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EXAMINER	
BURGDORF, STEPHEN R	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MICHELLE A. PERENY, SAMUEL R. HANLON, MICHAEL R. POWELL, ASHFORD ALLEN GALBREATH, RICHARD L. HARBAUGH, TERRY O'BANNON, GERALD PATRICK, and KARL HENN

Appeal 2019-002494
Application 14/560,487
Technology Center 2600

Before JEAN R. HOMERE, NABEEL U. KHAN, and AMBER L. HAGY, *Administrative Patent Judges*.

KHAN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1, 3, 5–7, 9–14, 17, 18, 20, and 22–27, which constitute all of the claims pending in this appeal. Appeal Br. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies Lear Corporation, as the real party in interest. Appeal Br. 1.

CLAIMED SUBJECT MATTER

Appellant describes the claimed subject matter as follows:

> A seat assembly is provided with a seat cushion, a seat back, and a head restraint. A plurality of sensors is operably connected to at least one of the seat cushion and the seat back to detect a seating position of an occupant. A media device is provided. A controller is in electrical communication with the plurality of sensors and the media device, and is configured to receive data from the plurality sensors, compare the data to determine if the occupant is seated evenly, and operate the media device to inform the occupant of an uneven posture seating position. A computer-program product is programmed for automatically displaying a pressure distribution upon a seat assembly. The displayed pressure distribution of the seat assembly is from measured pressure values from a plurality of sensors in a plurality of zones of the seat assembly.

Spec. Abstr.

Claim 1 is reproduced below:

> 1. A seat assembly comprising:
>
> a seat cushion;
>
> a seat back adapted to be pivotally mounted adjacent the seat cushion;
>
> a plurality of sensors operably connected to at least one of the seat cushion and the seat back to detect a seating position of an occupant;
>
> at least one actuator operably connected to at least one of the seat cushion and the seat back for adjustment of at least one of a plurality of settings of the seat assembly:
>
> a media device comprising an interactive user interface to receive input from the occupant; and
>
> a controller in electrical communication with the plurality of sensors and the media device, the controller programmed to:
>
> receive data from the plurality of sensors,

compare the data to determine if the occupant is seated evenly,

operate the media device to inform the occupant of an uneven posture seating position,

adjust the at least one actuator to balance an occupant posture seating position in response to a manual input from the interactive user interface,

receive input indicative of occupant anthropometry data,

select a predetermined data range associated with the input indicative of occupant anthropometry data,

adjust at least one of the plurality of settings of the seat assembly to a predetermined setting based on the selected predetermined data range,

receive data from the plurality of sensors after adjusting the at least one of the plurality of settings of the seat assembly to the predetermined setting,

operate the media device to inform the occupant of the adjusted seating position to the at least one of the plurality of settings to the predetermined setting,

compare the data to determine if the occupant is seated evenly after adjusting the at least one of the plurality of settings of the seat assembly to the predetermined setting,

operate the media device to inform the occupant of another uneven posture seating position,

readjust the at least one actuator to balance an occupant posture seating position in response to a manual input from the interactive user interface;

wherein the plurality of sensors comprises:

at least one left side sensor, and

at least one right side sensor; and

wherein the media device comprises a display.

REFERENCES

The Examiner relies upon the following prior art:

Name	Reference	Date
Caruso	US 10,413,084 B1	Sept. 17, 2019
Tan	US 2002/0167486 A1	Nov. 14, 2002
Gleckler	US 2009/0058661 A1	Mar. 5, 2009
Shalaby	US 2013/0313871 A1	Nov. 28, 2013
Baudu	US 2015/0084985 A1	Mar. 26, 2015

REJECTIONS

1. Claims 1, 3, 5, 6, 9–12, 23, and 27 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gleckler, Caruso, and Baudu. Final Act. 2–13.

2. Claims 7 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Gleckler, Caruso, Baudu, and Tan. Final Act. 13–14.

3. Claims 13, 14, 17, 18, 20, and 22 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Tan, Caruso, and Baudu. Final Act. 15–27.

4. Claims 24–26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Gleckler, Caruso, Baudu, and Shalaby. Final Act. 28–33.

OPINION

Claim 1 recites, in relevant part, a "controller programmed to: receive data from the plurality of sensors, compare the data to determine if the occupant is seated evenly, . . . adjust the at least one actuator to balance an occupant posture seating position in response to a manual input from the interactive user interface, . . . operate the media device to inform the occupant of another uneven posture seating position, [and] readjust the at least one actuator to balance an occupant posture seating position in

response to a manual input from the interactive user interface." The Examiner finds Gleckler teaches the collection and communication of sensor data that is used to determine if the occupant is seated evenly (Final Act. 4 (citing Gleckler ¶¶ 9, 36, 38, 39)) and relies on Caruso as teaching sensors for monitoring user position and posture, and actuators for manual or automatic adjustment and readjustment of the seat in response to occupant's shift in position (Final Act. 7 (citing Caruso 4:13–56, 6:9–22, 12:35–53)).

Appellant argues that while Caruso discloses automatically changing the position, shape, or firmness of a support surface in response to shifting weight, this disclosure does not teach the limitations requiring "adjust to balance, compare, and readjust to balance." Appeal Br. 9. Appellant argues that combining Caruso's teachings with Gleckler and Baudu does not cure the deficiencies of Caruso because "[i]n Gleckler, the occupant performs the adjustment" and because "Baudu readjusts based on occupant morphological data, not seating position." Appeal Br. 9–10.

We are unpersuaded by Appellant's arguments. Gleckler discloses an array of sensors connected with a seat that provides an output to a user of the user's posture in the seat, including "correct posture, hunch, slumping, leaning forward, leaning left or right, diagonal left or right, and slouching." Gleckler ¶¶ 5, 7, 9. Caruso discloses a "system of controlling various actuators associated with human support surfaces" such as chairs or seats. Caruso Abstr. In Caruso, "[t]he actuators are capable of altering contour and/or firmness, of a support surface, they may be vibrational or heating/cooling in nature, and they may also alter the overall relative position of a support surface to another support surface, and/or to the ground plane." Caruso Abstr., 8:42–45. Caruso further teaches that the position,

shape, firmness of the seat can change in response to the shifting weight of the user. Caruso 12:49–57. Finally, Caruso teaches that the user can adjust and readjust the seat (and various zones in the seat) to an appropriate comfort level, or that these comfort levels may be preset and stored so that the adjustment can happen automatically. Caruso 6:11–39.

We find the combination of teachings of Gleckler and Caruso teaches the disputed limitations. Gleckler's teaching of sensors that can determine whether the user is leaning forward or leaning left or right teaches "compar[ing] the data to determine if the occupant is seated evenly." Caruso's teaching of actuators that adjust the user's seat and seating position based on shifting weight and that allow the user to readjust these positions, combined with Gleckler's disclosure, teaches "adjust[ing] the at least one actuator to balance an occupant posture seating position" and "readjust[ing] the at least one actuator to balance an occupant posture seating position."

Accordingly, we sustain the Examiner's rejection of independent claim 1. We also sustain the Examiner's rejections of claims 3, 5–7, 9–14, 17, 18, 20, and 22–27, which depend from claim 1 and for which Appellant does not make additional arguments for separate patentability. *See* Appeal Br. 10.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 3, 5, 6, 9–12, 23, 27	103(a)	Gleckler, Caruso, Baudu	1, 3, 5, 6, 9–12, 23, 27	

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
7	103(a)	Gleckler, Caruso, Baudu, Tan	7	
13, 14, 17, 18, 20, 22	103(a)	Tan, Caruso, Baudu	13, 14, 17, 18, 20, 22	
24–26	103(a)	Gleckler, Caruso, Baudu, Shalaby	24–26	
Overall Outcome			1, 3, 5–7, 9–14, 17, 18, 20, 22–27	

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) (2017).

AFFIRMED