

Peloton Interactive, Inc.
v.
Johnson Health Tech Co., Ltd.

Patent Owner's Demonstrative Exhibits

September 5, 2024

Case Nos. IPR2023-01163, -01164, -01165

United States Patent and Trademark Office, Patent Trial and Appeal Board

“Exercise use data”

- Relevant Claims: All claims in '227, '375, and '340 Patents

Example Claims

1. An exercise apparatus comprising:
a base;
an operating unit movable relative to the base;
a motor coupled to the operating unit;
a sensor operable to detect engagement of a user with the operating unit;
a controller in communication with the operating unit and the sensor; and
a communication interface in communication with the controller, wherein the controller is configured to generate a non-validated exercise use data in response to movement of the operating unit relative to the base and the sensor does not detect engagement of the user with the operating unit, wherein the controller is further configured to generate a validated exercise use data in response to movement of the operating unit relative to the base and the sensor does detect engagement of the user with the operating unit, and wherein the controller transmits the validated exercise use data to the communication interface.

'227 Patent at 7:56-8:8 (claim 1).

1. An exercise apparatus comprising:
a motor;
an operating member driven by the motor;
a sensor operable to detect engagement of a user with the operating member;
a controller in communication with the operating member and the sensor, the controller configured to generate exercise use data when the operating member is driven by the motor; and
a communication interface in communication with the controller,
wherein the controller is configured determine whether the user is engaged with the operating member in response to movement of the operating member and the sensor detecting engagement of the user with the operating member,
wherein in response to the controller determining that the user is engaged with the operating member, the controller is configured to report the exercise use data to the communication interface,
wherein in response to the controller determining that the user is not engaged with the operating member, the controller is configured to stop reporting the exercise use data to the communication interface, and
wherein the communication interface is configured to communicate the reported exercise use data to a third party.

'375 Patent at 7:63-8:22 (claim 1).

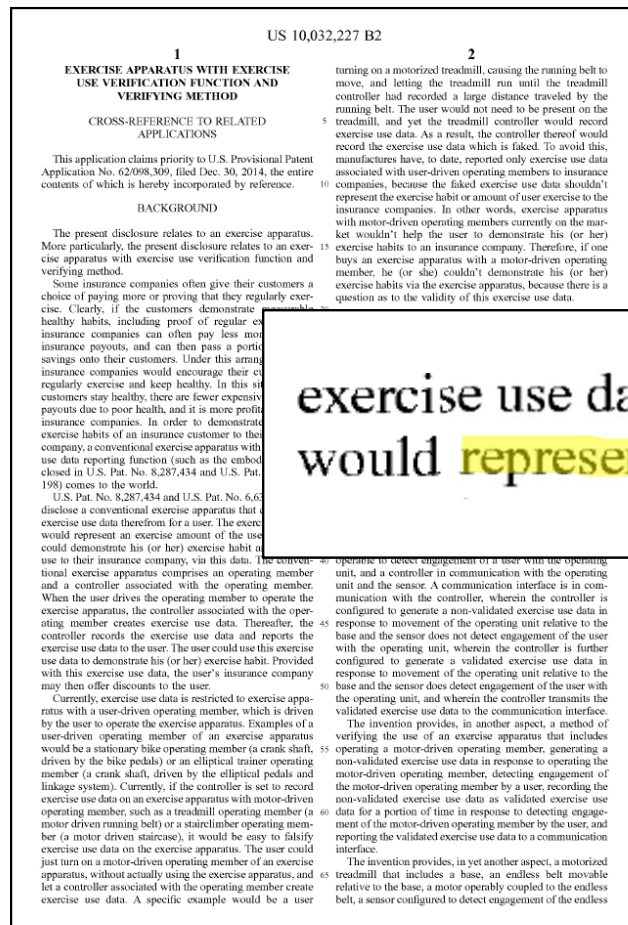
1. An exercise apparatus comprising:
a base;
an operating unit movable relative to the base;
a motor coupled to the operating unit;
a sensor operable to detect engagement of a user with the operating unit;
a controller in communication with the operating unit and the sensor, the controller configured to generate validated exercise use data in response to the sensor detecting engagement of the user with the operating unit and movement of the operating unit relative to the base.

'340 Patent at 8:30-41 (claim 1).

“Exercise use data”

Patent Owner’s Proposed Construction	Petitioner’s Proposed Construction
“data that would represent an <u>amount</u> of exercise of the user”	None

“Exercise use data”



'227 Patent at 1:36-37.

“Exercise use data”

1

US 10,032,227 B2

2

EXERCISE APPARATUS WITH EXERCISE
USE VERIFICATION FUNCTION AND
VERIFYING METHOD

CROSS-REFERENCE TO RELATED
APPLICATIONS

This application claims priority to U.S. Provisional Patent
Application No. 62/098,309, filed Dec. 30, 2014, the entire
contents of which is hereby incorporated by reference.

BACKGROUND

The present disclosure relates to an exercise apparatus.
More particularly, the present disclosure relates to an exercise
apparatus with exercise use verification function and
verifying method.

Some insurance companies often give their customers a
choice of paying more or proving that they regularly exercise.
Clearly, if the customers demonstrate measurable
healthy habits, including proof of regular exercise, the
insurance companies can often pay less money toward
insurance payouts, and can then pass a portion of these
savings onto their customers. Under this arrangement, the
insurance companies would encourage their customers to
regularly exercise and keep healthy. In this situation, the
customers stay healthy, there are fewer expensive insurance
payouts due to poor health, and it is more profitable for the
insurance companies. In order to demonstrate beneficial
exercise habits of an insurance customer to their insurance
company, a conventional exercise apparatus with an exercise
use data reporting function (such as the embodiments disclosed
in U.S. Pat. No. 8,287,434 and U.S. Pat. No. 6,638,198)
comes to the world.

U.S. Pat. No. 8,287,434 and U.S. Pat. No. 6,638,198 both
disclose a conventional exercise apparatus that can provide
exercise use data therefrom for a user. The exercise use data
would represent an exercise amount of the user. The user
could demonstrate his (or her) exercise habit and exercise
use to their insurance company, via this data. The conventional
exercise apparatus comprises an operating member and a controller
associated with the operating member. When the user drives the
operating member to operate the exercise apparatus, the controller
associated with the operating member creates exercise use data.
Thereafter, the controller records the exercise use data and reports
the exercise use data to the user. The user could use this exercise
use data to demonstrate his (or her) exercise habit. Provided
with this exercise use data, the user's insurance company
may then offer discounts to the user.

Currently, exercise use data is restricted to exercise apparatus
with a user-driven operating member, which is driven by the
user to operate the exercise apparatus. Examples of a user-driven
operating member of an exercise apparatus would be a stationary
bike operating member (a crank shaft, driven by the bike pedals)
or an elliptical trainer operating member (a crank shaft, driven
by the elliptical pedals and linkage system). Currently, if the
controller is set to record exercise use data on an exercise apparatus
with motor-driven operating member, such as a treadmill operating
member (a motor driven running belt) or a stairclimber operating
member (a motor driven staircase), it would be easy to falsify
exercise use data on the exercise apparatus. The user could
just turn on a motor-driven operating member of an exercise
apparatus, without actually using the exercise apparatus, and
let a controller associated with the operating member create
exercise use data. A specific example would be a user

turning on a motorized
move, and letting the
controller had record
running belt. The user
treadmill, and yet
exercise use data. A
record the exercise
manufactures have,
associated with user
companies, because
represent the exercise
insurance company
with motor-driven
ket wouldn't help
exercise habits to
buys an exercise ap
member, he (or she
exercise habits via t
question as to the v

The present inven
ate the disadvantage
Further benefits and
become apparent a
description with app
drawings.

The present inven
exercise use verifie
Generally speaking,
verification function
the verifying metho
exercise apparatus,
demonstrate his (or
company.

The invention pr
ratus that includes a
to the base, a motor
operable to detect e
unit, and a controlle
unit and the sensor.
communication with
the configured to gene
response to moveme
base and the sensor
with the operating
configured to gene
response to moveme
base and the sensor
the operating unit, a
validated exercise u
verifying the use o
operating a motor-d
non-validated exerc
motor-driven oper
the motor-driven op
non-validated exercise use data as validated exercise use
data for a portion of time in response to detecting engage
ment of the motor-driven operating member by the user, and
reporting the validated exercise use data to a communication
interface.

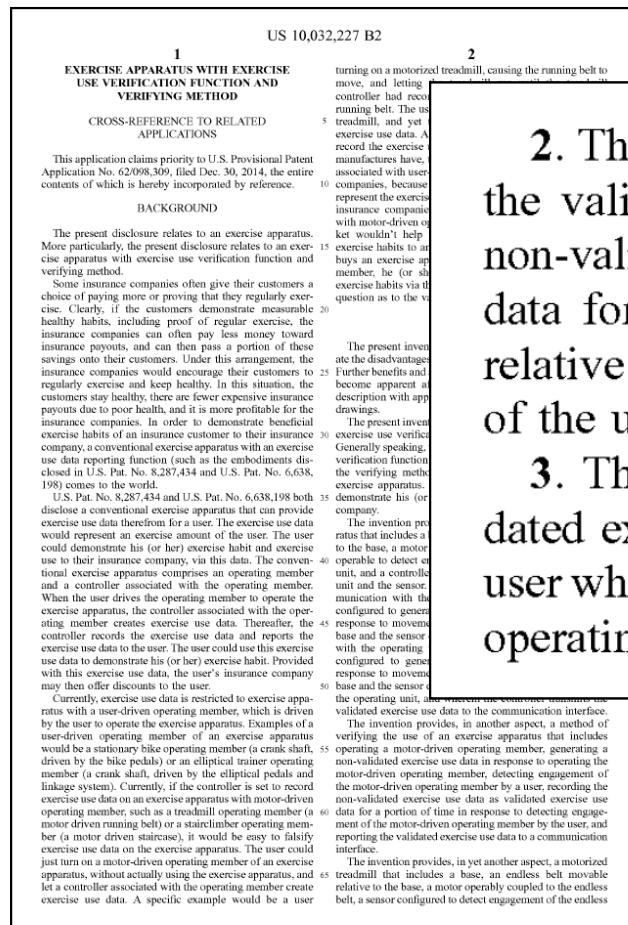
The invention provides, in yet another aspect, a motorized
treadmill that includes a base, an endless belt movable
relative to the base, a motor operably coupled to the endless
belt, a sensor configured to detect engagement of the endless

to the communication interface 50. The validated exercise use data can further include an amount of time (or portion of time or accrued amount of time) the user is detected as engaging the motor-driven operating member 20 (i.e., the amount of time the user spends exercising), which can be based on a timer or other timing device that measures the amount of time the user is detected as engaging the motor-driven operating member 20. In addition, or alternatively, the validated exercise use data can include a distance traveled (or an equivalent distance traveled) by the user while the user is detected as engaging the motor-driven operating member 20 (i.e., the distance traveled by the user while exercising).

'227 Patent at 5:59-6:4.

Demonstrative Exhibit – Not Evidence – 6

“Exercise use data”



2. The exercise apparatus of claim 1, wherein to generate the validated exercise use data the controller records the non-validated exercise use data as validated exercise use data for a portion of **time** that the operating unit moves relative to the base and the sensor does detect engagement of the user with the operating unit.

3. The exercise apparatus of claim 1, wherein the validated exercise use data includes a **distance** traveled by the user while the sensor detects engagement of the user with the operating unit.

'227 Patent at 8:9-18 (claims 2-3).

“Validated exercise use data”

Patent Owner’s Proposed Construction	Petitioner’s Proposed Construction
’227 Patent: “exercise use data that has been determined to have occurred by the controller in response to the sensor detecting a user engaging the moving operating unit (or endless belt)”	None
’340 Patent: “exercise use data that has been determined to have occurred by the controller in response to the sensor detecting a user engaging the moving operating unit (or member)”	

“Validated exercise use data”

- **Relevant Claims:** All claims in '227 Patent; claims 1-7 in '340 Patent

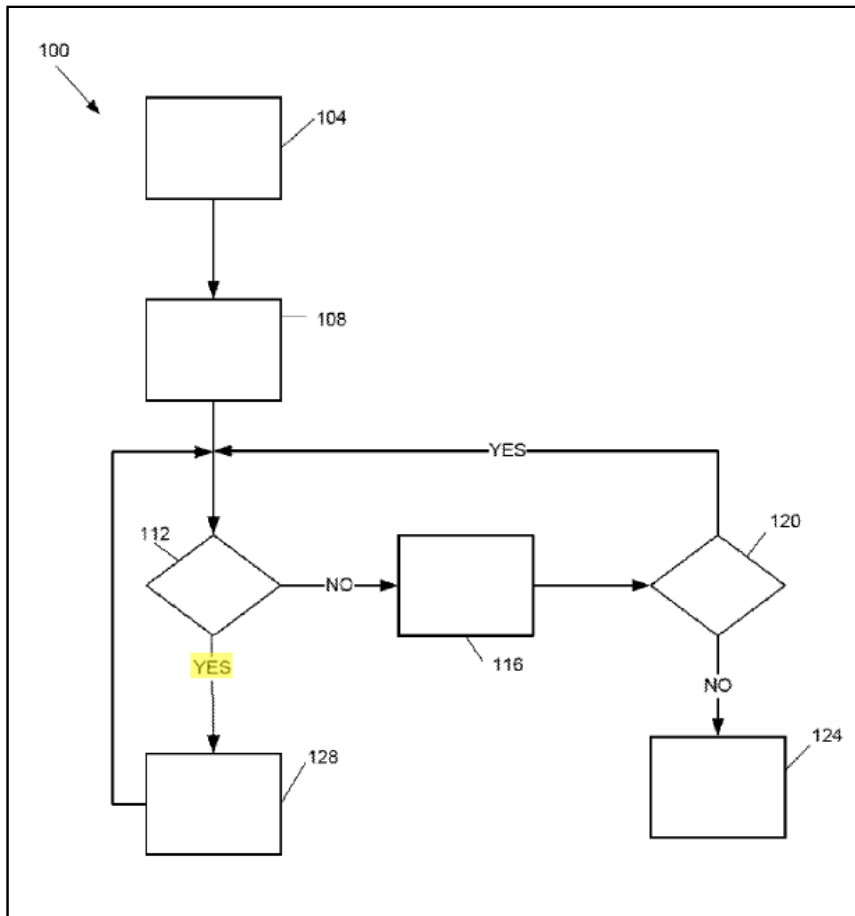
Example Claim

1. An exercise apparatus comprising:
a base;
an operating unit movable relative to the base;
a motor coupled to the operating unit;
a sensor operable to detect engagement of a user with the operating unit;
a controller in communication with the operating unit and the sensor; and
a communication interface in communication with the controller, wherein the controller is configured to generate a non-validated exercise use data in response to movement of the operating unit relative to the base and the sensor does not detect engagement of the user with the operating unit, wherein the controller is further configured to generate a validated exercise use data in response to movement of the operating unit relative to the base and the sensor does detect engagement of the user with the operating unit, and wherein the controller transmits the validated exercise use data to the communication interface.

the operating unit, wherein the controller is further configured to generate a validated exercise use data in response to movement of the operating unit relative to the base and the sensor does detect engagement of the user with the operating unit, and wherein the controller

'227 Patent at 7:56-8:8 (claim 1).

“Validated exercise use data”



'227 Patent at FIG. 6.

Proceeding to step 112, the controller 40 analyzes the data from the sensor to detect whether a user is actively engaging the motor-driven operating member 20. For example, the controller 40 can analyze fluctuations in the input current from the current sensor 30, as described above. In addition, or alternatively, the controller 40 can compare the received data from the sensor to a known (or default or standard) data parameter that is indicative of a user not engaging the motor-driven operating member 20. The known data parameter can be preprogrammed into the controller, or recognized during operational use (e.g., operation of the motor-driven operating member 20 without a user). If the analysis results in a “no,” there is no user detected that is actively engaging the motor-driven operating member 20, the process proceeds to step 116. If the analysis results in a “yes,” there is a user detected that is actively engaging the motor-driven operating member 20, the process proceeds to step 128, the details of which are later described.

'227 Patent at 7:12-29.

At step 128, the process generates validated exercise use data. More specifically, the controller can record (or otherwise identify) the non-validated exercise use data as validated exercise use data. The validated exercise use data can be locally stored or communicated to an interested third party, a demander, and/or the user as discussed above. The process returns to step 112 and repeats.

'227 Patent at 7:41-47.

Must be a determination by the controller

met by a change in input current to the motor **22**. The **controller 40** can be programmed to analyze the amplitude and frequency of any fluctuations **in order to determine whether or not a user is using the exercise apparatus**. Such

'227 Patent at 5:17-20.

sensor **30** to the controller **40**. **In order to determine whether or not a user is engaging** the motor-driven operating member, the **controller 40** analyzes fluctuations in the input current. Fluctuations occur when a user is using the exercise

'227 Patent at 5:10-12.

Thereafter, the current sensor **30** transmits the current signal proportional to the input current to the controller **40**, so that the **controller 40** can further **determine, via the current signal, whether or not the user is engaging (or continues to engage, or ceases to engage)** the motor-driven operating member **20**.

'227 Patent at 4:62-67.

“Non-validated exercise use data”

Patent Owner’s Proposed Construction	Petitioner’s Proposed Construction
’227 Patent: “exercise use data that has been determined to have occurred by the controller in response to the sensor not detecting a user engaging the moving operating unit (or endless belt)”	None
’340 Patent: “exercise use data that has been determined to have occurred by the controller in response to the sensor not detecting a user engaging the moving operating unit (or member)”	

“Non-validated exercise use data”

- **Relevant Claims:** claims 1-11, 15 in '227 Patent; claims 2-3 in '340 Patent

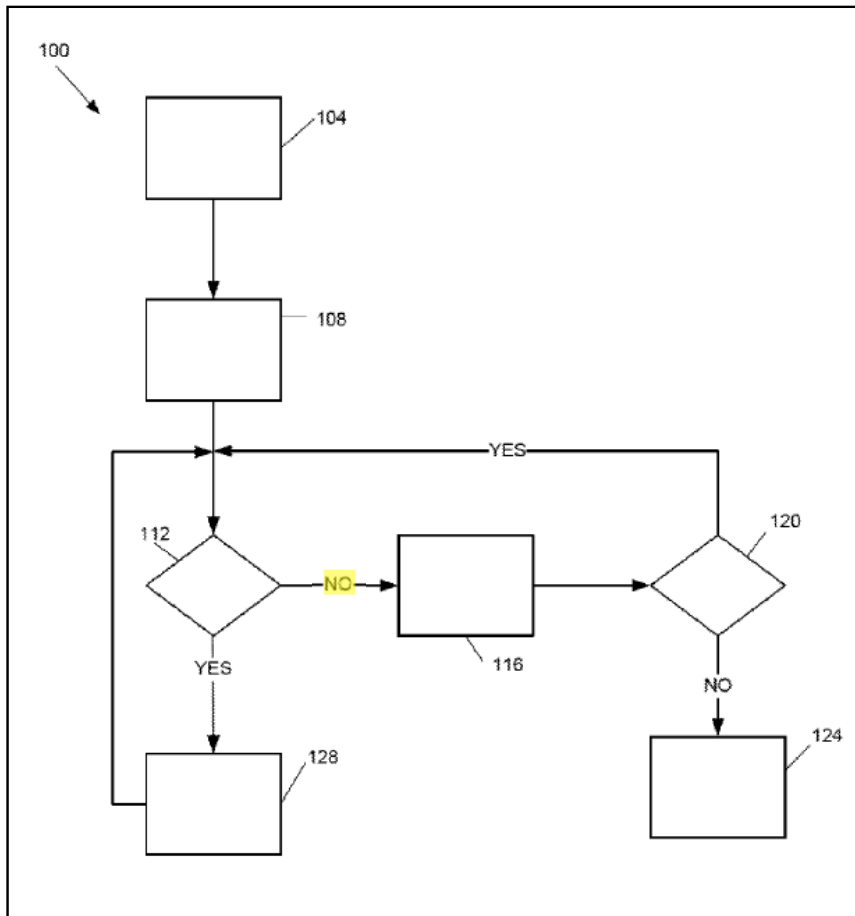
Example Claim

1. An exercise apparatus comprising:
a base;
an operating unit movable relative to the base;
a motor coupled to the operating unit;
a sensor operable to detect engagement of a user with the operating unit;
a controller in communication with the operating unit and the sensor; and
a communication interface in communication with the controller, wherein the controller is configured to generate a non-validated exercise use data in response to movement of the operating unit relative to the base and the sensor does not detect engagement of the user with the operating unit, wherein the controller is further configured to generate a validated exercise use data in response to movement of the operating unit relative to the base and the sensor does detect engagement of the user with the operating unit, and wherein the controller transmits the validated exercise use data to the communication interface.

controller, wherein the controller is configured to generate a **non-validated exercise use data** in response to movement of the operating unit relative to the base and the sensor does not detect engagement of the user with the operating unit, wherein the controller is further

'227 Patent at 7:56-8:8 (claim 1).

“Non-validated exercise use data”



'227 Patent at FIG. 6.

Proceeding to step **112**, the controller **40** analyzes the data from the sensor to **detect whether a user is actively engaging the motor-driven operating member 20**. For example, the controller **40** can analyze fluctuations in the input current from the current sensor **30**, as described above. In addition, or alternatively, the controller **40** can compare the received data from the sensor to a known (or default or standard) data parameter that is indicative of a user not engaging the motor-driven operating member **20**. The known data parameter can be preprogrammed into the controller, or recognized during operational use (e.g., operation of the motor-driven operating member **20** without a user). **If the analysis results in a “no,”** there is no user detected that is actively engaging the motor-driven operating member **20**, the process proceeds to step **116**. If the analysis results in a “yes,” there is a user detected that is actively engaging the motor-driven operating member **20**, the process proceeds to step **128**, the details of which are later described.

'227 Patent at 7:12-29.

At step **116**, the process generates **non-validated exercise use data**. This data can be locally stored, or communicated to an interested third party, a demander, and/or the user as discussed above. Next, at step **120**, the process detects whether the motor **22** (or motor-driven operating member **20**) continues to operate. If the process detects that “yes” the motor **22** continues to operate, the process returns to step **112** and repeats. If the process detects that “no” the motor **22** does not continue to operate, which is indicative of the exercise apparatus **10** no longer operating, the process terminates at step **124**.

'227 Patent at 7:30-40.

Petitioner's Grounds

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Morris and Ray

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

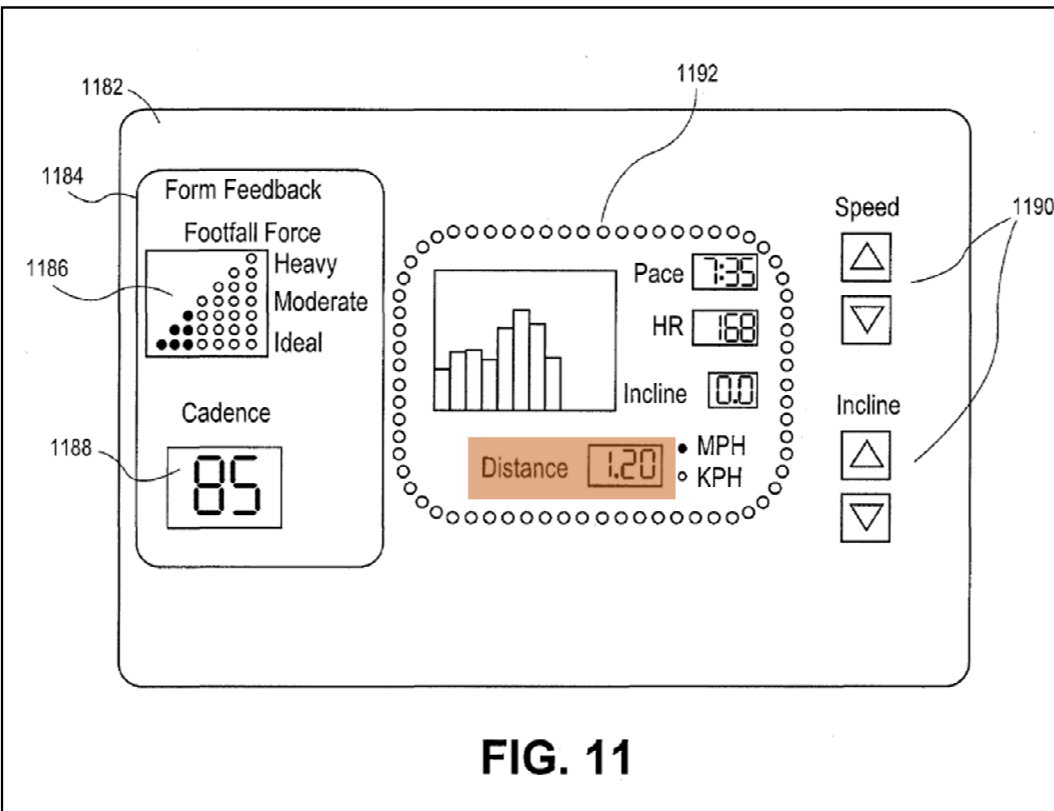
'375 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

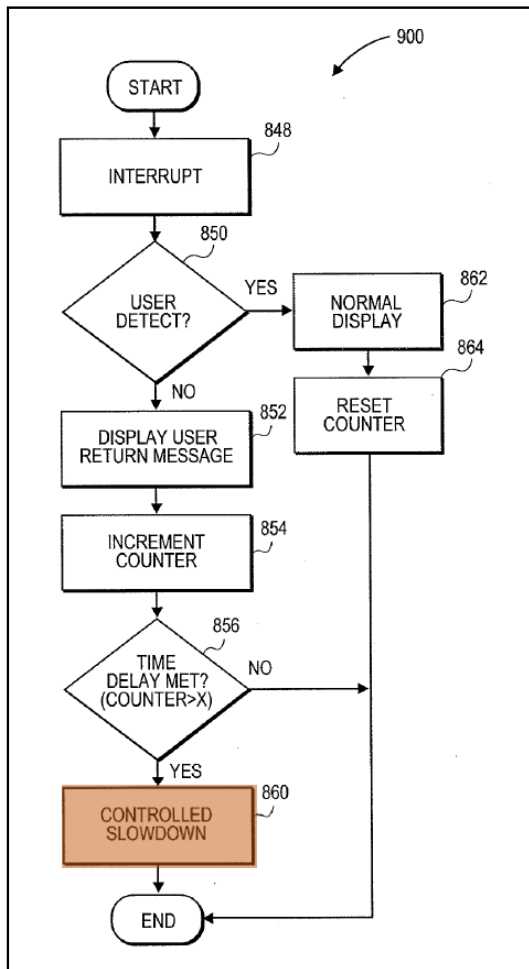
Morris



exercise use data therefrom for a user. The exercise use data would represent an exercise amount of the user. The user

'227 Patent at 1:36-37.

EX.1006 (Morris) at FIG. 11.



munication with the controller, wherein the controller is configured to generate a non-validated exercise use data in response to movement of the operating unit relative to the base and the sensor does not detect engagement of the user with the operating unit, wherein the controller is further

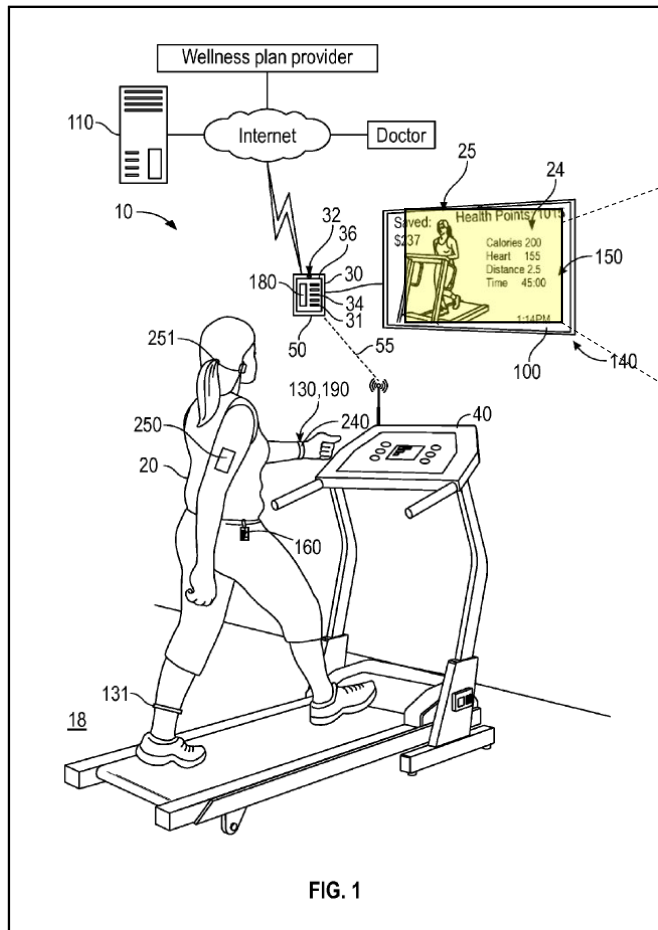
'227 Patent at 2:43-47.

If the user is not detected as engaging the motor-driven operating member 20, the controller 40 keeps creating non-validated exercise use data and monitoring the state of the input current in the wire to the motor 22. In contrast, if the user is detected as engaging the motor-driven operating member 20, the controller 40 records the non-validated exercise use data as validated exercise use data. Finally, the

'227 Patent at 5:51-57.

EX.1006 (Morris) at FIG. 9.

Ray



exercise use data therefrom for a user. The **exercise use data** would represent an exercise amount of the user. The user

'227 Patent at 1:36-37.

Morris and Ray

- **Morris-Ray does not teach or suggest:**

- '227 Patent:
 - Element 1[g]: non-validated exercise use data
 - Element 1[h]: validated exercise use data
- '375 Patent:
 - Element 1[g]: configured to report the exercise use data in response to the controller determining that the user is engaged with the operating member
 - Element 1[h]: configured to stop reporting the exercise use data in response to the controller determining that the user is not engaged with the operating member
- '340 Patent:
 - Element 1[e]: validated exercise use data
 - Claim 2: non-validated exercise use data
 - Claim 9: configured to stop reporting the exercise use data to the communication interface in response to the controller determining that the user is not engaged with the operating member
 - Element 13[e]: reporting exercise use data to the communication interface in response to the comparison step indicating the user is engaged with the operating member
 - Claim 15: generate the exercise use data in response to the determination that the user is engaged/is not engaged with the operating member

Morris, Ray, and Cox

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

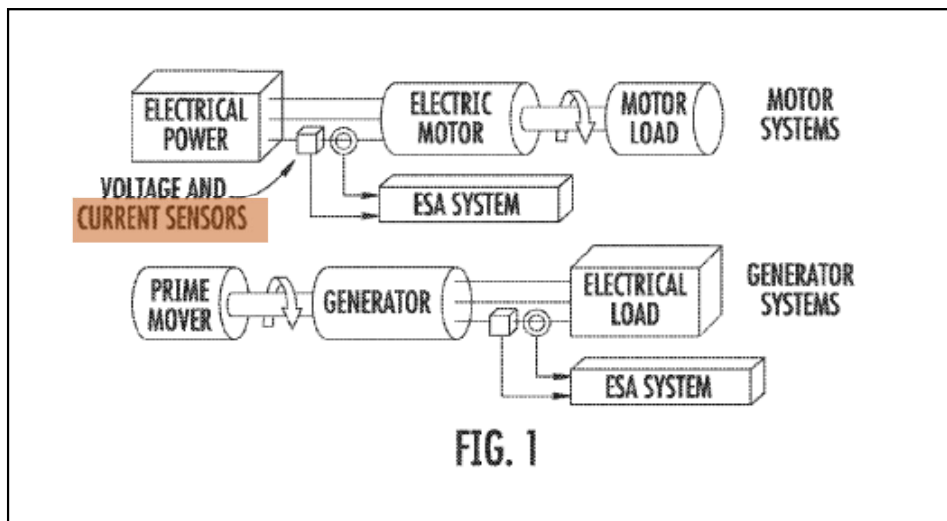
Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Morris, Ray, and Cox

- A POSITA would not be motivated to combine Cox with Morris and Ray



In the combination, Ray's camera and its analysis software would be combined with Morris' treadmill and augment the reluctance sensor, which provided detection signals indicative of the force exerted by the user on the treadmill as the user was walking or running on the treadmill. The data from the reluctance sensor would be used to accurately and realistically modify the user's virtual image based on the detected footfalls. A POSITA would have a reasonable expectation of success in making this combination because including multiple sensors in treadmills was a routine and well-known task.

EX.1005 (Cox) at FIG. 1.

Reply at 26.

Ray and AAPA

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Ray and AAPA

- **Ray-AAPA does not teach or suggest:**
 - '227 Patent:
 - Element 1[g]: non-validated exercise use data
 - Element 1[h]: validated exercise use data
 - Element 1[i]: the controller transmits the validated exercise use data to the communication interface
 - '375 Patent:
 - Element 1[g]: configured to report the exercise use data in response to the controller determining that the user is engaged with the operating member
 - Element 1[h]: configured to stop reporting the exercise use data in response to the controller determining that the user is not engaged with the operating member
 - Element 1[i]: configured to communicate the reported exercise use data to a third party
 - '340 Patent:
 - Element 1[e]: configured to generate a validated exercise use data in response to detecting engagement of the user
 - Claim 2: generating non-validated exercise use data in response to movement of the operating unit and the sensor not detecting a user
 - Claim 9: configured to stop reporting the exercise use data to the communication interface in response to the controller determining that the user is not engaged with the operating member
- **Petitioner's reliance on AAPA as a "basis" for its Grounds is not permissible**

Ray, AAPA, and Cox

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

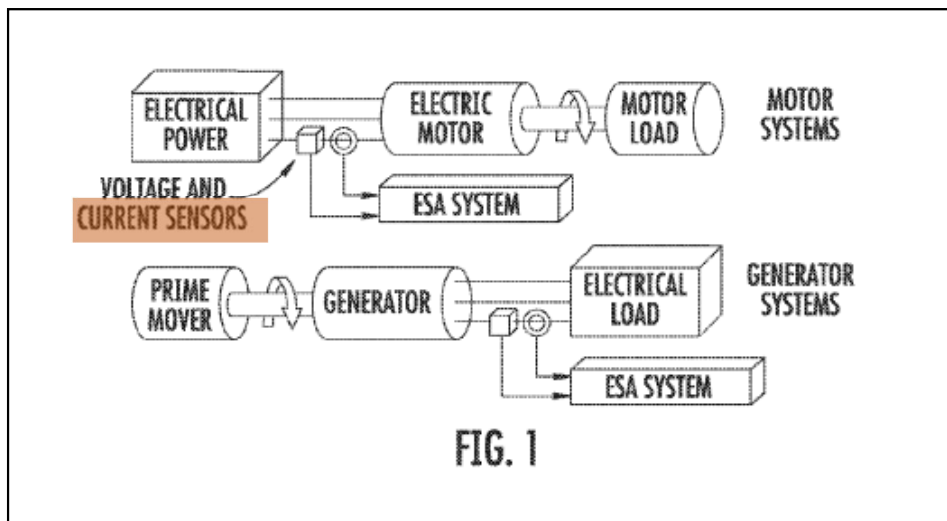
Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Ray, AAPA, and Cox

- A POSITA would not be motivated to combine Cox with Ray and AAPA



EX.1005 (Cox) at FIG. 1.

Ray's Sensor: Ray also disclosed an **optical sensor**—a camera—and associated data processor that was connected to the exercise machine (Ray, 10:36-50), or could be implemented as part of the treadmill. (Ray, 9:55-57.) Ray's camera "record[ed] [] still or video image[s] or produce[d] a live feed of the . . . exercising user 20 when movement [wa]s detected by the camera." (Ray, 13:20-24.)

Reply at 25.

(Ray, 6:53-55.) Ray's camera **determined a user's presence** when "movement . . . (such as the user's shoulders moving up and down)" was detected, thus making clear that Ray's camera *is operable to detect engagement of a user with the operating unit*. (Ray, 14:6-14, 15:55-65.) Finally, Ray's camera could sense small changes in the user's facial color based on blood flow to **obtain heart and respiratory rates** of the exercising user. (Ray, 16:47-50.)

Reply at 26.

- The Petition fails to identify each element in the prior art
- Petitioner's reliance on AAPA as a "basis" for its Grounds is not permissible

Ray, AAPA, and Daly

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

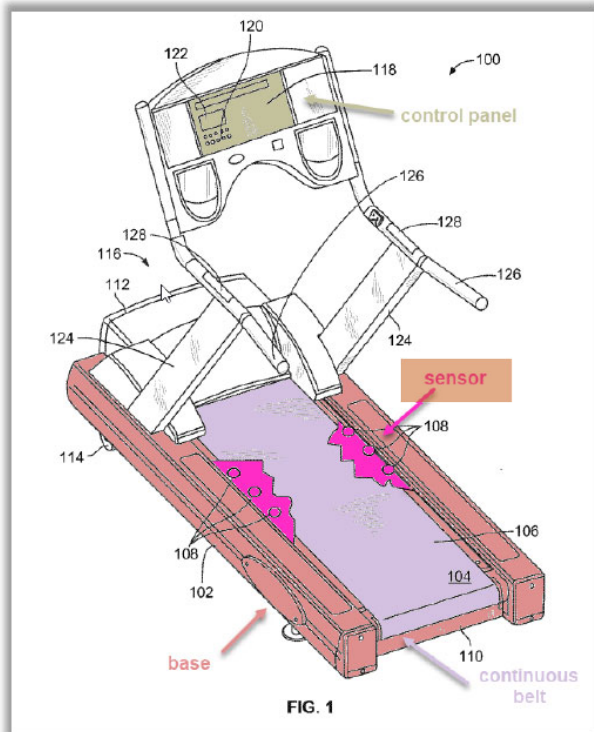
Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Ray, AAPA, and Daly

- A POSITA would not be motivated to combine Daly with Ray and AAPA



Pet. at 14 (annotated EX.1011 (Daly) FIG. 1).

Ray's Sensor: Ray also disclosed an **optical sensor**—a camera—and associated data processor that was connected to the exercise machine (Ray, 10:36-50), or could be implemented as part of the treadmill. (Ray, 9:55-57.) Ray's camera "record[ed] [] still or video image[s] or produce[d] a live feed of the . . . exercising user 20 when movement [wa]s detected by the camera." (Ray, 13:20-24.)

Reply at 25.

(Ray, 6:53-55.) Ray's camera **determined a user's presence** when "movement . . . (such as the user's shoulders moving up and down)" was detected, thus making clear that Ray's camera *is operable to detect engagement of a user with the operating unit*. (Ray, 14:6-14, 15:55-65.) Finally, Ray's camera could sense small changes in the user's facial color based on blood flow to **obtain heart and respiratory rates** of the exercising user. (Ray, 16:47-50.)

Reply at 26.

- The Petition fails to identify each element in the prior art
- Petitioner's reliance on AAPA as a "basis" for its Grounds is not permissible

Ray, AAPA, Daly, and Cox

'227 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

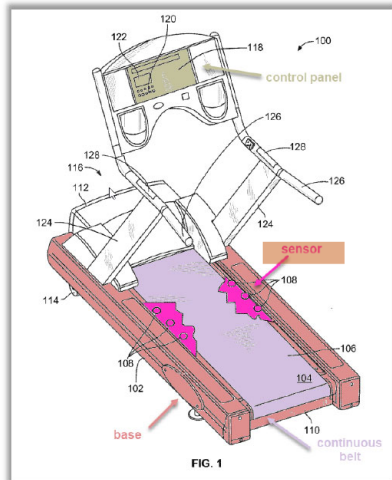
Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

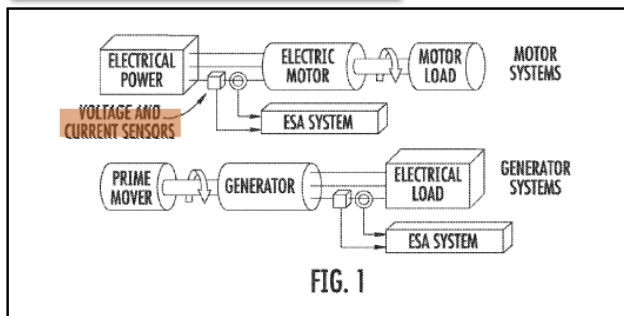
Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi

Ray, AAPA, Daly, and Cox

- A POSITA would not be motivated to combine Daly and Cox with Ray and AAPA



Pet. at 14 (annotated
EX.1011 (Daly) FIG. 1).



EX.1005 (Cox) at FIG. 1.

Ray's Sensor: Ray also disclosed an optical sensor—a camera—and associated data processor that was connected to the exercise machine (Ray, 10:36-50), or could be implemented as part of the treadmill. (Ray, 9:55-57.) Ray's camera “record[ed] [] still or video image[s] or produce[d] a live feed of the . . . exercising user 20 when movement [wa]s detected by the camera.” (Ray, 13:20-24.)

Reply at 25.

(Ray, 6:53-55.) Ray's camera determined a user's presence when “movement . . . (such as the user's shoulders moving up and down)” was detected, thus making clear that Ray's camera is operable to detect engagement of a user with the operating unit. (Ray, 14:6-14, 15:55-65.) Finally, Ray's camera could sense small changes in the user's facial color based on blood flow to obtain heart and respiratory rates of the exercising user. (Ray, 16:47-50.)

Reply at 26.

- The Petition fails to identify each element in the prior art
- Petitioner's reliance on AAPA as a “basis” for its Grounds is not permissible

'227 Patent:

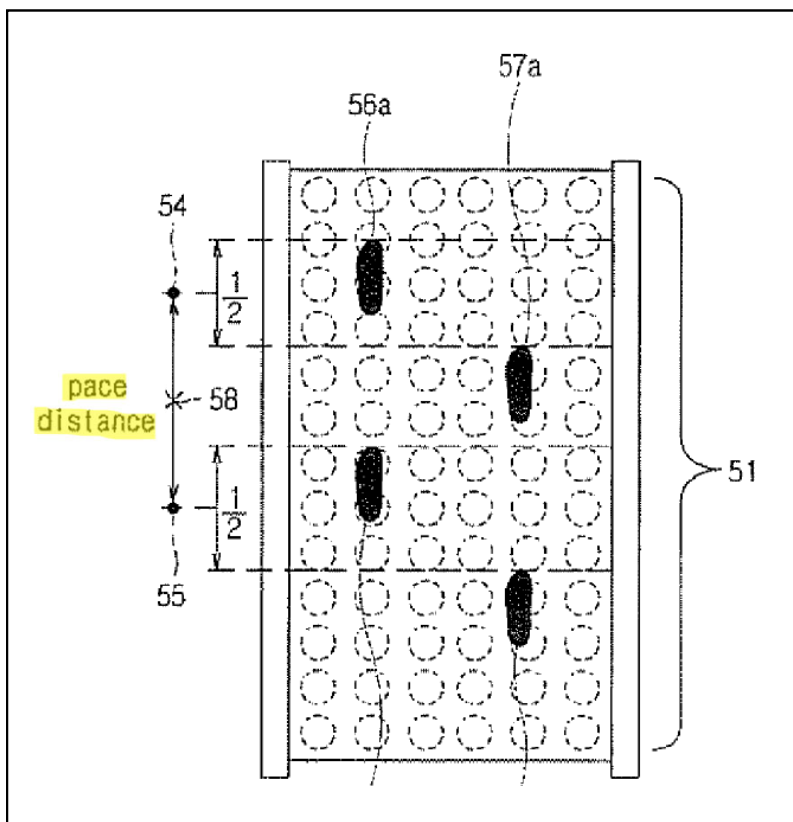
Ground	Claims Challenged	35 U.S.C. §	References
1	1-9, 12, 14-20	103	Morris, Ray
2	10-11, 13, 20	103	Morris, Ray, Cox
3	1-6, 14-20	103	Ray, AAPA
4	10-11, 20	103	Ray, AAPA, Cox
5	7-9, 12	103	Ray, AAPA, Daly
6	13	103	Ray, AAPA, Daly, Cox

'375 Patent:

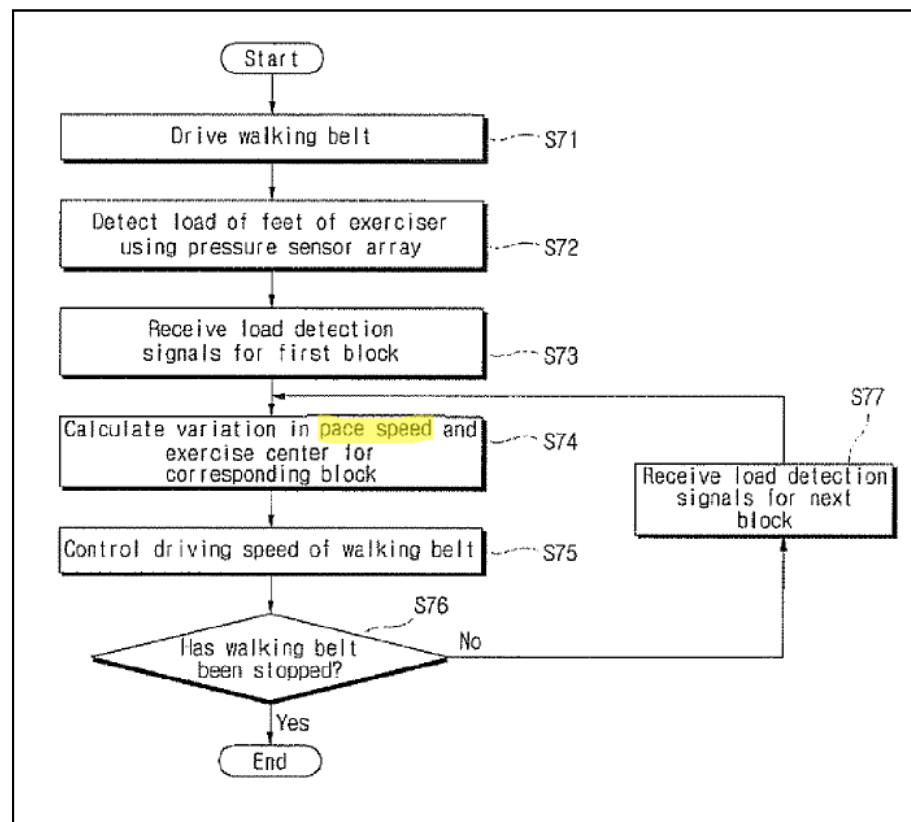
Ground	Claims Challenged	35 U.S.C. §	References
1	1-7, 10-18, 19-20	103	Morris, Ray
2	8-9, 18	103	Morris, Ray, Cox
3	1-3, 6-7, 10-16, 19-20	103	Ray, AAPA
4	8-9, 18	103	Ray, AAPA, Cox

'340 Patent:

Ground	Claims Challenged	35 U.S.C. §	References
1	1-20	103	Morris, Ray
2	1-17, 19-20	103	Ray, AAPA
3	1, 4-6, 8-9, 12	103	Yi



EX.1012 (Yi) at FIG. 5.



EX.1012 (Yi) at FIG. 7.

- **Yi does not teach or suggest:**

- '340 Patent:

- Element 1[e]: controller configured to generate a validated exercise use data in response to detecting engagement of the user
 - Claim 6: controller configured to record the validated exercise use data in response to the sensor detecting engagement of the user
 - Element 8[g]: controller configured to report exercise use data to the communication interface in response to the controller determining that the user is engaged
 - Claim 9: controller configured to stop reporting the exercise use data to the communication interface in response to the controller determining that the user is not engaged

Conclusion

- **Petitioner has failed to demonstrate the unpatentability of any of the Challenged Claims.**

CERTIFICATION OF SERVICE

The undersigned hereby certifies that Patent Owner's Demonstrative Exhibits for the above-captioned matter(s) was served in its entirety on August 29, 2024, upon the following parties via email at the below email addresses:

Lead Counsel:

Babak Tehrani
PERKINS COIE LLP
11452 El Camino Real, Ste. 300
San Diego, CA 92130-2080
Tehranchi-ptab@perkinscoie.com
PerkinsPelotonIPRs@perkinscoie.com

Back-up Counsel:

Michelle Kemp
PERKINS COIE LLP
33 East Main Street, Ste. 201
Madison, WI 53703-3095
Kemp-ptab@perkinscoie.com

R. Tyler Kendrick
PERKINS COIE LLP
1201 Third Avenue, Ste. 4900
Seattle, WA 98101-3099
Kendrick-ptab@perkinscoie.com

Ashlee Sherman
PERKINS COIE LLP
11452 El Camino Real, Ste. 300
San Diego, CA 92130-2080
Sherman-ptab@perkinscoie.com

Christopher G. Hanewicz
PERKINS COIE LLP
33 East Main Street, Suite 201
Madison, WI 53703-3095
CHanewicz@perkinscoie.com

Patent Owner's Demonstrative Exhibits
PTAB Case No. IPR2023-01163
PTAB Case No. IPR2023-01164
PTAB Case No. IPR2023-01165

Respectfully submitted,

MICHAEL BEST & FRIEDRICH LLP

/Kevin P. Moran/

Kevin P. Moran, Reg. No. 37,193
N19 W24133 Riverwood Drive, Suite 200
Waukesha, WI 53188
Telephone: (262) 956-6560
Fax: (262) 956-6565
kpmoran@michaelbest.com

Back up Counsel:

Shane A. Brunner (Pro Hac Vice)
John C. Scheller (Pro Hac Vice)
Michael R. Laing (Pro Hac Vice)

(Trial Nos. IPR2023-01163)
(Trial Nos. IPR2023-01164)
(Trial Nos. IPR2023-01165)

Attorney for Patent Owner
Johnson Health Tech Co., Ltd.