

Filed on behalf of: Fitbit, Inc.

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FITBIT, INC.,
Petitioner,

v.

ALIPHCOM, INC. D/B/A JAWBONE,
Patent Owner.

Case IPR2016-00607
U.S. Patent No. 8,529,811

PETITIONER'S DEMONSTRATIVES

Demonstratives of Petitioner Fitbit, Inc.

Inter Partes Review of
U.S. Patent No. 8,529,811

IPR2016-00607

Oral Hearing: May 11, 2017

Instituted Grounds

- ▼ The Board instituted review of claims 16-26 based on the following grounds:

| Anticipation/Obviousness References | Claims |
|--|---------------|
| Lo | 16-19, 23, 26 |
| Lo and Huang | 20-22 |
| Lo and Handbook of Thermoplastic Elastomers | 24 |
| Lo and Toyoda | 25 |

Institution Decision (Paper No. 14) at 25-26

The '811 patent: Claim 16

16. A method, comprising:

selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;

forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and

forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

'811 Patent (Ex. 1001) at 14:23-38

Disputed Issues

▮ Construction of “all or substantially all”

- ▮ Board requested additional briefing on the construction of “covers all or substantially all”
- ▮ Board’s preliminary construction/Petitioner: encompasses on top of
- ▮ Patent Owner: complete coverage, enclosing or encasing

Institution Decision (Paper No. 14) at 10; Patent Owner Response (Paper No. 21) at 5-16; Petitioner Reply (Paper No. 29) at 1-17

▮ Whether Lo anticipates claims 16-19, 23, and 26

Patent Owner Response (Paper No. 21) at 17-26;
Petitioner Reply (Paper No. 29) at 17-22

▮ Whether Petitioner has shown that claims 20-22, 24, and 25 are obvious

Patent Owner Response (Paper No. 21) at 26-31;
Petitioner Reply (Paper No. 29) at 22-25

“covers all or substantially all”

▮ Board’s preliminary construction / Petitioner:

At this stage of the proceeding, the record supports two reasonable interpretations of *covers all or substantially all*, as set forth above. Fitbit’s implied construction, which encompasses a layer that is only on top of the underlying layer, is broader than Jawbone’s, which would require complete encapsulation. The broadest reasonable construction in light of the specification is, therefore, Fitbit’s. For purposes of this Decision, we adopt Fitbit’s interpretation. We note, however, that this is a preliminary claim

Institution Decision (Paper No. 14) at 10

Petition (Paper No. 2) at 23-24

Petitioner Reply (Paper No. 29) at 1-6

The '811 Patent

As used herein, a securing coating may refer to any type of protective material, layer, cover, structure, liquid, gel, solid, or the like that is placed
65 substantially (i.e., partially or entirely) over an item in order to prevent damage from later stages of a manufacturing process (e.g., introduction into mold cavity 302 (FIG. 3) or mold

'811 Patent (Ex. 1001) at 8:62-67
Petition (Paper No. 2) at 23-24
Petitioner Reply (Paper No. 29) at 2-4

In some examples, the protective layer, inner molding, and outer molding may be selectively, partially, or completely applied to a given item. As described here, an outer molding may also be configured to completely enclose or encase an 30 underlying item in order to protect the inner molding, the protective layer, and any elements from damage.

'811 Patent (Ex. 1001) at 7:26-32
Petitioner Reply (Paper No. 29) at 4

The '811 Patent: Claim 16

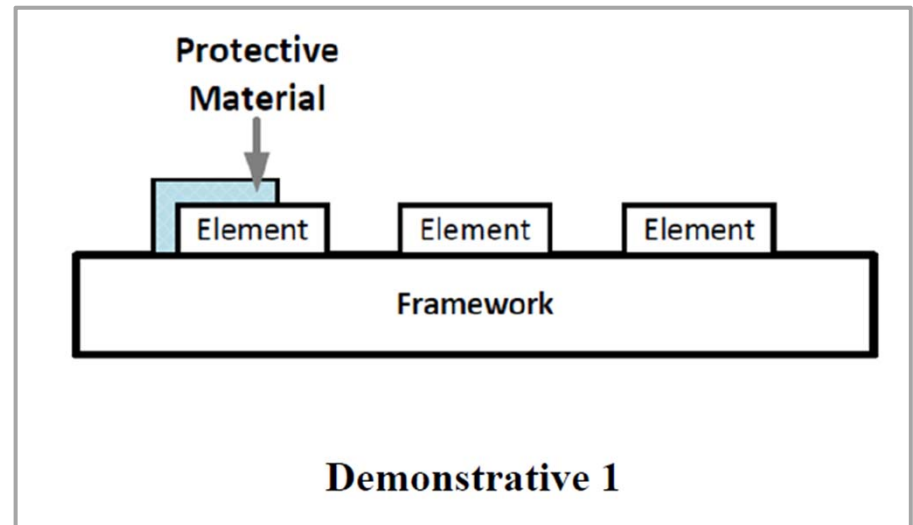
16. A method, comprising:

selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;

forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and

forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

'811 Patent (Ex. 1001) at 14:23-38

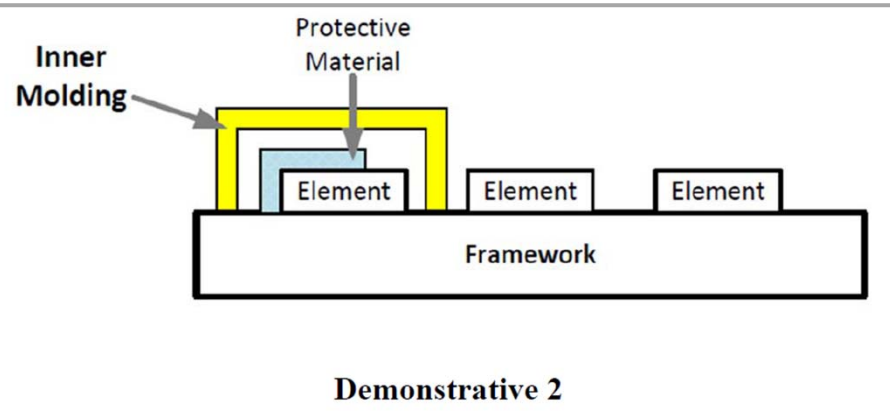


Petitioner Reply (Paper No. 29) at 9-12

The '811 Patent: Claim 16

16. A method, comprising:
selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;
forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and
forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

'811 Patent (Ex. 1001) at 14:23-38

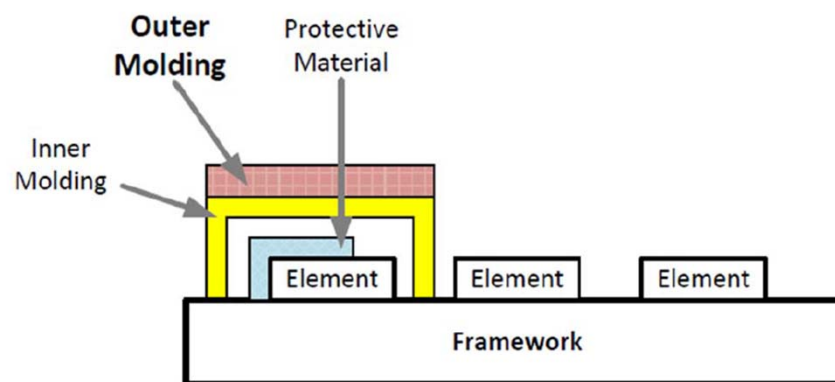


Petitioner Reply (Paper No. 29) at 9-12

The '811 Patent: Claim 16

16. A method, comprising:
selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;
forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and
forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

'811 Patent (Ex. 1001) at 14:23-38



Demonstrative 3

Petitioner Reply (Paper No. 29) at 9-12

“covers all or substantially all”

▼ Patent Owner

Jawbone asserts that a POSITA would more reasonably understand the “outer molding of the wearable device that covers all or substantially all of the one or more inner moldings,” as recited in claim 16, as enclosing or encasing the inner moldings. *See Id.* As discussed in further detail below, such a construction plainly

Patent Owner Response (Paper No. 21) at 8

▼ Patent Owner’s expert

25 entirety of the patent, one will understand that the
2 outer molding completely covers the inner molding, which
3 is consistent with what the patent teach. And that
4 means it's totally completely enclosing, encasing the
5 inner molding.

Ex. 1029 at 42:25-43:5
Petitioner Reply (Paper No. 29) at 5

“covers all or substantially all”

▼ Patent Owner’s expert

12 A Ordinary skill in the art when reviewing that
13 patent will understand the outer molding that covers the
14 wearable device means a completely enclosed inner
15 molding. That's what my understanding of how an

Ex. 1029 at 45:12-15
Petitioner Reply (Paper No. 29) at 5

25 A When I put myself as ordinary skill in the
2 art, read the patent claim, read a specification of the
3 claim, I will understand the outer molding covers the
4 inner molding completely as a complete enclosing or
5 encasing of the inner molding.

Ex. 1029 at 41:25-42:5
Petitioner Reply (Paper No. 29) at 5

See also Ex. 1029 at 80:3-5
Petitioner Reply (Paper No. 29) at 5

“covers all or substantially all”

▼ Patent Owner’s expert

14 Q So in the context of this patent, reading it
15 all together, "all or substantially all" to you to means
16 "all"?
17 A It means complete coverage.
18 Q All?
19 A All. Okay.

Ex. 1029 at 78:14-19
Petitioner Reply (Paper No. 29) at 9

The '811 patent: Claim 16

16. A method, comprising:
selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;
forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and
forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

'811 Patent (Ex. 1001) at 14-23-38

“substantially”

▼ Patent Owner’s expert

25 Q So your opinion as we just discussed in
2 connection with the definition of substantially in
3 column 8, line 65, is that that definition of
4 "substantially" applies to the first element of Claim 16
5 where you're applying a protective material
6 substantially over one or more elements, but it does not
7 apply to the term "substantially" in the molding -- the
8 inner molding or outer molding elements; is that
9 correct?
10 A That's correct.

Ex. 1029 at 88:25-89:10
Petitioner Reply (Paper No. 29) at 13-14

The '811 Patent: Dependent Claims

16. A method, comprising:

selectively applying at least one protective material substantially over one or more of a plurality of elements coupled with a framework for a wearable device configured to be worn by a user, the plurality of elements including at least a sensor;

forming one or more inner moldings substantially over a subset or all of the framework, the at least one protective material and the plurality of elements, after the selectively applying, at least one of the one or more inner moldings having a protective property; and

forming an outer molding of the wearable device that covers all or substantially all of the one or more inner moldings, the outer molding configured to be positioned in contact with the user.

applying, at least one of the one or more inner moldings having a protective property; and

18. The method of claim 16, wherein the protective property is waterproofing.

19. The method of claim 16, wherein the protective property is water-resistance.

20. The method of claim 16, wherein the protective property is being hydrophobic.

21. The method of claim 16, wherein the protective property is being oleophobic.

22. The method of claim 16, wherein the protective property is being anti-bacterial.

'811 Patent (Ex. 1001) at 14:23-38, 14:42-51
Petitioner Reply (Paper No. 29) at 14-15

The '811 Patent: Dependent Claims

▼ Patent Owner's expert

19 Q But you can't think of an example sitting here
20 right now of any commercial product where an inner
21 molding that's fully encased is antibacterial or
22 oleophobic?
23 A I can't come with an example this point.

Ex. 1029 at 64:19-23
Petitioner Reply (Paper No. 29) at 15

Patent Owner's Expert

10 Q So -- and because Figure 3 -- and I recall it.
11 Figure 3 is depicted as encompassing everything, you
12 really take the phrase "subset or all of" really as
13 meaning all of, because it's pictured in Figure 3 that
14 way?
15 A That's what Figure 3 teaches.
16 Q And that's what you think Claim 16 covers?
17 A That's right.

Ex. 1029 at 120:10-17
Petitioner Reply (Paper No. 29) at 16

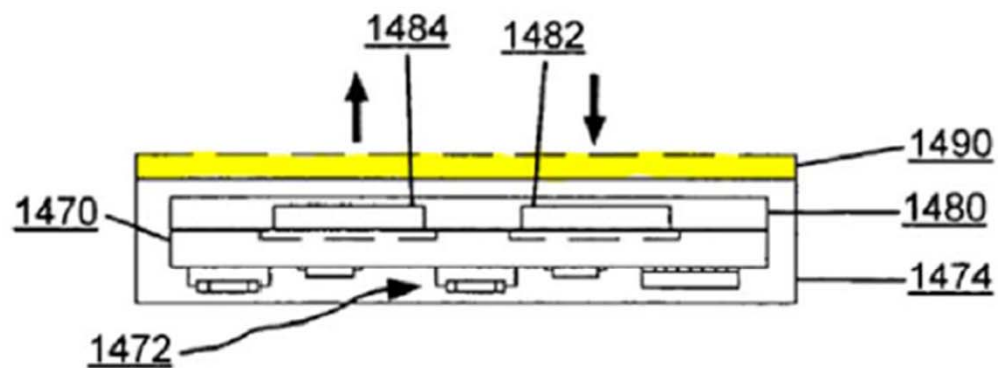


Fig. 14C

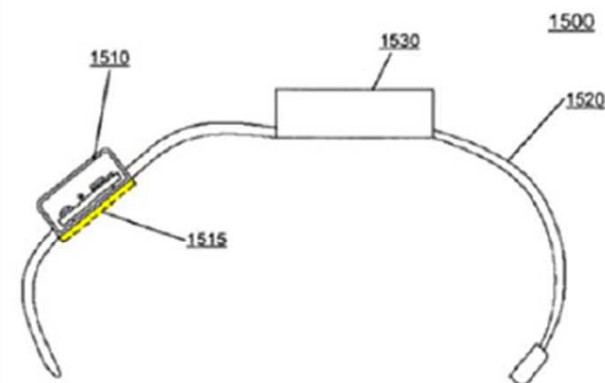


Fig. 15A

Ex. 1003 at ¶¶ 0114-0118, 0125, Figs. 14C and 15A
 Petition (Paper No. 2) at 20-24
 Ex. 1002 at ¶ 58
 Petitioner Reply (Paper No. 29) at 17-22

Patent Owner's Expert

22 Q So if a construction is adopted that covering
23 one side of an inner molding is sufficient to be on top
24 of the underlying layer, I understand you disagree with
25 that, but if that's adopted, it's not your opinion that
2 the transmission medium in Lo doesn't satisfy that
3 because it's on the wrong side; it's on the bottom not
4 the top, correct?

5 MR. GUO: Objection; form.

6 THE WITNESS: Yeah, it's not -- it's not about
7 on which side. It's about it's only on one side.

Ex. 1029 at 130:22-131:7
Petitioner Reply (Paper No. 29) at 19

Combination of Lo and Huang (Claims 20-22)

▼ Petitioner's expert, Dr. Cairns:

For example, *Huang* teaches the application of a hydrophobic coating that is “environmentally friendly and suitable for application to both a metal surface and a nonmetal surface of an electronic device.” Ex. 1007 at ¶ 0006. The coating may be applied to “a plastic material,

It is my opinion that one of ordinary skill in the art would have recognized the benefits of applying well understood hydrophobic materials, such as in *Huang*, to impart protective properties to the plastic housing in *Lo*. This would have been a natural design choice for an individual of ordinary skill in the art because it is nothing more than the combination of a known technique, according to its known function, to predictably improve a known device — here the wearable heart rate monitor of *Lo*.

Ex. 1002 at ¶¶ 64-66
Petition (Paper No. 2) at 28-33

Combination of Lo and Handbook of Thermoplastic Elastomers (Claim 24)

▼ Petitioner's expert, Dr. Cairns:

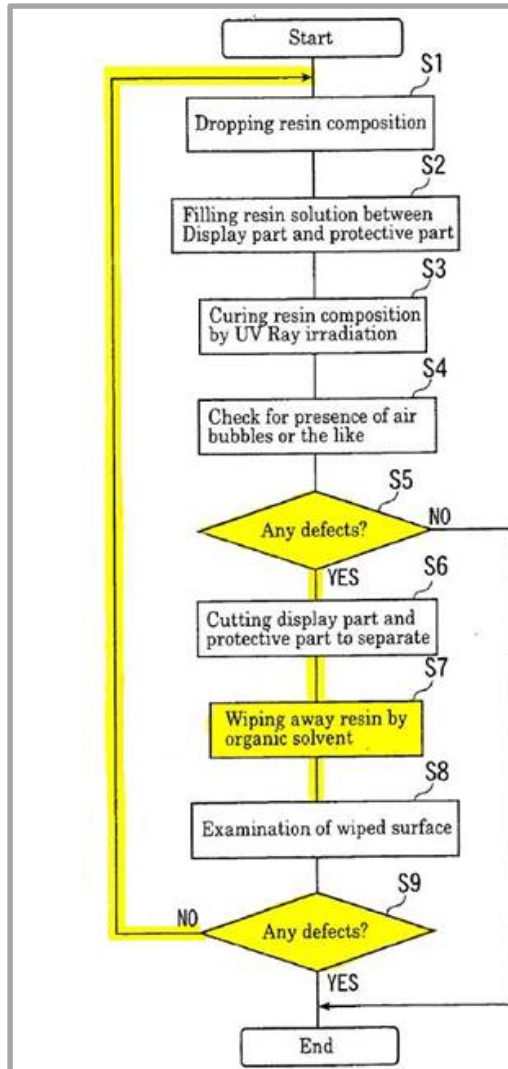
A number of medical-grade thermoplastic elastomers were known in the art before the priority date of the '811 patent. For example, an industry reference handbook, the *Handbook of Thermoplastic Elastomers*, identifies materials suitable for medical applications, teaching that certain of “[t]hese applications employ grades approved by U.S. Food and Drug Administration.” Ex. 1006 at 293 (§ 15.3.3.6.) *See also id.* at 303 (§ 15.7.2.8) at

It is my opinion that to one of ordinary skill in the art, using a medical grade thermoplastic elastomer would have been nothing more than the predictable application of a known solution to the problem of skin sensitization and irritation sometimes caused by the use of such materials in wearable devices, especially given the known use of medical grade thermoplastic elastomers in biomedical applications.

Ex. 1002 at ¶ 67
Petition (Paper No. 2) at 33-35

Combination of Lo and Toyoda (Claim 25)

▼ Petitioner's expert, Dr. Cairns:



For example, *Toyoda* teaches a method of forming resin layers on electronic devices that includes inspecting whether the resin layer is defective, and if defects are found, removing and re-applying the layer. Ex. 1008 at Abstract. *Toyoda*'s process is generally depicted in Figure 1 below:

...

It was well understood by persons having ordinary skill in the art long before the '811 patent's priority date that a defective molding leaves designers with two primary options: (1) discard the entire device, or (2) remove and re-apply the molding. It was also well understood that the choice between these options was generally dictated by the cost of the device's constituent components. Given the electronic components protected by the plastic housing in *Lo* (e.g., ultrasonic transducers, wireless transmitter, amplifiers, microcontroller), one of ordinary skill in the art would have found it beneficial to remove and re-apply a defective outer molding rather than to scrap the entire device. It is my opinion that to one of ordinary skill in the art, using the inspection steps of *Toyoda* would have been nothing more than the application of a known solution to predictably improve the reliability of *Lo*'s moldings.

CERTIFICATE OF SERVICE

I hereby certify that on May 8, 2017, a copy of the foregoing Petitioner's
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