



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.
13/504,555	07/10/2012	Kasper Höglund	6485-0102WOUS	8601
140282	7590	11/19/2018	EXAMINER	
Murtha Cullina LLP One Century Tower 265 Church Street New Haven, CT 06510			WEILAND, HANS R.	
			ART UNIT	PAPER NUMBER
			3763	
			NOTIFICATION DATE	DELIVERY MODE
			11/19/2018	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):

ipdocketing@murthalaw.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KASPER HÖGLUND and MAGNUS LINGVALL

Appeal 2017-001794
Application 13/504,555¹
Technology Center 3700

Before STEFAN STAICOVICI, EDWARD A. BROWN, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

BROWN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants seek review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 14–27.² We heard oral argument on October 31, 2018. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Alfa Laval Corporate AB is identified as the real party in interest. Appeal Br. 2.

² Claims 1–13 are cancelled. Appeal Br. 4.

CLAIMED SUBJECT MATTER

Appellants' disclosure "relates to a gasket locating arrangement, a use of the gasket locating arrangements in a flow module, and a flow module, preferably a plate reactor." Spec. ¶ 1.

Claims 14, 23, and 24 are independent. Claim 14 is illustrative, and reads:

14. A gasket locating arrangement for a flow module, preferably plate reactor, comprising:

- a gasket,
- locating means,
- a channel in a channel plate,
- a barrier plate,

wherein the gasket consists of a sheet of soft gasket material, and said sheet has a cut through pattern corresponding to the channel in the channel plate,

the locating means are in the gasket, in the channel plate, in the barrier plate or combinations thereof, which locating means are selected from the group consisting of headed pins, fitting pins, protruded pins, integrated pins, dowel pins, grooves, holes, under cut recesses, thickened parts in the gasket material, gasket deformation zones, wherein the locating means in the gasket, in the channel plate, or in the barrier plate are fitted into or to corresponding locating means in the gasket, in the channel plate, in the barrier plate or in combinations thereof leaving a flat surface together with the gasket between the channel plate and the barrier plate when the gasket locating arrangement is assembled for sealing the channel of the channel plate, and that the cut through pattern in the gasket makes it possible for the flow of media or the flow of fluids in the channel of the channel plate to touch the barrier plate and to have no contacts with the gasket's planar faces and little or minimized contact with any of the gaskets edges.

Appeal Br. 28 (Claims App.).

REJECTIONS

1. Claims 14, 15, and 17–27 are rejected under 35 U.S.C. § 103 as unpatentable over Höglund³ (US 2008/0267845 A1, published Oct. 30, 2008), Choe (US 2007/0081923 A1, published Apr. 12, 2007), and Korobchansky (GB 2 069 680 A, published Aug. 26, 1981).

2. Claim 16 is rejected under 35 U.S.C. § 103 as unpatentable over Höglund, Choe, Korobchansky, and Berg (US 2,834,440, issued May 13, 1958).

ANALYSIS

Rejection 1

As for claim 14, the Examiner finds that Höglund discloses a gasket locating arrangement for a flow module, comprising a gasket (gasket 12), a channel in a channel plate (flow plate 1), a barrier plate (plate 40), and a locating means in the gasket and channel plate (shaped gasket edge and matching pattern of flow plate 1 forming an undercut recess). Non-Final Act. 3. The Examiner finds that Höglund does not disclose that gasket 12 has “a cut through pattern corresponding to the channel in the channel plate” and that “the cut through pattern in the gasket makes it possible for the flow of media or the flow of fluids in the channel of the channel plate to touch the barrier plate and to have no contacts with the gasket’s planar faces and little or minimized contact with any of the gaskets edges,” as claimed. *Id.* The Examiner relies on Choe for teaching these missing limitations of Höglund, finding that Choe discloses a plate reactor comprising a gasket (gasket 210) having a cut through pattern (opening 212) corresponding to a channel

³ This spelling is used by the Examiner and Appellants and is also shown in the “BIB DATA SHEET” of record in this application.

(channel 23) in a channel plate (block 20). *Id.* at 4 (citing Choe ¶ 74, Fig. 1). The Examiner reasons that it would have been obvious to a person of ordinary skill in the art to modify Höglund’s plate reactor and gasket to incorporate cut through patterns in the gasket, as taught by Choe, to prevent the gasket from affecting the formation of the flow passages. *Id.* (citing Choe ¶ 74).

Höglund discloses gasket 12 sandwiched between flow channel 2 and plate 40. *See* Höglund ¶ 96, Fig. 19. Appellants contend that one skilled in the art would understand that the only reason Choe’s gasket 210 has openings 212 is to allow fluid flow through gasket 210 and through adjacent upper block 10 and first unit block 20. Appeal Br. 20. Appellants assert there is no flow through Höglund’s barrier plate 40, and one skilled in the art would employ a gasket that seals across the entire face of the barrier plate and would be discouraged from employing a cut through pattern in the gasket. *Id.* Appellants contend that Höglund and Choe fail to provide any motivation or suggestion for modifying Höglund’s gasket 12 with a “cut through pattern” to make it “possible for the flow of media or the flow of fluids in the channel of the channel plate to touch the barrier plate,” as claimed. *Id.* To the contrary, Appellants contend, one skilled in the art would not be motivated to create a cut through pattern so that fluid could touch the barrier plate, at least because this modification would defeat the sealing purpose of the gasket. *Id.*

Appellants’ contentions are persuasive. The Examiner reasons that it would have been obvious to a skilled artisan to modify Höglund’s gasket to incorporate cut through patterns, as taught by Choe, “to prevent the gaskets from affecting the formation of the flow passages as recognized by Choe . . .

where there are channels on both sides of the gasket (210) for use in a stack reactor as taught by Choe.” Ans. 16 (emphasis added). However, the device shown in Figure 19 of Höglund does *not* have channels on both sides of gasket 12. In contrast, flow plate 1 on the bottom side of gasket 12 includes channels, but plate 40 on the top side of gasket 12 does not. *See* Höglund Fig. 19. Höglund discloses that plate 40 is placed on top of gasket 12 “to close or seal flow channel [sic] of the multipurpose module.” *See id.* ¶ 96, Fig. 19. The Examiner does not identify any disclosure or suggestion in Höglund that plate 40 could alternatively contain channels. Nor has the Examiner explained why one of ordinary skill in the art would have modified plate 40 of Höglund to result in Höglund’s device including “channels on both sides of gasket [12].” Without channels in plate 40, the Examiner has not explained persuasively why one of ordinary skill in the art would, regardless, have modified gasket 12 to include the claimed “cut through pattern corresponding to the channel in the channel plate,” or to include the “cut through pattern” to make it “possible for the flow of media or the flow of fluids in the channel of the channel plate to touch the barrier plate,” as claimed. *See* Non-Final Act. 3.

Accordingly, the Examiner has not articulated an adequate reason with a rational underpinning to modify the gasket of Höglund to include “a cut through pattern corresponding to the channel in the channel plate,” in which “the cut through pattern in the gasket makes it possible for the flow of media or the flow of fluids in the channel of the channel plate to touch the barrier plate and to have no contacts with the gasket’s planar faces and little or minimized contact with any of the gaskets edges,” as claimed.

The Examiner's use of Korobchansky's disclosure fails to cure the deficiencies of the Höglund and Choe combination discussed above. *See* Non-Final Act. 4–5. Thus, we do not sustain the rejection of claim 14, or of dependent claims 15 and 17–22, as unpatentable over Höglund, Choe, and Korobchansky.

Claim 23 recites a method of using gasket locating arrangements, comprising providing a gasket locating arrangement comprising the limitations recited in claim 14. *See* Appeal Br. 30–31 (Claims App.). We do not sustain the rejection of claim 23 as unpatentable over Höglund, Choe, and Korobchansky for the same reasons discussed above for claim 14.

Claim 24 recites a flow module comprising at least one gasket locating arrangement comprising the limitations recited in claim 14. *See id.* 31–32 (Claims App.). We do not sustain the rejection of claim 24, or of claims 25–27 depending therefrom, as unpatentable over Höglund, Choe, and Korobchansky for the same reasons discussed above for claim 14.

Rejection 2

The Examiner's use of Berg's disclosure to reject dependent claim 16 fails to cure the deficiencies of the rejection of parent claim 14 discussed above. Non-Final Act. 12. We do not sustain the rejection of claim 16 as unpatentable over Höglund, Choe, Korobchansky, and Berg for the same reasons discussed above for the rejection of claim 14.

DECISION

We reverse the rejections of claims 14–27.

REVERSED