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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GREG GILLIS, BRENT A. GOETZL, LANCE TRACY, JAMES L. JAMESON, and CHRIS MORGAN

Appeal 2016-004733
Application 12/637,848[1]
Technology Center 2600

Before CARLA M. KRIVAK, HUNG H. BUI, and
JEFFREY A. STEPHENS, *Administrative Patent Judges*.

BUI, *Administrative Patent Judge.*

DECISION ON APPEAL

Appellants seek our review under 35 U.S.C. § 134(a) from the Examiner's Final Rejection of claims 1–12, 14–16, and 19–23, which are all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[2]

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[1] According to Appellants, the real party in interest is Radio Systems Corporation. App. Br. 3.

[2] Our Decision refers to Appellants' Appeal Brief filed August 17, 2015 ("App. Br."); Reply Brief filed April 1, 2016 ("Reply Br."); Examiner's Answer mailed February 1, 2016 ("Ans."); Final Office Action, mailed February 20, 2015 ("Final Act."); and original Specification, filed December 15, 2009 ("Spec.").

STATEMENT OF THE CASE

Appellants' Invention

Appellants' invention relates to "an animal training device for delivering a stimulus to an animal." Spec. ¶ 3. The animal training device includes a stimulus delivery device having an adjustable stimulus intensity range, whereby a range of available intensities is selected from a plurality of discrete ranges that have been predefined or defined by a user. Spec. ¶ 10; Abstract; Title. The intensity of the stimulus to be delivered to the animal is selected from the intensities within the selected range. *Id.*

Representative Claims

Claims 1, 11, 16, and 21–23 are independent. Representative claim 1 is reproduced below with disputed limitations in *italics*:

> 1. An animal training system comprising:
>
> a transmitter device that transmits an activation signal, the activation signal indicating a selected one of a plurality of intensities within a discrete range of available intensities to be delivered to an animal, *the discrete range of available intensities being selectable by a user from a plurality of discrete ranges of intensities such that only the plurality of intensities within a selected discrete range of intensities are available to be delivered to the animal, each discrete range of intensities having an upper limit and a lower limit different than the upper limit and the lower limit of the other discrete ranges, respectively;* and
>
> a stimulus delivery device adapted to be carried by the animal, said stimulus delivery device being configured to receive the activation signal and to deliver to the animal a stimulus having the selected one of the plurality of intensities.

App. Br. 31–34 (Claims Appendix).

Evidence Considered

Brose	US 4,898,120	Feb. 6, 1990
Stapelfeld et al	US 6,079,367	June 27, 2000
Mainini et al.	US 2007/0221138 A1	Sept. 27, 2007

Examiner's Rejections

(1) Claims 1–12, 14–16, 19, 20, 22, and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mainini and Stapelfeld. Final Act. 2–16.

(2) Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mainini, Stapelfeld, and Brose. Final Act. 17–19.

Issue on Appeal

Based on Appellants' arguments, the dispositive issue on appeal is whether the combination of Mainini and Stapelfeld teaches or suggests the disputed range selection limitation, i.e.,

> the discrete range of available intensities being selectable by a user from a plurality of discrete ranges of intensities such that only the plurality of intensities within a selected discrete range of intensities are available to be delivered to the animal, each discrete range of intensities having an upper limit and a lower limit different than the upper limit and the lower limit of the other discrete ranges, respectively,

as recited in Appellants' independent claim 1, and the similar selection limitations recited in independent claims 11, 16, and 21–23. App. Br. 19–30; Reply Br. 1–5.

ANALYSIS

With respect to independent claim 1, the Examiner finds Mainini teaches an animal training system, shown in Figures 1 and 3, including a transmitter device 300 that transmits an activation signal . . . indicating a selected one of a plurality of intensities within a discrete range of available intensities to be delivered to an animal; and a stimulus delivery device 102 . . . configured to receive the activation signal and to deliver the animal a stimulus having the selected one of the plurality of intensities. Final Act. 2–3 (citing Mainini ¶¶ 18, 28, 43; Figs. 1 and 3).

Mainini's Figures 1 and 3 are reproduced with additional markings below:

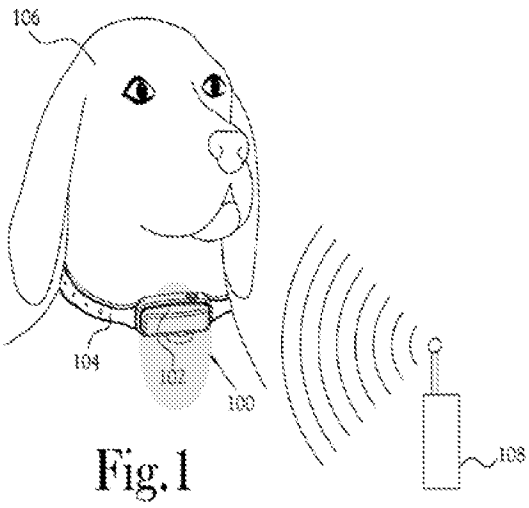

Fig.1

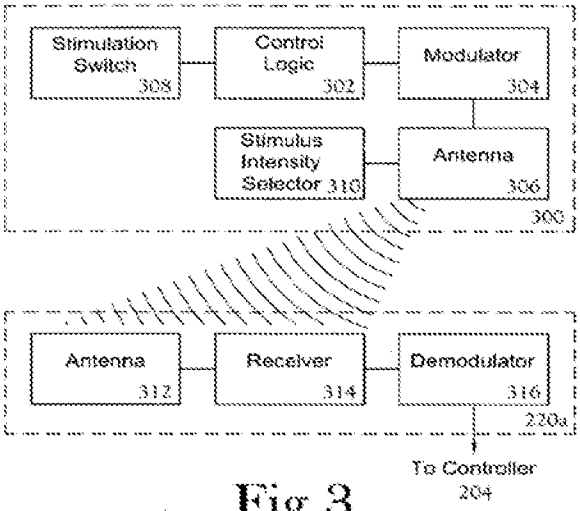

Fig.3

The Examiner acknowledges Mainini does not disclose:

> the discrete range of available intensities being selectable by a user from a plurality of discrete ranges of intensities such that only the plurality of intensities within a selected discrete range of intensities are available to be delivered to the animal, each discrete range of intensities having an upper limit and a lower limit different than the upper limit and the lower limit of the other discrete ranges, respectively,

as recited in claim 1. Final Act. 3. However, the Examiner relies on Stapelfeld for teaching and suggesting a plurality of different discrete selectable ranges of intensities to support the conclusion of obviousness. Final Act. 3–4 (citing Stapelfeld col. 13, ll. 46–51, col. 14, ll. 14–15); Ans. 2–4.

Appellants dispute the Examiner's factual findings regarding Stapelfeld and Mainini. Particularly, Appellants argue Stapelfeld does not teach or suggest "selecting a discrete range of intensities from a plurality of discrete ranges of intensities such that *only the plurality of intensities within a selected discrete range* of intensities *are available to be delivered* to the animal" (App. Br. 22); rather, Stapelfeld "merely describes that the user can set a particular level of stimulus (e.g., low, medium, high) . . . [h]owever, once the user sets the desired intensity level, *only the set intensity level* can be delivered to the animal" (App. Br. 23). Appellants also argue Stapelfeld does not teach ranges for which "*each discrete range* of intensities has an upper limit and a lower limit which are different than the upper limit and the lower limit of the other discrete ranges, respectively." App. Br. 24–25. Appellants further argue the combination of Mainini and Stapelfeld cannot teach or suggest the claimed selectable ranges because "neither of these references teach or suggest [sic] selecting a discrete range of intensities from a plurality of discrete ranges of intensities." Reply Br. 2, 5.

We do not find Appellants' arguments persuasive. Rather, we find the Examiner has provided a comprehensive response to Appellants' arguments supported by a preponderance of evidence. Ans. 2–4. As such, we adopt the Examiner's findings and explanations provided therein. *Id.* For additional

emphasis, we note Appellants' arguments are predicated on a narrow reading of obviousness under *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) and improper attacks on Mainini and Stapelfeld when the rejection is based on the combination. *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) ("one cannot show nonobviousness by attacking references individually when the rejection is based on a combination of references"). In addition, Appellants' arguments do not address the Examiner's findings regarding what Stapelfeld and Mainini would have suggested to one of ordinary skill in the art.

The proper test for obviousness is not whether the prior art references disclose all elements of the claimed invention; rather, what the combined teachings would have suggested to a person of ordinary skill in the art. *See In re Kotzab*, 217 F.3d 1365, 1370 (Fed. Cir. 2000). In such an analysis, precise teachings directed to the specific subject matter of the challenged claim need not be identified because the inferences and creative steps that a person of ordinary skill in the art would employ can be taken into account. *See KSR*, 550 U.S. at 418.

For example, although Mainini discloses "[o]ne of several levels [of a signal's intensity] can be selected by the user" operating a stimulus intensity selector (*see* Mainini ¶¶ 28, 43), Mainini also discloses:

> [O]ther devices may use a combination of automatic and/or manual intensity adjustment. . . . Consider an electronic animal confinement system used with multiple animals having a remote transmitter and stimulus units worn by each of the pets. The remote transmitter *may include selectors allowing the type and/or intensity of the stimulus to be set on a global level.* The stimulus units may contain *additional selectors that override or modify the global setting allowing the intensity to be adjusted to the needs of the particular animal.* Further, the stimulus units

> may contain *additional programming that adjusts the stimulus intensity* based on the actions of the animal. Certainly, *one skilled in the art will recognize that these exemplary devices do not cover all permutations of the control over the stimulus intensity known in the pet product industry and that various combinations and modifications in the stimulus intensity control remain within the scope and spirit of the present invention. . . .* [T]he stimulus intensity can be manually selected by adding a stimulus intensity selector as described with respect to FIG. **3**. Further embodiments allow the *manual selection of the base stimulus intensity with automatic adjustment of the stimulus intensity by controller in response to monitored conditions*.

Mainini ¶¶ 27, 31 (emphases added).

The use of multiple intensity ranges and sub-selection of any intensity range, as required by claim 1, are not beyond the abilities of the skilled artisan in view of Mainini's broad disclosure of various "permutations of the control over the stimulus intensity" including: (1) combinations and modifications in the [pet] stimulus intensity control; (2) intensities set on a global level; (3) intensities adjusted based on an animal's actions; (4) intensities overridden or modified to allow intensity adjustment to the needs of a particular animal; and (5) manual selection of a base stimulus intensity with additional automatic adjustment of the intensity. *See* Mainini ¶¶ 27, 31; Fig. 3. Thus, Mainini teaches or suggests a "discrete range of available intensities being selectable by a user from a plurality of discrete ranges of intensities," as recited in claim 1.

As an extension of Mainini, Stapelfeld teaches a similar animal training apparatus "*capable* at any given time of *delivering* any of a variety of stimulus types, *in any range of rates and at any level of intensity*" (Stapelfeld 9:50–52 (emphases added)) including:

> [T]hree rates (low, medium and high) and three intensities (low, medium and high) of stimulus. *Other combinations can be used and different types, rates and/or intensities of stimulus may be delivered. . . .*
>
> *Other configurations may be used for the coded transmitter signal.* The pulse rate can be other than the approximately 8 kHz rate described in the examples. Burst repetition rates (and, hence, the rate of stimulus) other than those illustrated can be used, and others may prove more effective for different breeds and types of animals; *rates as low as about 3 bursts per second and as high as about 300 bursts per second have been shown to be effective. A different range of selectable repetition rates can be provided.*
>
> *The intensity of each shock in the stimulus series can be different from that shown, although shocks at approximately 2000, 3500 or 5000 volts*, delivering approximately 5 mA, appear to be effective for canines; *currents in the range between about 1 mA and about 30 mA also appear effective.* The shock energy and shock pulse shape can differ, particularly for different types and breeds of animal. Burst lengths other than those illustrated can be used.

Stapelfeld 13:45–51, 14:1–19 (emphases added).

Based on Stapelfeld's versatile stimulus control device using ranges of intensity and rate, we find a skilled artisan would understand Stapelfeld's stimulus control "effectively gives the user access to select a different range of intensities, having corresponding lower and upper thresholds." Ans. 3 (citing Stapelfeld Fig. 2). Accordingly, we agree with the Examiner that the skilled artisan would recognize Stapelfeld's low, medium, and high intensity values provide a first selectable range of intensities to the user, while Stapelfeld's Figure 2 enables the user to "establish[] a much higher or much lower intensity to be a high or low intensity, respectively, effectively establishing a second range of available intensities." Ans. 3.

We also note Stapelfeld teaches *ranges of intensities*, as opposed to a single value for each level of intensities, as advocated by Appellants. App. Br. 23. For example, Stapelfeld describes "*any range of rates*" and "*any level of intensity*" including: (1) "currents in the range between about 1 mA and about 30 mA"; (2) "shocks at approximately 2000, 3500 or 5000 volts"; and (3) "rates as low as about 3 bursts per second and as high as about 300 bursts per second" together with "[a] different range of selectable repetition rates," where a rate is characterized by "bursts of pulses." *See* Stapelfeld 7:3–5, 8:6–16, 9:51–52, 14:1–4 and 7–14, Fig. 2. Thus, Stapelfeld's parameters of *rate* (determined by pulses) and *intensity* (determined by voltage and current) are commensurate with the broad description of the term "*intensity"* in Appellants' Specification—which describes "intensity" measured by *voltage, current, and pulse width*. *See* Spec. Fig. 3, ¶¶ 17–18.[3]

We further note Appellants' argument that Stapelfeld "is limited in providing a single intensity level at any given time, [so] Stapelfield [sic] cannot provide a series of increasing intensities <u>*in response*</u> to increasingly extreme behavior"—in contrast to Appellants' system—is not commensurate with the scope of claim 1. App. Br. 23, 26. Appellants' claim 1 does not

[3] Appellants' Specification provides "the *intensity* of the stimulus is defined by the amount of *electrical current* applied to the electrical components and the duration at which the current is applied," "selecting the *intensity* of the stimulus includes *selecting* the magnitude of the *electrical current* applied to the electrical components and *selecting the pulse width* of the applied current," and "various potential combinations of *current magnitude* and *current pulse width* result in various potential *voltages*. These *voltages* define the *intensity of the stimulus* delivered to the animal." *See* Spec. ¶¶ 17–18 (emphases added).

recite or require providing "a series of increasing intensities in response to increasingly extreme behavior."

Appellants' claim 1 also does not recite or require "delivering stimuli of varying intensities within each discrete range of intensities available to be delivered to the animal" as Appellants argue. App. Br. 23, 26. Instead, the claim recites "deliver to the animal a stimulus having *the selected one* of the plurality of intensities." App. Br. 31 (emphasis added). Thus, claim 1 requires only the selected intensity to be delivered to the animal, which is expressly disclosed by Stapelfeld and Mainini. Ans. 3; Final Act. 3. The additional limitation in claim 1 reciting "*only the plurality of intensities* within a selected discrete range of intensities *are available to be delivered to the animal*" (App. Br. 31 (emphasis added)) does not require "the plurality of intensities . . . available to be delivered to the animal" to actually be delivered to the animal. Ans. 3.

In summary, we find sufficient evidence in the teachings of Stapelfeld and Mainini to support the Examiner's findings that the combination of Stapelfeld and Mainini teaches and suggests the discrete range of available intensities is selectable by a user from a plurality of discrete ranges of intensities such that (1) only the plurality of intensities within a selected discrete range of intensities are available to be delivered to the animal, and (2) each discrete range of intensities has an upper limit and a lower limit different than the upper limit and the lower limit of the other discrete ranges, as recited in claim 1.

For the reasons set forth above, we sustain the Examiner's obviousness rejection of independent claim 1 and its dependent claims 2–10, which Appellants do not argue separately. App. Br. 27–28.

With respect to independent claims 11, 16, and 21–23, Appellants reiterate the same arguments presented against claim 1. App. Br. 21–27, 30. For the same reasons discussed, we also sustain the Examiner's obviousness rejections of claims 11, 16, 21, 22, and 23, and their respective dependent claims 12, 14, 15, 19, and 20 for which no substantive arguments are provided. App. Br. 28.

CONCLUSION

On the record before us, we conclude Appellants have not demonstrated the Examiner erred in rejecting claims 1–12, 14–16, and 19–23 under 35 U.S.C. § 103(a).

DECISION

As such, we AFFIRM the Examiner's final rejection of claims 1–12, 14–16, and 19–23.

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

<u>AFFIRMED</u>