



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

Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
Row 1: 14/729,178, 06/03/2015, ROBERT BENNETT, 2015-0201_7785-1175A, 4208

92384 7590 03/06/2020
AT&T Legal Department - G&G
Attention: Patent Docketing
Room 2A-212
One AT&T Way
Bedminster, NJ 07921

EXAMINER

MILLS, DONALD L

ART UNIT PAPER NUMBER

2462

NOTIFICATION DATE DELIVERY MODE

03/06/2020

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):

docketing@ggip.com
eOfficeActionDocs@att.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ROBERT BENNETT, PAUL SHALA HENRY,
IRWIN GERSZBERG, FARHAD BARZEGAR,
DONALD J. BARNICKEL and THOMAS M. WILLIS III¹

Appeal 2019-001806
Application 14/729,178
Technology Center 2400

Before JEFFREY S. SMITH, IRVIN E. BRANCH, and
AMBER L. HAGY, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ Appellant identifies the real party in interest as AT&T Intellectual Property I, L.P. Appeal Br. 2. We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a).

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134(a) from the rejection of claims 1, 2, 4–12, and 14–22, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Representative Claims

1. A client node device comprising:

a radio configured to wirelessly receive first channel signals from a communication network; and

an access point repeater (APR) configured to launch the first channel signals on a guided wave communication system as first guided electromagnetic waves at non-optical frequencies that are bound to a physical structure of a transmission medium, wherein the first guided electromagnetic waves are guided by the transmission medium to propagate along a surface of the transmission medium without requiring an electrical return path, and wherein the APR comprises:

an amplifier configured to amplify the first channel signals to generate amplified first channel signals;

a channel selection filter configured to select one or more of the amplified first channel signals to wirelessly communicate to at least one client device;

an antenna configured to wirelessly communicate the one or more of the amplified first channel signals with the at least one client device;

a coupler configured to guide the amplified first channel signals to the transmission medium of the guided wave communication system so as to generate second guided electromagnetic waves that propagate along the surface of the transmission medium without requiring the electrical return path; and

a channel duplexer configured to transfer the amplified first channel signals to the coupler and to the channel selection filter.

11. A method comprising:

wirelessly receiving downstream channel signals from a communication network;

launching the downstream channel signals on a guided wave communication system as guided electromagnetic waves that are bound to a surface of a transmission medium, wherein the guided electromagnetic waves are guided by the transmission medium to propagate along the surface of the transmission medium without requiring an electrical return path;

amplifying the downstream channel signals to generate amplified downstream channel signals;

selecting one or more of the amplified downstream channel signals for wireless transmission to at least one client device via an antenna; and

wirelessly transmitting the one or more of the amplified downstream channel signals to the at least one client device via the antenna.

Prior Art

Name	Reference	Date
Abraham	US 6,014,386	Jan. 11, 2000
Mollenkopf	US 2004/0113756 A1	June 17, 2004
Elmore	US 2004/0169572 A1	Sept. 2, 2004
Nishizaka	US 2011/0235536 A1	Sept. 29, 2011
Barzegar	US 2014/0355525 A1	Dec. 4, 2014
Soto	US 2015/0078756 A1	Mar. 19, 2015

Examiner's Rejections

Claims 1, 2, 4–12, and 14–22 stand provisionally rejected on the ground of nonstatutory double patenting over claims 1–20 of co-pending Application No. 15/070,045.

Claims 1, 2, 4–8, 11, 12, 15, and 17–20 stand rejected under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, and Barzegar.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, Barzegar, and Soto.

Claims 14, 16, 21, and 22 stand rejected under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, Barzegar, and Abraham.

ANALYSIS

Obviousness-type double patenting rejection

The Examiner provisionally rejected claims 1, 2, 4–12 and 14–22 for obviousness-type double patenting over claims 1–20 of U.S. Patent Application No. 15/070,045. Final Act. 2–5. Appellant states that it will consider an appropriate course of action upon an indication of allowable subject matter. Reply Br. 5. Therefore, we summarily sustain the rejection.

Section 103 rejections of claims 1, 2, 4–10, 21, and 22

Claim 1 recites “a channel duplexer configured to transfer the amplified first channel signals to the coupler and to the channel selection filter.” Appellant contends that “[t]he claim element is specifically referred to as a channel ‘duplexer’, terminology used to describe a particular structural component used on RF communications,” and that “[n]ot only is

the summation device 424, not a duplexer, the summation device 424 of Mollenkopf does not transfer the amplified first channel signals to the channel selection filter.” *Id.* at 3. We agree with Appellant.

We do not sustain the rejections of claim 1 and corresponding dependent claims 2, 4–10, 21, and 22.

Section 103 rejection of claims 11, 12, 15, and 17–20

Claim 11 recites “launching the downstream channel signals . . . as guided electromagnetic waves . . . to propagate along the surface of the transmission medium without requiring an electrical return path” and “amplifying the downstream channel signals.” Claim 19 recites similar limitations. The Examiner relies on Elmore to launching the downstream channel signals as guided electromagnetic waves that propagate along the surface of the transmission medium, and Mollenkopf to teach amplifying signals. Final Action 6–8.

Appellant contends that the coupler of Mollenkopf induces data signals that propagate inside a wire. Appeal Brief 6–8. Appellant contends that Elmore generates guided electromagnetic waves that travel along the outside of a wire. *Id.* at 8. Appellant contends that combining the coupler of Mollenkopf with the teachings of Elmore would impermissibly change the function of the coupler of Mollenkopf from inducing current signals inside a wire to inducing guided electromagnetic waves that travel along the outside of the wire. *Id.* at 7–8 (citing MPEP § 2143; *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)).

The Examiner finds that Mollenkopf suggests that its communications device (which includes amplifiers as shown in Figure 6) would work with the coupler of Elmore, which launches downstream channel signals that propagate along the surface of a transmission medium. Ans. 12–14. According to the Examiner, paragraph 32 of Mollenkopf teaches that its coupler is interchangeable with other couplers, such as the coupler disclosed in paragraph 32 of Elmore. Ans. 13–14.

Appellant does not address the Examiner’s findings. In particular, Appellant has not explained why replacing the coupler of Mollenkopf with the coupler of Elmore would impermissibly change the functions of the other components of Mollenkopf, such as the amplifiers shown in Figure 6. *See KSR Int’l*, 550 U.S. at 416 (“The Court recognized that when a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result.”).

We sustain the rejection of independent claims 11 and 19, and corresponding dependent claims 12, 15, 17, 18, and 20.

Section 103 rejection of claims 14 and 16

Appellant contends that the Examiner’s description of Mollenkopf in the rejection of claims 14 and 16 is actually a description of Abraham. Appeal Brief 10 (citing Final Action 12). Appellant also contends that the rejection of claims 14 and 16, both of which depend from claim 11, does not include Barzegar, which is included in the rejection of claim 11. *Id.* at 10–11. The Examiner, in the Answer, corrected the rejection statement to

include Mollenkopf and Barzegar, and submits that their absence was a typographical error. Ans. 16.

We sustain the rejection of claims 14 and 16.

DECISION

The provisional rejection of claims 1, 2, 4–12, and 14–22 on the ground of nonstatutory double patenting over claims 1–20 of co-pending Application No. 15/070,045 is affirmed.

The rejection of claims 1, 2, and 4–8 under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, and Barzegar is reversed.

The rejection of claims 9 and 10 under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, Barzegar, and Soto is reversed.

The rejection of claims 11, 12, 15, and 17–20 under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, and Barzegar is affirmed.

The rejection of claims 14 and 16 under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, Barzegar, and Abraham is affirmed.

The rejection of claims 21 and 22 under 35 U.S.C. § 103 as unpatentable over Nishizaka, Elmore, Mollenkopf, Barzegar, and Abraham is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 4–12, 14–22		Nonstatutory double patenting	1, 2, 4–12, 14–22	
1, 2, 4–8, 11, 12, 15, 17–20	103	Nishizaka, Elmore, Mollenkopf, Barzegar	11, 12, 15, 17–20	1, 2, 4–8
9, 10	103	Nishizaka, Elmore, Mollenkopf, Barzegar, Soto		9, 10
14, 16, 21, 22	103	Nishizaka, Elmore, Mollenkopf, Barzegar, Abraham	14, 16	21, 22
Overall Outcome			1, 2, 4–12, 14–22	

TIME PERIOD FOR 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