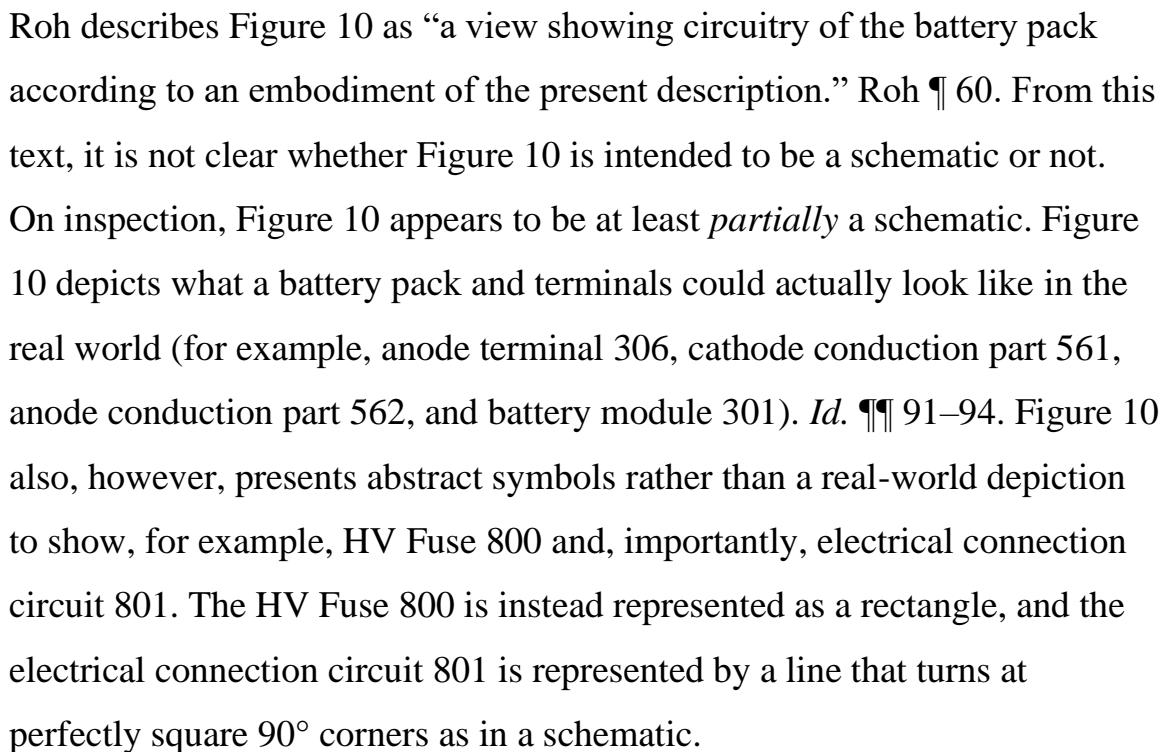
circuit that fully surrounds a cross section of the at least one pouch cell so as to encircle the top surface and bottom surface. Appeal Br. 4. Appellant's argument persuades us of Examiner error for the reasons we explain below.

As a threshold matter, we agree with Appellant that Appellant's Specification explains operation of its device differently than the explanation Roh provides for the Roh device. Reply Br. 2. Appellant's Specification explains that, when battery cells expand, the fusible link will narrow. Spec. ¶ 34. The narrowing will create a higher current that causes the fusible link to melt. *Id.* As the pouch cells expand further, the fusible link breaks mechanically. *Id.* ¶ 35; *see also id.* at Figs. 3A, 3B, 3B'.

Roh's explanation of its device is less clear. Roh explains that an "expansion force is transmitted to the circuit breaker 500 located at the side of the outermost battery module." Roh ¶ 93. Roh explains that "[h]igh electric current flows in the electrical connection circuit 801 of the battery pack 700" results in breaking cut-off portion 800. *Id.* ¶ 94. While evaluation of the Examiner's rejection does not squarely hinge on the distinction between the Specification's and Roh's description of their devices' function, the distinction does, somewhat, weigh against interpreting any ambiguity in favor of Roh having the same structure as claim 31.

With this context in mind, we consider Appellant's argument that Roh Figure 10 does not adequately establish an "electrical circuit fully surrounding a cross section of the at least one pouch cell so as to encircle the top surface and the bottom surface" as claim 31 recites. Appeal Br. 4. In particular, Appellant argues that Figure 10 is a schematic. *Id.*

We agree with Appellant that Roh Figure 10 is, at least in part, a schematic. We reproduce Roh Figure 10 below.



Because Figure 10 appears to be a schematic in its depiction of the electrical connection circuit 801, we do not understand Roh as necessarily teaching that the circuit must be located such that it would “surround[] a cross section of the at least one pouch cell so as to encircle the top surface and the bottom surface” as claim 31 recites. Rather, to the extent the depiction of electrical connection circuit 801 is a schematic, Roh only teaches what points should be electrically connected rather than how the wiring should be physically arranged in the real-world. Also, because Roh describes the functional operation of its device differently than how Appellant’s Specification describes the operation of its device, consideration of the devices’ operation does not resolve any ambiguity.

Because Roh’s teachings are unclear as explained above, we do not sustain the Examiner’s rejection of claim 31. We also do not sustain the rejection of claims 32 and 33 because those claims depend from claim 31, and the Examiner’s treatment of those claims does not cure the error with respect to claim 31.

CONCLUSION

The Examiner’s rejection is REVERSED.

Appeal 2025-000110
Application 17/058,901

DECISION SUMMARY

The following table summarizes our decision:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
31–33	102	Roh		31–33

REVERSED