

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 28

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HENRY B. WHEELER and DAOZHENG LU

Appeal No. 2002-1380
Application No. 08/786,270

HEARD: February 19, 2003

Before GROSS, LEVY, and SAADAT, Administrative Patent Judges.
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-28, 49-53, 58-61, and 66-76. Claims 29-34 and 54-57 have been allowed.

BACKGROUND

Appellants' invention relates to a source detection apparatus and method for audience measurement. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced as follows:

1. A system for identifying a local signal source supplying a program signal to a display of a monitored receiver, wherein the local signal source and the monitored receiver are located in a household, and wherein the system comprises:

a program signature extractor arranged to extract a reference program signature representative of an output of the monitored receiver and to extract a source program signature representative of the program signal supplied by the local signal source, wherein the program signature extractor is located in the household; and,

a signal source identifier arranged to identify either one of the local signal source and the monitored receiver as a local source of the program signal supplied to the display in response to the reference program signature and the source program signature.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Fisher et al. (Fisher)	5,294,977	March 15, 1994
Mischler	5,608,445	March 4, 1997
Thomas	(PCT) WO 95/12278	May 4, 1995

Claims 1-13, 15-27, 49-53, 59-61, and 66-71¹ stand rejected under 35 U.S.C. § 102(b) as being anticipated by Thomas.

Claims 14, 28, 75, and 76 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas.

¹ The examiner omits claims 72 and 73 in the statement of the rejection, but specifically refers to claims 72 and 73 in the body of the rejection (final rejection, page 3). Accordingly, we consider claims 72 and 73 to be included in this rejection.

Claims 58 and 74 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomas in view of either Mischler or Fisher.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the final rejection (Paper No. 15, mailed September 5, 2000) and the examiner's answer (Paper No. 20, mailed April 19, 2001) for the examiner's complete reasoning in support of the rejections, and to appellants' brief (Paper No. 19, filed February 22, 2001) and reply brief (Paper No. 21, filed June 21, 2001) for appellants' arguments thereagainst. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in

reaching our decision, appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

Upon consideration of the record before us, we reverse, for the reasons set forth by appellants, and add the following comments. We begin with the rejection of claims 1-13, 15-27, 49-53, 59-61, and 66-73 under 35 U.S.C. § 102(b) as being anticipated by Thomas. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention. RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). In other words, there must be no difference between the claimed invention and the reference disclosure, as viewed by a person of ordinary skill in the field of the invention. Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

The examiner's position (final rejection, page 2) is that Thomas uses signature extraction and comparison to determine the local source of the program. The examiner (id.) relies upon pages 40 and 41 of Thomas for a teaching of identifying the local source of a program. The examiner argues that Thomas also refers to several patents, including Patent No. 4,697,209 for a teaching of identifying the source and its location. In addition, the examiner (answer, page 5) refers to the paragraphs bridging pages 33, 34, an 36, 37 for a teaching of using "time stamps and codes . . . to determine if a program is viewed in real or non-real time (and therefore the local source.)"

Appellants assert (brief, pages 14-16) that the portions of pages 40 an 41 of Thomas merely disclose that a program, whether broadcast or supplied from a tape to a monitored receiver, can be identified from the output of the monitored receiver and do not disclose identification of the local source of the program. Appellants further assert (id.) that in Thomas, a movie displayed may be from either a tape player or a broadcast source such as a network station, cable head end, or satellite. Thomas can identify the movie, but cannot determine whether the movie was broadcast to the receiver, or was supplied to the monitored receiver from a tape. Appellants further assert (brief, page 15)

that claim 1 requires extracting signatures from both the monitored receiver and the local signal source, and using both signatures to identify the local source of the program supplied to the display of the monitored receiver. It is argued that in Thomas, signatures are not extracted from both the monitored receiver 24 and the VCR 132 in order to determine which is the local source of the program displayed on the monitored receiver. It is additionally argued that the devices are not local because they are at different sites.

With regard to independent claim 15, appellants assert (brief, pages 16-18) that Thomas merely discloses that a program, whether broadcast or supplied from a tape to the monitored receiver, can be identified from the output of the monitored receiver, but that Thomas does not disclose identification of the local source itself. Thus, Thomas does not disclose how to determine whether the program was broadcast or played from a tape. Appellants acknowledge that Thomas uses signature extractors, but assert that in Thomas, the signature extractor is used only to identify a program, whereas the signature extractor of independent claim 15 is used to identify the local source of the program. Appellants additionally assert (id.) that in Thomas, signatures are not extracted from three devices in the

household to determine which of the three devices is the local source of the program signal supplied to the display of the monitored receiver 24.

With regard to independent claim 49, appellants assert (brief, pages 18-20) that claim 49 distinguishes from Thomas for three reasons. Firstly, Thomas does not disclose comparing the output of a source receiver to the output of a monitored receiver in order to determine whether the monitored receiver is the local source of the program being displayed by the monitored receiver. Secondly, the devices from which the signatures are extracted from a monitored receiver are not local to one another because they are located at different sites. Thirdly, Thomas does not disclose stepping a source receiver to a second channel if the output of the source receiver corresponding to a first channel and the output of the monitored receiver do not match, so that the output of the source receiver at the second channel can be compared to the output of the monitored receiver.

With respect to independent claim 59, appellants assert (brief, pages 20 and 21) that Thomas merely discloses that a program, whether broadcast or supplied from a tape to the monitored receiver, can be identified from the output of the monitored receiver, but that Thomas does not disclose

identification of the local source itself. Thus, Thomas does not disclose how to determine whether the program was broadcast or played from a tape. It is further argued, (id.) that because the devices from which signatures are extracted and compared are at different sites, these devices are not local to one another.

We find that Thomas is directed to an audience measurement system which identifies the programs or stations of televisions or radios that are watched or listened to by an audience (page 1). In the summary of the invention, Thomas states (page 9) that the invention collects data representative of selected programs rather than of tuned stations, including which programs were selected for viewing, which households viewed the program, and what time the program was viewed. A central office automatically determines a program name for each monitored, encoded program. The system identifies a program which is broadcast from a signal source and to which a household is tuned. A reference receiver receives the broadcast at a reference site. A program signature extractor is coupled to the reference receiver to extract and store a reference from the program. The reference signature is compared to the program signature to create a program identifying viewing record corresponding to the program. A household code reader reads an ancillary code of the program and stores the

ancillary code of the program in a household memory. A reference code reader reads the ancillary code of the program received in the reference site, and stores the ancillary code in a second memory. The ancillary codes in the first memory are compared to data stored in a code-program name library to create a program identifying viewing record corresponding to the program. The auxiliary code retrieved from the second memory is compared to the data stored in the code-program name library to create a program identifying broadcast record corresponding to the program (pages 10 and 11).

As shown in figures 1 and 2, the audience measurement system includes a household metering apparatus 14 located in a household 12. A people meter 16 allows audience members to identify themselves (pages 19 and 20). Reference apparatus 32 (figure 2) receives signals from program signal sources 30. Central office 36, installed at central site 38, collects data from household metering apparatus 14, reference apparatus 32, and from external program records sources (page 20). Program signals can be distributed by coaxial cables, rented video tapes, video disks, and/or the like. Household metering apparatus 14 also includes tuning measurement equipment 54, including sensors 56, household code readers 60 and household signature extractors 62. Household

code reader 60 reads video codes inserted into a video line of one or more vertical blanking intervals. Signature extractor 62 collects signatures from the received household signals from which a code cannot be read (pages 24-26). Tuner 70 of the reference apparatus 32 is tuned to each of the possible channels i.e., program sources that the household can receive. Reference apparatus 32 also includes a signature extractor 72 for each received channel. Reference extractor 72 operates similar to household signature extractor 62 to extract reference signatures that can be compared to the program signatures extracted by household signature extractors 62 (page 27).

Reference apparatus 32 further includes program replication apparatus 78 which creates a replica of a stored program and stores the replica in a memory 80, so that it can be retrieved by a central office computer 82. At the central office, a human operator can view the program on terminal 84 for the purpose of identifying non-encoded programs received at local monitoring site 34 (page 29). The reference apparatus 32 may also incorporate a reference code reader 86 for each received channel. The code read by the reference code reader 86 is the same as the code read by household code reader 60. The code read by 86 is compared to code and program data stored in code-program name

library 88 at the central site 38 in an effort to identify the programs broadcast by a given broadcast source at a given time (page 29). If an ancillary code is present, there is no need to additionally extract signatures. However, if no ancillary code is present, signatures must be extracted so that the program or channel can be identified (pages 32 and 33). As shown in figure 3, a clock 108 at the household time stamps either the ancillary code read or the signature extracted (page 33). This use of clock 108 ignores time-shifted viewing of programs recorded in the home and time independent viewing of rental tapes (pages 33 and 34). Figure 4 shows a tuning record, including a flag field 122, a type field 124, a code field 126, a program signature field, 128, and a time data field 130 (pages 35 and 36). Clock 110 at local monitoring site 34 relates the data collected from the local monitoring site 34 with the data collected at the household 12. For example, the times of signature extraction are compared so that the time interval between the signatures can be calculated. The time interval between signatures is useful as a search parameter in identifying non-real time viewing (pages 36 and 37).

As shown in figure 5, if an ancillary code is detected, the program ID is determined at block 148, based upon the detected

ancillary code and the code-program information stored in code-program library 88 (page 38). Figure 6 shows two different examples of reference records. In the first record, no replication data is shown because an ancillary code was detected. In the second record, replication data is shown because no ancillary code was detected (pages 38 and 39). For a small system, central office functions may be done at a single location. For a large, e.g., nationwide system, some functions such as identification of real time viewing may be done at a hierarchy of central offices and other functions such as identification of viewing of rented tapes may be done at a single master central office (page 40). Records are processed in accordance with the routine shown in figure 7 (id.).

As shown in figure 7, block 180 determines whether tuning records 120 from the household include ancillary codes. If tuning records 120 include ancillary code, the program Ids are obtained from program code library 88, and the program viewing records are stored in block 182. The records indicate the programs that were watched. This process, however, serves to identify both real-time viewing and non real-time viewing such as playback of an in-home recording of an encoded broadcast program. Block 184 compares the tuning records having no ancillary code to the

reference records from the local monitoring sites 34 that are stored in master central reference signature library 76 (page 41). If block 184 cannot match tuning records, block 186 matches program signatures in the tuning records to reference signatures in the master central reference signature library 76 which are time independent signatures representative of signatures characterizing a movie as a movie that is available as a rental video tape (pages 43 and 44). In addition, tuning records which are not identified are labeled as "other" and stored as unidentifiable by block 182 (pages 43 and 44).

From the disclosure of Thomas, we find that Thomas identifies the program being watched or listened to, and can identify the program whether the program is broadcast or whether the program is from a VCR. With respect to the portions of Thomas referred to by the examiner, we agree with appellants (reply brief, pages 3 and 4) that:

Perhaps the Examiner thinks that the real-time and time-shift discussions in the Thomas published PCT application indicate source detection. To the contrary, however, the Thomas published PCT application merely discusses real-time and time-shift viewing because of the problems that time-shifted viewing creates with respect to program identification. On the other hand, if the Thomas published PCT application dealt with source detection in a VCR environment, the Thomas published PCT application would have discussed comparing signatures taken from the output of the

television to signatures taken from the output of the VCR (or some other strategy) to determine if the tuner of the television or the VCR is the source of the program being viewed. However, the Thomas published PCT application contains no such discussion.

We find that Thomas distinguishes between determining the name of a program that is a time-shifted program and determining the local source of the program. Even though Thomas can identify the name of a program that has been time-shifted, we find no determination in Thomas as to the local source of the program, such as from a DVD, VHS tape, game, etc. We find a distinction, albeit a small one, between a determination that an identified video title is available as a rental tape, and a determination that the local source of the video is a rental tape, in contrast to a video that is merely time shifted. The tuning records of Thomas, as set out in figures 4 and 6, do not indicate the local source of the program. In addition, the records processed in figure 7 of Thomas do not indicate the local source of the program. Instead, the records processed indicate either the program identified, or indicate that the attempt to determine the program ID was unsuccessful (block 188). In addition, Thomas specifically indicates that the program viewing records stored in block 182 indicate those programs which were watched at the indicated times. Accordingly, we find that Thomas does disclose

determination of a displayed program, but does not disclose any means or structure for identifying the local source of the program. We would have to resort to speculation to find otherwise. The examiner may not resort to speculation or unfounded assumptions to supply deficiencies in establishing a factual basis. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967).

With respect to the examiner's reference to patent(s) discussed in Thomas, if the examiner wants to rely upon these patent(s) for a teaching of determining the local source of a displayed program, the examiner should apply these patent(s) against the claim(s) and specifically point out the portions of the patent(s) being relied upon.

From all of the above, we find that Thomas does not anticipate claims 1-13, 15-27, 49-53, 59-61, and 66-73. Accordingly, the rejection of claims 1-13, 15-27, 49-53, 59-61, and 66-73 is reversed.

We turn next to the rejection of claims 14, 28, 75, and 76 under 35 U.S.C. § 103(a) as unpatentable over Thomas. We reverse the rejection of these claims as we find no suggestion of the desirability of providing Thomas with the ability to determine the local source of the displayed program.

We turn next to the rejection of claims 58 and 74 under 35 U.S.C. § 103(a) as unpatentable over Thomas in view of Mischler and Fisher. We reverse the rejection of claims 58 and 74 under 35 U.S.C. § 103(a) because Mischler and Fisher do not make up for the basic deficiencies of Thomas.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1-13, 15-27, 49-53, 59-61, and 66-73 under 35 U.S.C. § 102(b) is reversed. The decision of the examiner to reject claims 14, 28, 58, and 74-76 under 35 U.S.C. § 103(a) is reversed.

REVERSED

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