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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID BRETT CURRIN, C. CLARK EASTER,
BRENDAN MARSH, EDMUND BENNETT RICHARDS, and
ROGELIO FERNANDO CASTILLO AQUEVEQUE

Appeal 2018-008460
Application 14/793,652
Technology Center 2100

Before ROBERT E. NAPPI, BETH Z. SHAW, and JOYCE CRAIG,
Administrative Patent Judges.

SHAW, *Administrative Patent Judge.*

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant,¹ United States Infrastructure Management Company, appeal from the Examiner's decision to reject claims 1–20. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ We use the word “Appellant” to refer to “Applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as t4 Spatial LLC. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to advanced sanitary sewer infrastructure management. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for managing a sanitary sewer infrastructure, the method comprising using at least one hardware processor to:

re-project a plurality of representations of infrastructure assets, from one or more computer-aided design (CAD) tiles, from a plane coordinate system into a geospatial coordinate system, such that each of the re-projected plurality of representations of infrastructure assets is associated with geospatial coordinates;

store each of the re-projected plurality of representations of infrastructure assets and its associated geospatial coordinates in one or more databases;

and, at each of a plurality of times within a subsequent time period, receive an asset identifier and geospatial coordinates, associated with the asset identifier and collected in the field, from a user device, wherein the received geospatial coordinates correspond to a geospatial location of an infrastructure asset comprising a manhole, identify a stored re-projected representation of the manhole from among the stored re-projected plurality of representations of infrastructure assets that is associated with the received asset identifier and which represents the manhole, adjust the stored geospatial coordinates associated with the stored re-projected representation of the manhole in the database based on the received geospatial coordinates associated with the received asset identifier, identify a stored re-projected representation of a pipe segment, connected to the manhole, from among the stored re-projected plurality of representations of infrastructure assets that were re-projected from a same one of the one or more CAD tiles as the stored re-projected representation of the manhole, and adjust the stored geospatial coordinates associated with the stored re-projected representation of the pipe segment based on the connection between the stored re-projected representation of the pipe

segment and the stored re-projected representation of the manhole.

REJECTIONS

The Examiner rejected claims 1–8, 10, 13–16, 19, and 20 under 35 U.S.C. § 103 as being unpatenable over “GIS-Based Sanitary Sewer Evaluation Survey” by Halfawy et al (Halfawy), “Enhancing Wastewater Utility Mapping and Flow Line Analysis with Geographic Information Systems (GIS)” by Nicole Chiara (Lynch) Peterson, further in view of definition of "rubber-sheeting" definition from ESRI (ESRI).

The Examiner rejected claims 9, 11, 12, 17, and 18 under 35 U.S.C. § 103 as being unpatenable over Halfawy, Peterson, and ESRI further in view of "AN INTEGRATED FRAMEWORK FOR GIS-BASED CIVIL INFRASTRUCTURE MANAGEMENT SYSTEMS" by Mahmoud R. Halfawy et al. (Halfawy2).

OPINION

Independent Claim 1 is directed to a method for managing a sanitary sewer infrastructure. The Examiner relies on the combination of Halfawy and Peterson to teach an adjustment of a pipe segment representation based on its connection to an adjusted manhole representation.

Appellant argues the Examiner improperly relied on inherency to teach “rubber-sheeting.” App. Br. 6–8; Reply Br. 3–9. The Examiner points out that the claim does not recite “rubber-sheeting,” but only recites a “connection” between the pipe and the manhole, and adjusting both the pipe and the manhole. Ans. 5. We agree with the Examiner that the claim does not recite “rubber-sheeting.” Therefore, Appellant’s arguments with respect to rubber-sheeting are not commensurate in scope with the claim limitations.

Appellant also argues

The cited portions of Halfawy merely disclose that sewer lines may be connected to manholes. Based on this combination of disclosures, including Peterson's implication to simply correct the locations of structures *individually*, a person of ordinary skill in the art, at the time of invention, would have been motivated to correct the location of a manhole, as measured in the field, and separately correct the location of a pipe segment, as measured in the field. Such a person would not have been motivated to automatically adjust the location of the pipe segment based on its connection to an adjusted location of a manhole, as would be required under the Office Action's interpretation.

App. Br. 9 (emphasis added).

We are not persuaded by Appellant's unsupported attorney argument that Peterson teaches only how to "correct the locations of structures individually." App. Br. 9. The Examiner finds Halfawy teaches a connection between the pipe and manhole and Peterson teaches adjusting the structures, plural. *Id.* We agree with the Examiner's findings because Peterson explains that when coordinates did not overlay properly "[e]xtra steps were required to move the structures to their correct locations." Peterson, p. 5. We agree with the Examiner (Ans. 10) that the use of plural "structures" in Peterson teaches that structures are moved in unison, and not merely moved individually.

Accordingly, we sustain the Examiner's rejection of claim 1 under 35 U.S.C. § 103. For the same reasons, we sustain the Examiner's rejection of independent claims 19 and 20, for which Appellant did not present new arguments. We also sustain the rejection of dependent claims 2–18, for which Appellant presented no additional arguments.

DECISION

We affirm the rejection of claims 1–20.

DECISION SUMMARY

Claims Rejected	Basis	Affirmed	Reversed
#1-8, 10, 13-16, 19, and 20	§ 103	#1-8, 10, 13-16, 19, and 20	
9, 11, 12, 17, and 18	§ 103	9, 11, 12, 17, and 18	
Overall Outcome		1–20	

FINALITY AND RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED