NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

IN RE: HAIM S. RAIZ,
Appellant

2024-1533

Appeal from the United States Patent and Trademark Office, Patent Trial and Appeal Board in No. 16/536,175.

Decided: February 11, 2025

HAIM S. RAIZ, Cleveland Heights, OH, pro se.

KAKOLI CAPRIHAN, Office of the Solicitor, United States Patent and Trademark Office, Alexandria, VA, for appellee Coke Morgan Stewart. Also represented by ROBERT MCBRIDE, AMY J. NELSON, FARHEENA YASMEEN RASHEED.

Before LOURIE, BRYSON, and REYNA, *Circuit Judges*.

PER CURIAM.

Appellant Haim S. Raiz seeks to overturn a decision of the Patent Trial and Appeal Board rejecting claims as indefinite and as directed to unpatentable subject matter. We affirm.

I

Mr. Raiz's patent application is directed to computer software for effectuating bank transaction operations on a blockchain network. Claim 13 of the application, which is the only independent claim, recites the following:

> 13. A software system for a transaction node in combination with a digital blockchain network for speeding up simultaneous bank funds transfer between multiple banks, comprising:
>
> mean [sic] implementing mass service transaction method provided by at least three interacting tasks for servicing of parallel inbound and outbound flow of transaction requests with allocated pool of network accounts for each of the multiple banks;
>
> means for providing servicing for a plurality of an active transactions request by assignments service accounts and establishment [sic] plurality of bidirectional communication lines;
>
> means for monitoring and executing individual steps for each time cycle for the plurality of all an [sic] active independent transaction requests and in accordance with particular bank contract;
>
> means for creating state transaction dialog (STD) data for each active transaction and on each side;
>
> means for providing requests for API web terminal emulation for task three;
>
> means for providing funding multiple parallel transactions with cryptocurrency;
>
> means for employing hash code produced and transferred by recipients to sender to obtain real time confirmation of transaction from sender;
>
> means utilizing [sic] established communication lines for settlement according to contracts and transferring completion code.

The examiner rejected the claims as being directed to patent-ineligible subject matter under 35 U.S.C. § 101 and as indefinite under 35 U.S.C. § 112(b). On appeal, the Patent Trial and Appeal Board ("Board") sustained both rejections. *Ex parte Haim S. Raiz*, No. 2023-003502, 2024 WL 94310, at *16 (P.T.A.B. Jan. 8, 2024).

The Board agreed with the examiner that claim 13 is properly interpreted as a means-plus-function claim under 35 U.S.C. § 112(f). *Id.* at *3. The Board also agreed that the specification fails to disclose a structure that corresponds to the limitation "means [for] utilizing established communication lines for settlement according to contracts and transferring completion code." Specifically, the Board rejected Mr. Raiz's argument that the specification discloses the structure for a "monitor" that provides the transfer and reception functions for the bank's transactions and agreed with the examiner that the disclosed monitor lacks any structure to perform settlement of contracts or transfer completion code. *Id.*

The Board upheld the section 101 rejection because it agreed that claim 13 was directed to bank-to-bank remittance transaction operations, i.e., fund transfers. *Id.* at *6. The Board agreed that transferring funds is an economic practice and therefore a method of organizing human activity. *Id.* Thus, the Board found that the claim is directed to an abstract idea. *Id.* Next, the Board rejected Mr. Raiz's argument that the claim's use of a mass transaction service ("MTS") is an additional element that provides a technological improvement beyond the abstract idea. Mr. Raiz argued that use of MTS allowed the system to expand the number of communication channels and to service multiple transaction requests in parallel. The Board, however, found these benefits to be improvements to the abstract idea of processing bank-to-bank remittance transactions and not technological improvements. *Id.* at *8.

Turning to whether the claim included an inventive concept, the Board rejected Mr. Raiz's arguments that

using MTS in the claimed system was not obvious but instead new and novel. The Board explained that the inventive concept inquiry is distinct from an obviousness inquiry, so Mr. Raiz's arguments of novelty failed to refute the examiner's finding that the claim contained no inventive concept. *Id.* at *10.

II

Section 112(f) of the Patent Act permits a patentee to "recite, in the claim, a function without reciting structure for performing the function and limit the claims to the structure, materials, or acts disclosed in the specification (or their equivalents)." *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1365 (Fed. Cir. 2022). We refer to this type of claim language as "means-plus-function" claiming. Whether claim language invokes 35 U.S.C. § 112(f) is a legal question that we review de novo. *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1346 (Fed. Cir. 2015).

We presume that a claim has been drafted in means-plus-function format when the claim uses the term "means." *Dyfan*, 28 F.4th at 1365. Here, the limitation at issue is "means [for] utilizing established communication lines for settlement according to contracts and transferring completion code." The Board found that use of "means" in this limitation gives rise to the presumption that the limitation is a means-plus-function limitation. Mr. Raiz does not meaningfully challenge that conclusion. Given the unrebutted presumption, we agree with the Board's conclusion.

Having determined the limitation to be a means-plus-function limitation, we first identify the claimed function and then determine what structure, if any, is disclosed in the specification. *Rain Computing, Inc. v. Samsung Elecs. Am., Inc.*, 989 F.3d 1002, 1007 (Fed. Cir. 2021). If the specification does not disclose any adequate structure, the claim is indefinite. *Id.* The determination of the claimed function and the corresponding structure are both matters of claim construction, which is an issue of law that we

review de novo. *In re Aoyama*, 656 F.3d 1293, 1296 (Fed. Cir. 2011).

In its decision upholding the examiner's rejection of the claims, the Board found that the claimed function is to perform settlement of contracts and transfer completion codes. *See Raiz*, 2024 WL 94310, at *3. Mr. Raiz does not dispute that conclusion. Based on the plain language of the claim limitation and Mr. Raiz's acquiescence, we agree with the Board as to the claimed function. What Mr. Raiz does dispute is whether an adequate structure is disclosed in the specification. Before both the Board and now us, Mr. Raiz identifies a monitor as the structure corresponding to the recited function.[1]

The specification discusses the structure of the monitor twice. First, it explains that the monitor "is built in accordance with mass service solution and bank transaction productivity requirements." App. 18. Second, it explains that the monitor is

> on both sides seamlessly connected to host bank's computer resources to validate and record payment transactions. . . . Monitor provide[s] functions of transfer and reception of all running on blockchain bank's transactions. To minimize total service time and r[a]ise number of parallel servicing requests for banks, monitor could provide multiple service for steps of different request[s] at each cycle.

App. 23.

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[1] In his reply brief, Mr. Raiz identifies the structure as two interacting nodes with two Tasks 2 providing functionality of sequential dialogs for the implementation of settlement contracts. This argument is new on reply and therefore considered waived. *Becton Dickinson & Co. v. C.R. Bard, Inc.*, 922 F.2d 792, 800 (Fed. Cir. 1990).

Mr. Raiz does not argue that the disclosed monitor is anything more than a general-purpose computer or processor. Instead, Mr. Raiz explains that implementation of the application is based on the contract, which provides structure and actions, and that the monitor simply executes the contract. Br. 12–13. This description of the role of the monitor is consistent with the disclosures in the specification, which also do not suggest that the monitor is anything other than a general-purpose computer that can execute software.

"If the function is performed by a general-purpose computer or microprocessor, then the second step generally further requires that the specification disclose the algorithm that the computer performs to accomplish that function." *Rain Computing*, 989 F.3d at 1007. In rare cases, an algorithm does not need to be disclosed if any general-purpose computer without any special programming can perform the function. *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012).

It is not apparent that a monitor without special programming can settle contracts and transfer completion code. To the contrary, Mr. Raiz explains that the "monitor supports implementation of the contract" but that it is the "contract software" that provides the structure and actions. Br. 12; *see also id.* at 11 ("The contract presents software implemented with two counterparts for two blockchain's accounts on two interacting nodes."). We understand Mr. Raiz's explanation to mean that the monitor is a general-purpose computer that executes specialized software to settle contracts and transfer completion code, i.e., an algorithm.

Although Mr. Raiz refers to the algorithm as contract software, the specification does not sufficiently disclose the algorithm. We have explained that in order to qualify as the structure corresponding to the function recited in a means-plus-function claim, an algorithm must be expressed as a "step-by-step procedure for accomplishing a

given result." *Ergo Licensing*, 673 F.3d at 1365 (citation omitted). Here, the specification does not provide a step-by-step explanation of the contract software. Rather, it notes that all different types of transactions between banks can be presented as a bank contract, that new types of contracts can be programmed and used in the invention, and that the contract can be executed in one step or fragmented into multiple steps. App. 23. In other words, the specification acknowledges that there are many ways, some still unknown, to implement the contract software. This conclusion is consistent with Mr. Raiz's explanation that "[d]isclosure of settlement requires a description of the contracts for settlement because different settlements are implemented by different contracts." Br. 11.

Mr. Raiz explains that the "contract presents software implemented with two counterparts for two blockchain[] accounts on two interacting nodes." *Id.* Mr. Raiz then provides further details about the execution of the contract, namely that the contract will execute in a step-wise manner with information being sent between two nodes. *Id.* at 11–12. But these high-level characterizations of how to run the contract do not explain how the contract executes settlement or transfers completion code, and we do not find any more specific disclosures regarding the execution of settlement or transference of completion code in the specification. This conclusion is consistent with Mr. Raiz's admission that the "disclosure did not provide a particular contract for settlement that could be implemented for bank transactions." *Id.* at 12.

In his reply brief, Mr. Raiz provides more detail regarding the algorithm, including describing that data is transferred, contract functions are initiated based on a changed state in an account, direct lines are created, and funds are sent using a public key. Procedurally, these arguments are new on reply and therefore waived. *Becton Dickinson*, 922 F.2d at 800. On the merits, these details merely describe the other limitations in the claims; they do not explain the

steps that are taken to settle contracts and transfer completion code using established communication lines.

In sum, we find that the specification's disclosures regarding the contract software do not provide sufficient structure for the execution of settlement of contracts and transference of completion code, rendering claim 13 indefinite. *See, e.g.*, *Rain Computing*, 989 F.3d at 1008.

In passing, Mr. Raiz suggests that claim 18 "could be implemented as settlement according to contract" and that claim 20 describes a contract. Br. 2. Claim 18 describes a way to implement near real time transaction clearance using a hash code. *See* App. 71. It is not clear from the claim language or from the specification that claim 18 describes the structure that executes settlement according to contract. Claim 20 recites adding new contracts and taking a "sequence of action" according to the contract. App. 92. We read claim 20 as simply instructing that code should be executed and not disclosing the steps for executing the settlement of the contract or transfer of completion code. Neither dependent claim adds sufficient structure to render the claimed invention definite, and Mr. Raiz has not argued that any other dependent claims provide sufficient structure to avoid indefiniteness. Accordingly, we agree with the Board that the dependent claims are also indefinite.

Because we find the claims invalid under 35 U.S.C. § 112, we need not reach the issue of whether the claims are patent-eligible under 35 U.S.C. § 101.

No costs.

AFFIRMED