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THE PROCTER & GAMBLE COMPANY and  
13 CANFIELD SCIENTIFIC INCORPORATED  
14

15 UNITED STATES DISTRICT COURT  
16 NORTHERN DISTRICT OF CALIFORNIA  
17 SAN JOSE DIVISION

18 THE PROCTER & GAMBLE COMPANY and  
19 CANFIELD SCIENTIFIC INCORPORATED,

20 Plaintiffs,

21 v.

22 QUANTIFICARE INC.

23 Defendants.  
24  
25  
26  
27  
28

Case No.: 5:17-CV-03061-LHK

**FIRST AMENDED COMPLAINT FOR  
PATENT INFRINGEMENT**

**DEMAND FOR JURY TRIAL**

Judge: Honorable Lucy H. Koh

1 Plaintiffs The Procter & Gamble Company (“P&G”) and Canfield Scientific,  
2 Incorporated (“CSI”) bring this action for patent infringement against Defendant Quantificare,  
3 Incorporated (“QUANTIFICARE”), and allege as follows:

#### 4 **THE PARTIES**

5 1. Plaintiff The Procter & Gamble Company (“P&G”) is a corporation organized  
6 and existing under the laws of the State of Ohio, having a regular and established place of  
7 business at 1 Procter & Gamble Plaza, Cincinnati, Ohio 45202. P&G is a multinational  
8 consumer goods company specializing in a number of industries, including personal care  
9 products. P&G is the owner of all right, title, and interest in and to U.S. Patent No. 6,571,003  
10 (“the ‘003 Patent”), and has rights to sue for infringement of the ‘003 Patent, and to collect for  
11 past, present, and future damages, including against Defendant.

12 2. Plaintiff Canfield Scientific, Inc. (“CSI”) is a corporation organized and existing  
13 under the laws of the State of New Jersey, having a regular and established place of business at 4  
14 Wood Hollow Road, Parsippany, New Jersey 07054. CSI is a global leader in imaging systems,  
15 services, and products for scientific research and healthcare applications, including the  
16 pharmaceutical, biotechnical, cosmetics, medical and skin care industries. CSI is the sole  
17 licensee of the ‘003 Patent and has the right to sue for infringement of the ‘003 Patent, to collect  
18 damages, to enforce rights under the ‘003 Patent against Defendant, and has standing with P&G  
19 to bring the present action.

20 3. Upon information and belief, Defendant Quantificare, Inc. (“QUANTIFICARE”) is a corporation organized and existing under the laws of the State of California, having a regular  
21 and established place of business at 1670 S. Amphlett Blvd., Suite 250, San Mateo, CA 94402.

#### 23 **JURISDICTION AND VENUE**

24 4. This action arises under the patent laws of the United States, Title 35 of the  
25 United States Code. This Court has subject matter jurisdiction over this case under 28 U.S.C. §§  
26 1331 and 1338(a).

1           5.       Personal jurisdiction exists generally over QUANTIFICARE because it resides in  
2 the State and it has sufficient minimum contacts with the forum as a result of business conducted  
3 within the State and, particularly, within this District. Personal jurisdiction also exists  
4 specifically over QUANTIFICARE because, on information and belief, certain of the infringing  
5 acts of QUANTIFICARE complained of herein occurred, at least in part, within the State and  
6 within this District.

7           6.       Venue is proper in this Court under 28 U.S.C. § 1400(b).

#### 8                               **THE PATENTS-IN-SUIT**

9           7.       On May 27, 2003, the '003 Patent was duly and legally issued, naming the  
10 inventors as Greg Hillebrand, Kukizo Miyamoto, Brian Barford, Joseph Miller, Mark Hayworth,  
11 Michael Hilton, Gary Heaton, and Michael Rubush. A copy of the '003 Patent is attached hereto  
12 as Exhibit A.

13           8.       The '003 Patent has been cited by at least 164 patents and patent applications filed  
14 by such well-known companies as Siemens Medical Solutions USA, Inc., Canon Kabushiki  
15 Kaisha, L'oreal S.A., Xerox Corporation, Honeywell International Inc., Sony Corporation,  
16 Samsung Electronics Co., Ltd., and HTC Corporation, among others, suggesting the significance  
17 of the inventions described and claimed in the '003 Patent to subsequent technological  
18 developments.

#### 19                           **Acquiring a Digital Image of a Portion of a Person**

20           9.       In the '003 Patent, spatial and spectral distributions of light stimulating a  
21 biological surface serve as inputs to a system that identifies abnormalities and other features.

22           10.      The '003 Patent discloses a computing device which acquires a first digital image  
23 of a portion of an individual. The computing device may acquire this image via a scanner or a  
24 digital camera. In one embodiment, the digital camera forms part of an imaging rig, including  
25 lights and positioning equipment, such as a chin or forehead rest for stabilizing a person's face  
26  
27

for imaging purposes. By positioning the lights and camera at predetermined distances and predetermined angles, the quality of the acquired image is maximized.

11. The apparatus disclosed includes output devices, such as one or more displays and may include a printer. A schematic diagram of the apparatus is depicted in Figure 1 of the '003 Patent:

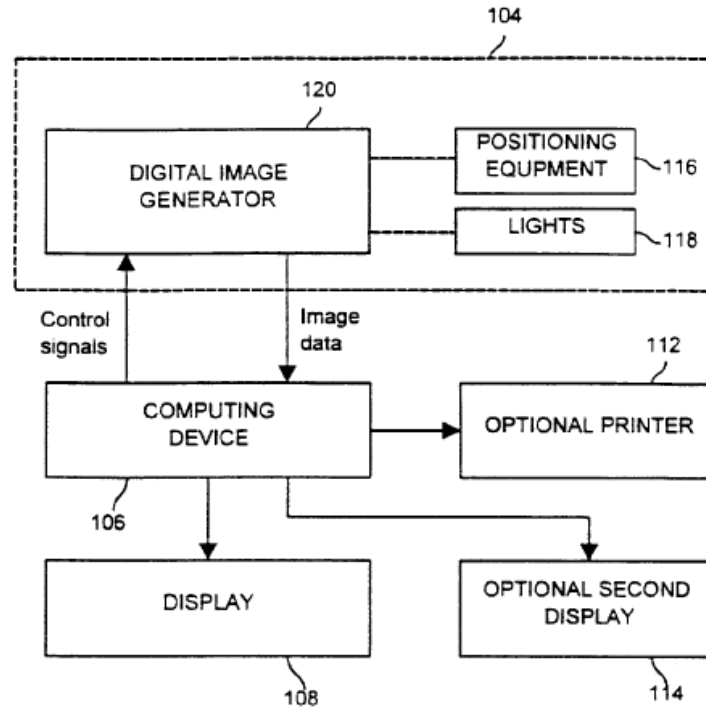


FIG. 1

### Electronically Determining a Sub-Image of the Digital

12. The computing device is an application specific device or programmed computer including a controller. The '003 Patent discloses a controller that includes data memory, such as a random-access memory or disk drive, memory storing the relevant programming, and a microprocessor, all interconnected using an address/data bus. An input/output circuit connects to various input devices, such as a keyboard and/or mouse used to enter data and commands into

the controller. A schematic of such a computing device having a controller is shown in Figure 2 of the '003 Patent:

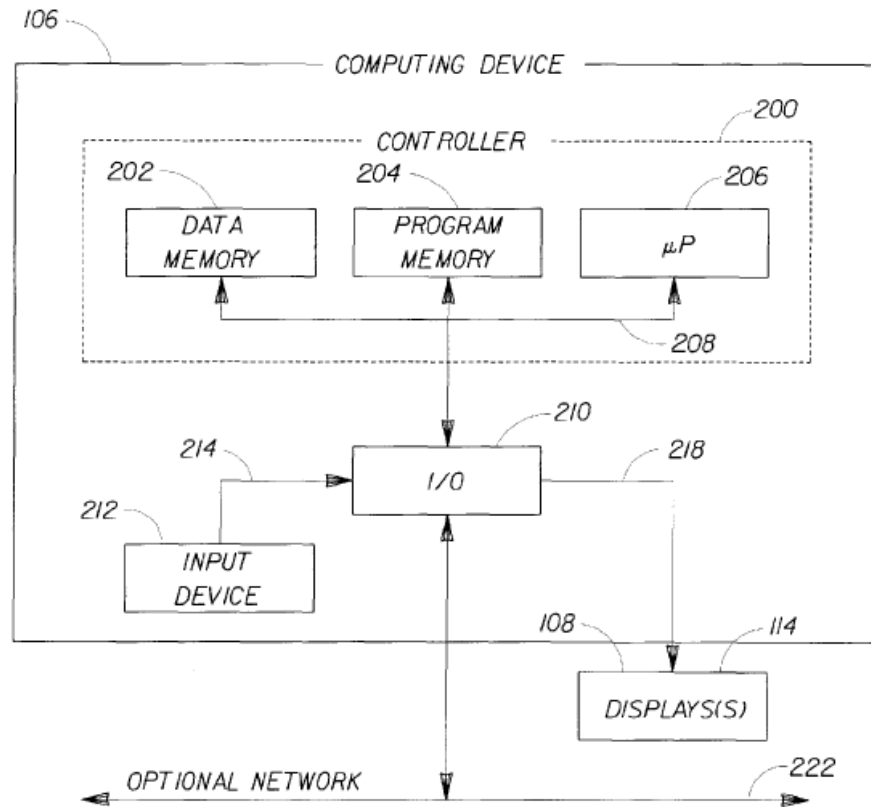
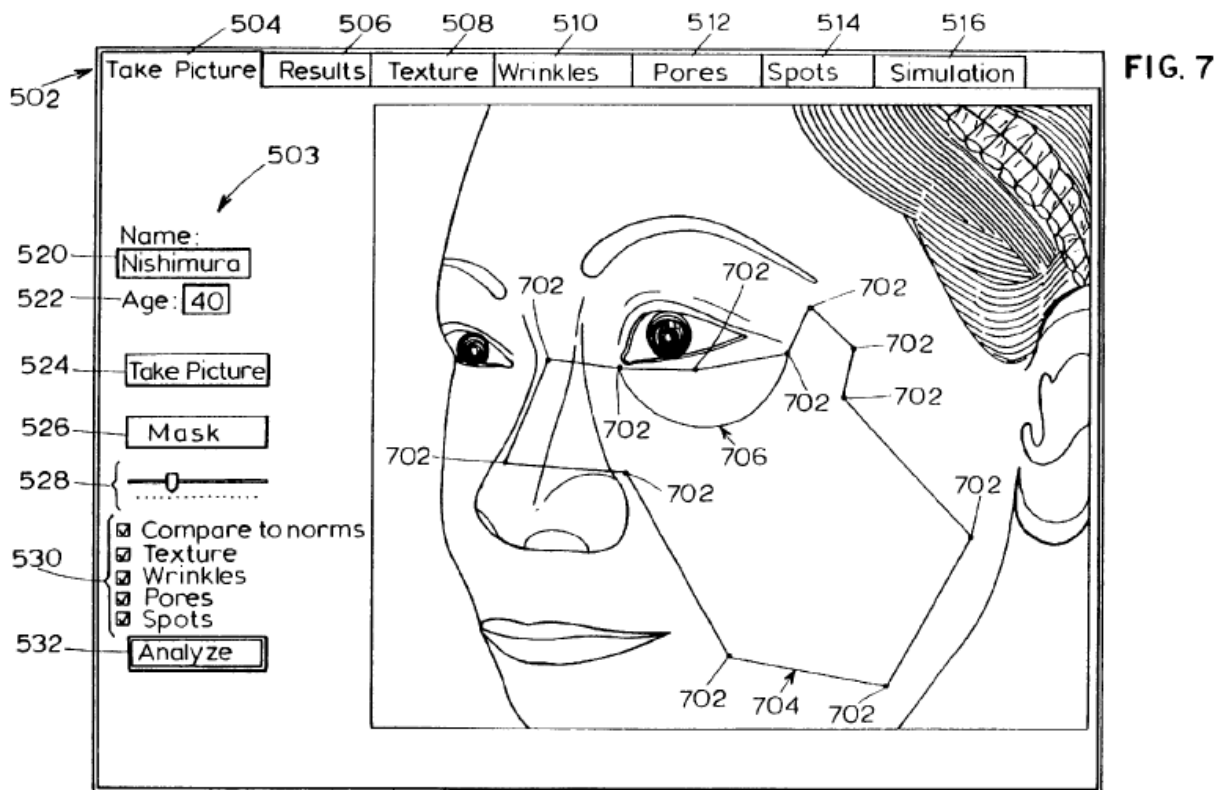


FIG. 2

13. The disclosed apparatus provides for a graphical user interface which permits an operator to acquire an image and select for a variety of skin conditions to be analyzed by the system. The interface permits input of details, such as the name of the subject and age. A “Mask” feature initiates the determination of a sub-area of the image, the size of which may be controlled by a slide (shown as 528 in the diagram below). A diagram of the user interface showing a sub-area of the image to be analyzed is shown below:



14. The system disclosed may determine the sub-image area automatically. The controller may search the image for patterns indicative of predetermined landmarks, such as the corner of an eye, nose or mouth.

15. The sub-image area may also be electronically determined semi-automatically through the graphical user interface. Using an input device, such as a mouse, the operator may identify the locations of various landmarks in the displayed image. If less than all landmarks are identified, the system may automatically interpolate the remaining landmarks from those input by the operator using a shape warping algorithm that, for instance, determines the spatial difference vector between the operator entered landmarks and a standard mask. The apparatus may calculate the location of the remaining landmarks using an interpolation of the spatial difference vectors and the  $x, y$  coordinates of the two closest operator entered landmarks.

16. Whether or not to determine the sub-image area automatically may itself be automated. The controller may, for example, analyze all or part of the image and, if the results

1 of that analysis exceed a threshold confidence level, the sub-image area determination would  
2 proceed automatically. Otherwise, the system would prompt certain manual inputs from the  
3 operator to assist the automated steps.

4 17. In determining that claims of the '003 Patent were patentable, the patent examiner  
5 correctly observed that:

6 [T]he prior art taken alone or in combination fails to suggest a method for locating  
7 a plurality of visual skin defects associated with a face of a person that includes  
8 identifying a first plurality of landmarks located in the first digital image of the  
9 face of the person, wherein the landmarks is [*sic.* are] selected from the group of a  
10 corner of the eye, a corner of a nose and a corner of the mouth in the first digital  
image and electronically determining a sub image of the first digital image of the  
face of the person based on the first plurality of landmarks in combinations with  
the other elements of the claims.

11 **Electronically Analyzing the Digital Image to Locate an Area Containing a Skin**  
12 **Defect**

13 18. The '003 Patent discloses and claims an apparatus that then electronically  
14 analyzes the sub-image area to locate defects that meet defined criteria. The defects may be skin  
15 elasticity features, such as wrinkles and fine lines. They may relate to skin smoothness, texture,  
16 follicular pores, or inflamed red spots such as acnes, or hyperpigmented spots such as senile  
17 lentigenes, nevi, or freckles.

18 19. In the event the identification of more than one defect is sought, an index variable  
19 may be used which is set initially to identify the particular skin defect the apparatus is to track.

20 20. A computer program executed by the controller may then locate the selected  
21 defects in the sub-image area. The manner in which such defects are identified is unique to the  
22 computer environment. The image is segmented using a threshold value(s) that can be derived  
23 from an analysis of the value of pixels in the image.

24 21. The '003 Patent includes description of an algorithm that first transforms an RGB  
25 color image to one or more scalar images of a color space variable, such as for example,  
26 intensity, hue, saturation, luminance, chrominance, red, green, and/or blue.

22. Local histogram estimates are then computed. A histogram reflects the range of potential pixel values and the number of pixels of each particular value found within the image. This may be done using a finite 2-dimensional non-overlapping window with the transformed image. Each local histogram is smoothed. In one example, a nonlinear iterative technique, such as a “53H twice,” is employed.

23. The resulting smoothed histogram is classified as either bimodal or non-bimodal. If no bimodal histograms were detected, the above process is repeated using a data window having a different size.

24. For bimodal histograms, a local threshold value between the two peaks is computed. A global threshold value may be computed based upon the local threshold values for regions having bimodal histograms. Alternatively, local threshold values can be interpolated for those regions without bimodal histograms. The feature of interest is then segmented from normal skin by detecting pixels whose intensity is higher or lower than the threshold value.

25. The computing device may then identify morphological “blobs” by further segmenting the image into distinct regions of contiguous pixels that are either above or below the threshold value. The number of blobs can be counted. The size of each blob can also be calculated as a function of the number of pixels that the blob contains. The computer may discard blobs falling below a particular threshold in size, or alternatively may retain only  $n$  number of the largest blobs. The location and extent of such blobs is determined. The edges of such blobs may be located using horizontal and vertical gradients (*i.e.* transitions), which involved a comparison of the values of adjacent pixels in each of those dimensions to identify those indicating an edge transition from a defect to surrounding skin.

#### **Determining a Numerical Severity Associated with the Area Containing the Skin Defect**

26. The ‘003 Patent disclosed an apparatus, and a method performed by that apparatus, in which a numeric severity of the skin defect is determined or the overall condition of the skin is characterized. The disclosed apparatus analyzes the digital information associated

1 with pixels within the digital image. The apparatus may analyze the color content of individual  
2 pixels that the computer and/or controller has identified as being within the borders of the  
3 identified skin defect, relative to pixels in areas surrounding that defect, assigning a numeric  
4 severity based upon the relative difference along a particular color space variable.

5 27. The apparatus disclosed may also determine the number of numeric geometric  
6 coordinates, for example pixels, that cover the defect area. The numeric severity determined  
7 reflects the number of such coordinates.

8 28. The apparatus can aggregate the numeric severities determined for individual  
9 instances of particular skin defect types. Where aggregated, the resulting numeric severity may  
10 be adjusted using a coefficient reflecting the perceptibility of the particular type of defect. The  
11 '003 Patent discloses an apparatus that further aggregates severities determined for particular  
12 types of skin defects to determine an overall numeric skin severity.

13 29. Skin conditions relating to roughness or smoothness can also be numerically  
14 determined using surface area density measurements. Treating the 2-dimensional digital image  
15 as a topographical map, a surface area is first calculated by summing the estimated area of the  
16 skin represented by each pixel. Pixels that are brighter than neighboring pixels are deemed to  
17 reflect raised areas of the skin. The value of that pixel is used as a factor in multiplying the  
18 length and height of the pixel to produce a product representing the three-dimensional area of the  
19 skin occupied by the pixel in the image. A comparison of these calculations against an area  
20 calculation based solely upon the width and height of the pixels in the area under examination  
21 serves to identify areas that vary in smoothness, and the degree of that variation. The closer the  
22 calculations using the pixel value approximate those that do not, the smoother the skin.

23 30. Alternatively, the '003 Patent describes the invention's use of fractal dimensions  
24 to characterize surface changes by calculating the level of detail lost at differing resolutions.  
25 Pixel values within a particular sized window in a finer resolution are represented as an  
26 aggregated value in digital image data representing a coarser resolution. The difference in the  
27

1 areas calculated using logarithms between these two resolutions provides information concerning  
2 the degree of smoothness or roughness of the skin reflected in the digital image.

3 31. The '003 Patent also discloses the use of pixel intensity variance to estimate skin  
4 texture. As the '003 Patent discloses, lighting variances are determined in the image field. Local  
5 lighting variances are calculated for the image field and the pixel intensities of individual pixels  
6 within that region are adjusted to reflect the variance in illumination. The texture of the skin  
7 may then be estimated based upon the degree of variance in the adjusted intensity of pixels in a  
8 particular region. The greater the degree of intensity variance, the greater the unevenness of the  
9 skin represented in the region of the digital image.

10 **Electronically Creating Second and Third Digital Images Visually Identifying the**  
11 **Areas Containing the Skin Defects and Simulating the Improvement/Worsening of**  
12 **Those Conditions**

13 32. The apparatus disclosed and claimed in the '003 Patent, and methods it employs,  
14 further electronically creates a second digital image which visually displays the location of the  
15 identified defects. This may be done by altering the color of individual pixels identified as being  
16 associated with the defect to a color visually distinct from the color of the pixels representing the  
17 surrounding skin.

18 33. The '003 Patent further disclosed the addition of stored tabular data, specific to  
19 particular defects and magnitudes thereof, that cross-reference the impact of cosmetic products  
20 and/or skin treatments used to eliminate, prevent or conceal such defects. The apparatus is  
21 thereby capable of simulating the improvement of identified skin defects based upon various  
22 possible treatments in advance of their actual application.

23 34. The disclosed apparatus also can generate and display a third digital image that  
24 simulates either an improvement or worsening in the skin conditions identified. In one  
25 embodiment, the operator uses an input device and the graphical user interface to input a  
26 magnitude of the change sought. Improvements may be simulated, for example, by altering pixel  
27 values in the defect areas to more closely match those in surrounding areas.

1           35.     The apparatus permits the alternating display of the second and/or third generated  
2 images with the original first digital image. In this fashion, the subject may more readily  
3 appreciate the information concerning the location of the skin defects and the implications of the  
4 simulated skin improvement and/or the worsening of skin conditions.

5           **The Innovative Invention Disclosed and Claimed in ‘003 Patent Provides**  
6           **Capabilities Previously Unavailable**

7           36.     Skin evaluations by counselors and clinicians suffer from the subjectivity of the  
8 evaluator. Such assessments can vary from visit to visit, even where the same counselor or  
9 clinician is performing the evaluation of the same subject. In addition, the human eye cannot  
10 perceive light outside the visible spectrum, and has difficulty distinguishing low-contrast  
11 structures or defects below a certain size.

12           37.     Conventional devices used in skin evaluations prior to the invention claimed in  
13 the ‘003 Patent did not determine a numeric severity associated with the area containing the skin  
14 defect and then generate a comparison between that numeric severity and a predetermined value  
15 associated with a population of people.

16           38.     In allowing the claims of the ‘003 Patent, the Patent Examiner correctly observed  
17 that:

18           [T]he prior art taken alone or in combination fails to suggest a method for locating  
19 one or more skin defects of a portion of a person that includes acquiring a first  
20 digital image of the portion of the person, electronically analyzing the first digital  
21 image of the portion of the person to locate an area containing a skin defect,  
22 determining a first numerical severity associated with the area containing the skin  
23 defect and generating a comparison between the first numerical severity and a  
24 predetermined value associated with a population of people in combination with  
25 the other elements of the claims.

26           39.     In general, prior art skin evaluations assessed defects on the basis of the presence  
27 or the absence of particular characteristics, such as whether the defect was or was not  
28 asymmetric, had or did not have an irregular border, did or did not vary in color, was or was not  
larger than a threshold diameter. Moreover, even limited to such rudimentary, largely binary  
assessments, such prior art methods often could not avoid subjective applications by clinicians.

40. Moreover, prior art devices, and the methods they employed, were directed to the classification of individual skin structures; for example, whether a discolored area of the skin was a melanoma or not. Such devices, and the methods they employed, did not provide a means of determining the severity of the subject's skin defects with respect to a population of people specific to an age, geography and/or particular ethnicity. As a result, these prior art devices, and methods employed, did not provide a subject with objective information that permitted the subject to evaluate quantitatively the severity of his or her skin defects as a function of the projected normal severity of such defects amongst a population to which the subject belonged.

41. In addition, by incorporating predetermined values relating to a relevant population in the electronic analysis of the sub-image area of the subject's skin and in the calculation of an objective, numeric severity for the subject's skin defects, the invention provided a system that was further able to visually simulate worsening and/or improving conditions for the specific skin defects identified.

42. The unique configuration and capabilities of the invention thus made possible the simulation and generation of digital images of skin for display that projected the worsening and/or improvement of the specific skin defects identified by means of the digital image processing techniques disclosed.

**COUNT I**

## INFRINGEMENT OF THE '003 PATENT

43. Plaintiffs incorporate by reference Paragraphs 1 through 42 in their entirety as if fully set forth herein.

44. Without license or authority, Defendant QUANTIFICARE has, on information and belief, used, sold and offered to sell within the United States, and has imported into the United States, products embodying and designed to use the inventions claimed in the '003 Patent (the "Accused Products"). The products include at least those marketed under the names LifeViz Infinity, LifeViz Mini and DermaViz.

1           45. In doing so, Defendant QUANTIFICARE has infringed, and continues to  
2 infringe, the '003 Patent.

3           46. Defendant QUANTIFICARE has known of the '003 Patent and Plaintiffs' claims  
4 of infringement since at least on or about March 3, 2017. On or about March 3, 2017,  
5 QUANTIFICARE's representative was served with a letter advising QUANTIFICARE of the  
6 infringement of the '003 Patent by reason of its Accused Products.

7           47. Defendant QUANTIFICARE has directly and indirectly infringed and continues  
8 to directly and indirectly infringe the following identified claims of the '003 Patent by using its  
9 Accused Products, and by actively and intentionally inducing the direct infringing use of those  
10 products by its customers and others within the United States.

11           48. QUANTIFICARE has instructed and encouraged its customers and others, by  
12 means of, on information and belief, user guides and other promotional and instructional  
13 literature, among other things, to use the Accused Products in a manner which infringes those  
14 claims of the '003 Patent.

15           49. QUANTIFICARE has sold in and imported into the United States components of  
16 an apparatus constituting a material part of the inventions claimed in the following claims of the  
17 '003 Patent, knowing the same to be especially made or especially adapted for use in an  
18 infringement of such patent, and not a staple article or commodity of commerce suitable for  
19 substantial noninfringing use.

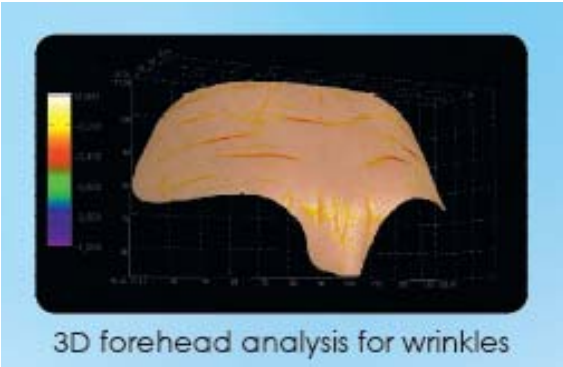
20           50. As an example, but in no way intended to be representative of QUANTIFICAREs  
21 infringement of each of the further claims identified in the following (each of which is defined  
22 by its own limitations), QUANTIFICARE has infringed Claim 13 of the '003 Patent by making,  
23 using, and inducing others to make and use the Accused Products in this country, and by  
24 importing such components thereof into the United States. The Accused Products constitute an  
25 apparatus comprising a digital camera, a programmed computer including a controller that  
26 includes data memory, such as a random-access memory or disk drive, memory storing the  
27

1 relevant programming, and a microprocessor, all interconnected using an address/data bus, and  
2 various input devices, such as a keyboard and/or mouse used to enter data and commands into  
3 the controller. The apparatus is adapted to locate one or more skin defects of a portion of a  
4 person by acquiring a first digital image of a portion of the person, electronically analyzing the  
5 first digital image of the portion of the person to locate an area containing a skin defect,  
6 determining a first numerical severity associated with the area containing the skin defect, and  
7 generating a comparison between the first numerical severity and a predetermined value  
8 associated with a population of people.

9 51. For example, QUANTIFICARE offers to sell the LifeViz Mini, promoting it as a  
10 “portable camera system capable of skin analysis.” See Quantificare Brochure attached as  
11 Exhibit B. The LifeViz Mini is shown in the photo below:



22 52. As evidenced below, the LifeViz Mini acquires a digital image of a portion of a  
23 person (*e.g.* the face) and electronically analyzes it to locate areas containing skin defects (*e.g.*  
24 wrinkles):  
25  
26  
27



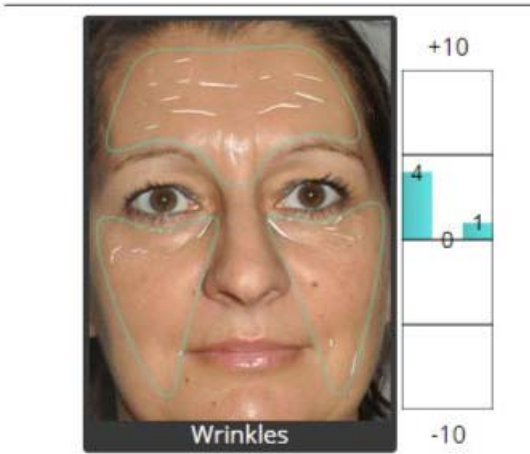
See Exh. B.

53. As further evidenced below, the LifeViz Mini determines a numerical severity associated with the area containing the defect and generates a comparison between that numerical severity and a predetermined value associated with a population of people:

**-> Quick & intuitive interface**

With a single click, generate patient scores against a matching population for the following measurements:

- Wrinkles
- Oiliness
- Pores
- Evenness
- Red spots / Brown spots
- Red map / Brown Map



1 See Exh. B.

2 54. Defendant QUANTIFICARE has further practiced the method recited in Claim 1,  
3 and actively and intentionally induced its customers and others to use the Accused Products to  
4 practice that method within the United States, to locate one or more skin defects of a portion of a  
5 person by acquiring a first digital image of a portion of the person, electronically analyze the first  
6 digital image of the portion of the person to locate an area containing a skin defect, determine a  
7 first numerical severity associated with the area containing the skin defect, and generate a  
8 comparison between the first numerical severity and a predetermined value associated with a  
9 population of people.

10 55. The predetermined data value is associated with a population of people that is one  
11 of a group consisting of (a) an age specific value, (b) a geographic specific value, and (c) and  
12 ethnic specific value, as recited in Claim 2 of the '003 Patent.

13 56. The Accused Products store the numeric severity associated with the area  
14 containing the skin defect for purposes of tracking a plurality of skin defect severities associated  
15 with a person over time, as recited in Claim 3 of the '003 Patent.

16 57. The Accused Products electronically create a second digital image visually  
17 identifying the area containing the skin defect and display that image, as recited in Claim 4 of the  
18 '003 Patent.

19 58. The Accused Products repeatedly alternate the display of the first digital image of  
20 the person and the second digital image of the person, as recited in Claim 8 of the '003 Patent.

21 59. The Accused Products identify a plurality of landmarks located on the first digital  
22 image of a portion of a person, electronically determine a sub-image of the first digital image of  
23 the portion of the person based on the plurality of landmarks, and limit the electronic analysis of  
24 the first digital image to this sub-image, as recited in Claim 9 of the '003 Patent.

1           60.     The Accused Products identify skin defects comprising one of the group  
2 consisting of (a) wrinkles, (b) fine lines, (c) smoothness, (d) texture, (e) follicular pores, (f) red  
3 spots, (g) hyperpigmentation, and (h) brown spots, as recited in Claim 11 of the '003 Patent.

4           61.     The Accused Products electronically analyze the first digital image of the face of  
5 the person to determine an overall skin characteristic associated with the digital image of the face  
6 of the person, as recited in Claim 12 of the '003 Patent.

7           62.     As recited in Claim 14 of the '003 Patent, the Accused Products include a tangible  
8 medium storing program instructions adapted to perform the method recited in Claim 1.

9           63.     As depicted above, the Accused Products acquire a first digital image of the face  
10 of a person having both a size and a skin color and, on information and belief, they identify a  
11 plurality of landmarks comprising (a) a corner of an eye in the first digital image, (b) a corner of  
12 a nose in the first digital image, and (c) a corner of a mouth in the first digital image, they  
13 electronically determine a sub-image of the first digital image based upon the plurality of  
14 landmarks, and electronically analyze the sub-image to locate a plurality of defect areas wherein  
15 each defect area contains a visual skin defect and each defect area has a size that is less than  
16 about 10% of the size of the first digital image of the face of the person, as recited in claim 30 of  
17 the '003 Patent.

18           64.     The Accused Products also select positions of a subset of landmarks via the  
19 activation of an input device while a cursor is displayed on the display device at each such  
20 landmark and, on information and belief, electronically determines the positions of a further  
21 subset of landmarks based upon the position of the selected landmarks and a predetermined  
22 template of standard landmarks, as recited in Claim 32 of the '003 Patent.

23           65.     The Accused Products also, on information and belief, identify a plurality of  
24 landmarks located in the first digital image of the face of the person by electronically detecting  
25 the position of at least one such landmark, as recited in Claim 33 of the '003 Patent.

1           66.     The Accused Products also electronically creates a second digital image based  
2 upon the first digital image of the face of the person and the location of the defect areas, the  
3 second image visually identifying the plurality of defect areas located in the first digital image by  
4 electronically altering the color of a plurality of pixels substantially in the area containing the  
5 skin defect to at least one color visually distinct from the skin color of the first digital image, as  
6 recited in Claim 34 of the '003 Patent.

7           67.     The Accused Products also determine a first numerical severity associated with  
8 the plurality of defect areas located in the first digital image of the face of a person and generate  
9 a comparison between the first numerical severity and a predetermined value associated with a  
10 population of people, as recited in Claim 35 of the '003 Patent.

11          68.     As recited in Claim 36 of the '003 Patent, the Accused Products constitute an  
12 apparatus that performs the method recited in Claim 30.

13          69.     As recited in Claim 37 of the '003 Patent, the Accused Products include a tangible  
14 medium storing program instructions adapted to perform the method recited in Claim 30.

15          70.     The Accused Products acquire a digital image of the face of a person,  
16 electronically determine a sub-image of the digital image, electronically analyze the sub-image  
17 to determine an overall skin characteristic associated with the digital image of the face of the  
18 person, and determine a comparison between the overall skin characteristics and a predetermined  
19 value associated with a population of people, as recited in Claim 38 of the '003 Patent.

20          71.     The Accused Products also generate a second digital image based on the  
21 comparison between the overall skin-characteristics and the predetermined value and display the  
22 second digital image on a display, as recited in Claim 39 of the '003 Patent.

23          72.     As recited in Claim 40 of the '003 Patent, the Accused Products constitute an  
24 apparatus adapted to perform the method recited in Claim 38.

25          73.     As recited in Claim 41 of the '003 Patent, the Accused Products include a tangible  
26 medium storing program instructions adapted to perform the method recited in Claim 38.

74. On information and belief, Defendant will continue to infringe the '003 Patent, unless enjoined by this Court.

75. QUANTIFICARE has been aware of the '003 Patent during the course of its infringing activities since at least March 3, 2017 and, on information and belief, QUANTIFICARE knew earlier of the '003 Patent and/or was willfully blind to it.

76. QUANTIFICARE's infringing actions described above were undertaken with the knowledge and the intent that those actions, and those of its customers and others which they induced, would infringe the '003 Patent.

77. QUANTIFICARE's infringing activities have been objectively reckless and, therefore, willful and in deliberate disregard of Plaintiffs' rights in the Patent.

78. As a consequence of the acts of infringement by Defendants, Plaintiffs have been damaged in an amount not yet determined, and Plaintiffs will continue to be irreparably harmed unless and until QUANTIFICARE is enjoined by an order of this Court from committing further acts of infringement.

#### REQUESTED RELIEF

WHEREFORE, Plaintiffs P&G and CSI respectfully request that judgment be entered in their favor and against Defendant QUANTIFICARE, such judgment providing:

- A. That Defendant has infringed the Patent;
- B. That the infringement by Defendant has been, and continues to be, willful;
- C. That Plaintiffs be awarded their actual damages resulting from the acts of infringement complained of herein including, without limitation, no less than a reasonable royalty pursuant to 35 U.S.C. § 284, together with interest and costs, and that Plaintiffs' damages be trebled pursuant to 35 U.S.C. § 284 in view of the willful and deliberate nature of the infringement;
- D. That Defendant be permanently enjoined from engaging in the aforementioned acts and from otherwise infringing the claims of the Patent;

1 E. That this case be declared exceptional within the meaning of 35 U.S.C. § 285 and  
2 that Plaintiffs be awarded their reasonable attorneys' fees incurred in connection with this case;  
3 and

4 F. For such other or further relief as this Court may deem just and proper under the  
5 circumstances.

6  
7 **JURY DEMAND**

8 Plaintiffs demand a trial by jury of all issues so triable.

9 Respectfully submitted,

10 Dated: August 10, 2017

11 WILLENKEN WILSON LOH &  
12 DELGADO LLP

13 By: /s/ Megan O'Neill

Megan O'Neill

14 MARSHALL, GERSTEIN & BORUN LLP

15 Thomas L. Duston  
16 Julianne M. Hartzell  
17 Tron Y. Fu

18 Attorneys for Plaintiffs  
19 THE PROCTER & GAMBLE  
20 COMPANY and CANFIELD  
21 SCIENTIFIC INCORPORATED  
22  
23  
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27

**CERTIFICATE OF SERVICE**

I hereby certify that I electronically filed the foregoing with the Clerk of the Court using the CM/ECF system which will send notification of such filing to the Electronic Service List for this Case.

Dated: August 10, 2017

By: /s/Megan O'Neill

Megan O'Neill

Attorney for Plaintiffs

THE PROCTER & GAMBLE COMPANY and  
CANFIELD SCIENTIFIC INCORPORATED