

**IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

CAO GROUP, INC.,

Plaintiff,

v.

ZHUHAI JIASHU DIANZISHANGWU
YOUXIANGONGSI
D/B/A GD-WHITENING,

Defendant.

Case No.: 1:24-cv-05129

Judge Thomas M. Durkin

JURY TRIAL DEMAND

SECOND AMENDED COMPLAINT

Plaintiff CAO Group, Inc. (“CAO”) hereby brings the present action against Defendant Zhuhai Jiashu Dianzishangwu Youxiangongsi doing business as GD-Whitening and formerly known as GD-SSS (hereinafter referred to as “GD-Whitening”), as follows:

I. JURISDICTION AND VENUE

1. This Court has original subject matter jurisdiction over CAO’s claims pursuant to the provisions of the Patent Act, 35 U.S.C. § 1 *et seq.*, 28 U.S.C. § 1338(a)-(b) (exclusive patent claim jurisdiction), and 28 U.S.C. § 1331 (original federal question jurisdiction).

2. Venue is proper in this Court pursuant to 28 U.S.C. § 1391, and this Court may properly exercise personal jurisdiction over GD-Whitening because GD-Whitening structures its business activities so as to target consumers in the United States, including Illinois, through at least the fully interactive e-commerce stores operating under the alias GD-Whitening. Specifically, GD-Whitening has targeted sales to Illinois residents by setting up and operating e-commerce stores that target United States consumers, offer shipping to the United States, including Illinois, accept payment in U.S. dollars and, on information and belief, sell products which infringe CAO’s

patented inventions, as described below, (collectively, the “Unauthorized Products”) to residents of Illinois. GD-Whitening is committing tortious acts in Illinois, is engaging in interstate commerce, and has wrongfully caused CAO substantial injury in the state of Illinois.

II. INTRODUCTION

3. CAO was founded by Dr. Densen Cao, Ph.D., in Salt Lake County, Utah in 2000, following Dr. Cao’s completion of Ph.D. studies in Materials Science and Engineering from the University of Utah. Before founding CAO, Dr Cao also served as coordinator of material science at Clinical Research Associated, where examined dental materials, such as glass ionomers and their fluoride release, the properties of composites and adhesives, and dental equipment, and serving as a staff engineer at Fairchild Semiconductor, respectively.

4. In connection with years of research and development, CAO researched, developed, and patented ground-breaking inventions and advancements in the dental, oral health, and LED light, forensic, and others, publicly disclosing their novel inventions in more than 192 issued and published patent applications world-wide.

5. For example, Dr. Cao invented LED curing light technology for use in dental applications, which nearly all major dental manufacturers have licensed. Dr. Cao also invented LED light sources for general lighting purposes which have been widely adopted by nearly all providers in the lighting field.

6. CAO also developed and patented technology underlying the first compact and portable soft-tissue diode laser, receiving several patents in the process, including, but not limited to U.S. Patent Nos. 7,485,116; 8,337,097; 8,834,457; 8,961,040; and 9,967,883. These diode laser technologies are prolific throughout dental practices, and major companies in this field license CAO’s technology.

7. In 2006, CAO moved into their 60,000 square-foot facility in West Jordan, Utah, which houses its Research and Development, Engineering, Manufacturing, Global Logistics, Customer Support, Marketing and Sales teams.

8. CAO created advanced dental strip technologies to deliver various medications and other ingredients, including improved professional whitening products. These improved dental whitening strips contained chemical compositions that permitted higher concentrations of active whitening agents with an improved fit to conform to teeth, which thus delivered faster and improved results in a shorter time. CAO's efforts in this field resulted in the U.S. Patent Office granting CAO numerous patents.

9. In 2010, CAO launched its Sheer White! Teeth Whitening Strips for dental patient's in-home use. CAO advertises that while wearing this product, due to the patented non-slip formula, the user "can talk, drink [cool beverages], workout, and get on with their day." <https://caogroup.com/products/sheer-white-take-home> (Last visited 02/18/2024).

10. That same year, CAO entered into an exclusive distribution relationship regarding its core dental products, including Sheer White! Whitening Strips, with Henry Schein, the world's largest distributor of professional dental equipment and supplies.

11. CAO's Sheer White! Whitening Strips became the top selling teeth whitening product within this Henry Schein distribution channel.

12. CAO's Sheer White! Whitening Strips are marked with the Patents-in-Suit. <https://caogroup.com/pages/patents> (Last visited 02/18/2024).

III. THE PARTIES

13. Plaintiff, CAO Group, Inc., is a Utah corporation with its principal place of business at 4628 West Skyhawk Drive, West Jordan, Utah 84084 and is the owner of the patents asserted in this action.

14. On information and belief, Defendant Zhuhai Jiashu Dianzishangwu Youxiangongsi doing business as GD-Whitening is a company organized in and operating out of the People's Republic of China. This company owns and operates the GD-Whitening store on Amazon Marketplace.

15. On information and belief, GD-Whitening store on Amazon Marketplace was formerly known as GD-SSS. The name change occurred in November 2023 but the Seller ID remains the same.

16. GD-Whitening lists for sale Gloridea Teeth Whitening Strips, herein referred to as the Unauthorized Products.

IV. THE ASSERTED PATENTS

17. CAO owns US 10,603,259 Patent ("’259 Patent"), and holds all substantial rights, title, and interest in and to the ’259 Patent, including the right to sue for infringement. A true and correct copy of the ’259 Patent is attached as **Exhibit A**.

18. The ’259 Patent is entitled "PEROXIDE GEL COMPOSITION" and issued on March 31, 2020 for U.S. Patent Application No. 15/488,293, filed April 14, 2017. The ’259 Patent ultimately claims priority to an application filed February 8, 2006.

19. Mr. Steven D. Jensen, a CAO chemist, is a co-inventor of CAO's ’259 Patent. Mr. Jensen has worked with CAO for more than fifteen years, during which time he has served and continues to serve as a prolific inventor, including of more than sixty CAO U.S. patents and

published applications. As a chemist at CAO, Mr. Jensen contributed numerous innovations including advanced teeth whitening strips, root canal disinfection, reversible cement, disinfection products, and many others. Prior to joining CAO, Steve Jensen worked as a chemist for several years at Ultradent, a global dental manufacturing company, during which time he contributed to the development of many products, including whitening, pit and fissure sealants, pulp capping agent, luting cement, bonding agents, and caries detection technologies. Mr. Jensen has also lectured nationally on the topic of oral healthcare science and technology.

20. Dr. Densen Cao is the other co-inventor on the '259 Patent.

21. The '259 Patent generally describes dental bleaching devices such as a flexible backing material with a dental composition containing various agents that will not crack or break when the dental bleaching device is flexed. ('259 Patent, Abstract.)

22. The '259 Patent discloses several problems with prior art dental bleaching approaches. By example, the prior art dental trays that used fluids or high-viscosity fluidic gels are very difficult to make and design so that they fit all users and contact teeth evenly due to variations in teeth anatomy, as well as being cumbersome and painful for the patient using the trays. What is more, fluids or high-viscosity fluidic gels used in prior art dental trays or dental strips would be messy, they would not remain in or on dental trays and strips, they were not sufficiently adhesive to remain on the teeth, and various prior art strips would fail to contact uneven teeth, resulting in gaps that would allow saliva to enter and dilute and wash away the gel. ('259 Patent, 2:25-3:50.)

23. What is more, more rigid or solidified prior art compositions either involve two-part treatments that required combination immediately prior to use, which could be messy and inconvenient, and could not be stored as pre-mixed shelf stable compositions because they would

decompose into a dry powder and degraded peroxide, and/or the compositions would crack or break when flexed. ('259 Patent, 3:51-4:19).

24. The '259 Patent discloses improved bleaching devices that use compositions with thickening agents that include at least Poly(2-ethyl-2-oxazoline) or polyvinylpyrrolidone ("PVP") in a manner that allows higher concentrations of peroxide bleaching agent to be used, in a highly viscous composition that can be stored at room temperature for six months. ('259 Patent, 6:28-43; 10:3-7).

25. The '259 Patent further discloses that:

[T]he gels form a bleaching compound that will conform to a user's dental arches and form a bleaching tray **10** without cracking or breaking (**FIG. 3**). The resultant compound is viscoelastic, and gelatinous, having flexibility and consistency similar to the popular confection known as gummi worms, and will deform when removed from the backing material. The resultant tray is initially planar: with a significant body of gelatinous whitening composition adhered to backing.

('259 Patent, 8:16-24).

26. The '259 Patent also discloses:

For purposes of this Application, the term "gelatinous" shall have the definition given first in the American Heritage Dictionary of the English Language, Fourth Edition, ©2006 by Houghton Mifflin Co.: "resembling gelatin, viscous." A gelatinous compound shall be a viscoelastic compound having physical deformation properties between a solid and a fluid. A solid shall be defined as a substance that is sufficiently rigid so that it maintains its form indefinitely, independent of any structure or support. A fluid shall be defined as a substance that will conform and coalesce to the shape of a beaker into which multiple samples of the same substance are placed, within 10 minutes, with hand agitation of the container and/or hand mixing with an implement at 25° C. with an atmospheric pressure of 1 ATM. Therefore, a gelatinous compound, as the term is used in this Application, will have some degree of flex and deformation as required to fit inside a container, but will not coalesce so that a specific sample or portions thereof are still determinable. This is particularly evident if a number of discrete units of gelatinous material are placed in a container-they will bend as they contact the container but will not merge into one body.

('259 Patent, 5:49-6:3).

27. The inventive subject matter of the '259 Patent is characterized by its three independent claims and 30 total claims, interpreted in view of its specification and prosecution history. Claim 1 of the '259 Patent is set forth below:

1. A dental bleaching device, comprising:

a dental bleaching device comprising a dental composition on a strip of backing material, wherein the strip of backing material is flexible and insoluble in water;

wherein the dental bleaching device is packaged in a package;

wherein the dental composition, when applied on the strip of backing material, comprises a peroxide bleaching agent, a first solvent, and a thickening agent;

wherein the first solvent is water;

wherein the thickening agent is at least one of poly(2-ethyl-2-oxazoline) and polyvinylpyrrolidone;

wherein, when the dental composition is applied on the strip of the backing material, the thickening agent is included in an amount more by weight of the dental composition than the water:

wherein the dental composition is dried after being applied on the strip of backing material;

wherein the dental composition is gelatinous and viscoelastic

- (a) after the dental composition has been applied on the backing material and dried,
- (b) during storage of the dental bleaching device at room temperature for a period of time up to six months in package,
- (c) after the dental bleaching device has been removed from the package, and
- (d) when the dental composition is flexibly positioned on teeth; and

wherein the dental composition has physical deformation properties such that, after the dental bleaching device has been removed from the package, the dental composition may be positioned on surfaces of adjacent teeth in a dental arch, bend and conform to surfaces of adjacent teeth in a dental arch and remain on the strip of backing material during use.

28. By issuing the '259 Patent, each of the claims was shown to be inventive, novel, non-obvious, and innovative over at least the disclosures in the prosecution history.

ASSERTED U.S. PATENT NO. 10,646,419

29. CAO owns the '419 Patent, and holds all substantial rights, title, and interest in and to the '419 Patent, including the right to sue for infringement. A true and correct copy of the '419 Patent is attached hereto as **Exhibit B**.

30. The '419 Patent is entitled "PEROXIDE GEL COMPOSITIONS" and issued on May 12, 2020, from U.S. Patent Application No. 15/627.906, filed on June 20, 2017. The '419 Patent ultimately claims priority to an application filed February 8, 2006.

31. Similar to the '259 Patent, Mr. Jensen and Mr. Cao are co-inventors on the '419 Patent.

32. The '419 Patent and the '259 Patent issued from applications that were each continuation applications stemming from the same parent application, namely, Patent Application No. 14/710.416 (now U.S. Patent No. 9,789,036). As such, the specifications of the '419 Patent and the '259 Patent are substantively identical, and the disclosures discussed above with respect to the '259 Patent at paragraphs 19-25 apply likewise to the '419 Patent, and such paragraphs are fully incorporated as if made here for the '419 Patent.

33. The inventive subject matter of the '419 Patent is characterized by its three independent claims and 35 total claims, interpreted in view of its specifications and prosecution history. Claim 1 of the '419 Patent is as follows:

1. A dental bleaching device, comprising:

a strip of backing material, wherein the strip of backing material is flexible and planar such that the strip of backing material has two flat sides;

a dental composition on one of the flat sides of the strip of backing material such that at least substantially all of one side of the backing material is covered solely by the dental composition;

wherein the dental composition, when applied on the strip of backing material, comprises a peroxide bleaching agent, a first solvent, and a thickening agent;

wherein the first solvent is water;

wherein the thickening agent comprises is at least one of poly(2-ethyl-2-oxazoline) and polyvinylpyrrolidone;

wherein the dental composition is dried after being applied on the strip of backing material;

wherein the dental composition is gelatinous and viscoelastic

(a) after the dental composition has been applied on the backing material and dried,

(b) during storage of the dental bleaching device at room temperature for a period of time up to six months in a package,

(c) after the dental bleaching device has been removed from a package, and

(d) when the dental composition is flexibly positioned on teeth;

wherein the dental composition has physical deformation properties such that, after the dental bleaching device has been removed from the package, the dental composition may be positioned on surfaces of adjacent teeth in a dental arch, bend and conform to surfaces of adjacent teeth in a dental arch and remain on the strip of backing material during use; and

wherein the dental composition has adhesive properties such that, after the dental bleaching device has been removed from a package and is then positioned on adjacent teeth in a dental arch, the dental composition will adhere to surfaces of adjacent teeth in a dental arch.

34. By issuing the '419 Patent, each of the claims was shown to be inventive, novel, non-obvious, and innovative over at least the disclosures in the prosecution history.

ASSERTED U.S. PATENT NO. 11,219,582

35. CAO owns the '582 Patent, and hold all substantial rights, title, and interest in and to the '582 Patent, including the right to sue for infringement. A true and correct copy of the '582 Patent is attached as **Exhibit C**.

36. The '582 Patent is entitled "PEROXIDE GEL COMPOSITION" and issued on January 11, 2022 from U.S. Patent Application No. 16/784,582, filed February 7, 2020. The '582 Patent ultimately claims priority to an application filed February 8, 2006.

37. Mr. Jensen is an inventor of CAO's '582 Patent. CAO has petitioned and the USPTO has approved the addition of Mr. Cao as a co-inventor on the '582 Patent.

38. The '582 Patent issued from an application that was a continuation application stemming from Patent Application No. 15/627,906 (now the '419 Patent), and the '419 Patent and '259 Patent issued from applications that were each continuation applications from the same patent application, namely, Patent Application No. 14/710.416 (now Patent No. 9,789,036). As a result, the specifications of the '582 Patent, '419 Patent, and '259 Patent are substantively identical, and the disclosures discussed above as to the '259 Patent at paragraphs 19-25 apply likewise to the '582 Patent, and such paragraphs are fully incorporated as if made here for the '582 Patent.

39. The inventive subject matter of the '582 Patent is characterized by its two independent claims, interpreted in view of its specification and prosecution history. Claim 1 of the '582 is as follows:

1. A dental bleaching device, comprising:

a strip of backing material, wherein the strip of backing material is flexible and planar such that the strip of backing material has two flat sides;

a dental composition being applied to at least a portion of one of the flat sides of the strip of backing material;

the dental composition being comprised of a peroxide bleaching agent, a solvent, and a thickening agent, said thickening agent being at least one thickening agent selected from the set of thickening agents consisting of polyethyloxazoline and polyvinylpyrrolidone (PVP);

the dental composition having been dried to an extent that it no longer remains in a state of fluidity;

wherein the dried dental composition is gelatinous, non-coalescent, and visco-elastic such that when adhered to a user's dental arch both the dental composition and the backing material flex and conform to a user's dental arch without cracking or breaking.

40. By issuing the '582 Patent, each of the claims was shown to be inventive, novel, non-obvious, and innovative over at least the disclosures in the prosecution history.

ASSERTED U.S. PATENT NO. 11,826,444

41. CAO owns the '444 Patent, and holds all substantial rights title, and interest in and to the '444 Patent, including the right to sue for infringement. A true and correct copy of the '444 Patent is attached as **Exhibit D**.

42. The '444 Patent is entitled "PEROXIDE GEL COMPOSITION" and issued on November 28, 2023 from U.S. Patent Application No. 17/659,473, filed April 15, 2022. The '444 Patent ultimately claims priority to an application filed February 8, 2006.

43. Mr. Jensen and Mr. Cao are co-inventors of the '444 Patent.

44. The '444 Patent issued from an application that was a continuation application stemming from Patent Application No. 16/784,582 (now the '582 Patent), the '582 Patent issued from an application that was a continuation application of Patent Application No. 15/627,906 (now the '419 Patent), and the '419 Patent and '259 Patent issued from applications that were each continuation applications from the same patent application, namely, Patent Application No. 14/710.416 (now Patent No. 9,789,036). As a result, the specifications of the '444 Patent, '582 Patent, '419 Patent, and '259 Patent are substantively identical, and the disclosures discussed above as to the '259 Patent at paragraphs 19-25 apply likewise to the '444 Patent, and such paragraphs are fully incorporated as if made here for the '444 Patent.

45. The inventive subject matter of the '444 Patent is characterized by its three independent claims and 6 total claims, interpreted in view of its specification and prosecution history. Claim 1 of the '444 is as follows:

1. A dental whitening device, comprising:

a strip of backing material, wherein the strip of backing material is flexible and planar such that the strip of backing material has two flat sides;

a gelatinous, non-coalescent, visco-elastic, dental composition conjoined to at least a portion of one of the flat sides of the strip of backing material, the dental composition be comprised of a tooth whitening agent, a solvent, and a thickening agent selected from the set of thickening agents consisting of polyethyloxazoline and polyvinylpyrrolidone (PVP);

wherein when adhered to a user's dental arch both the dental composition and the backing material flex and conform to the user's dental arch without cracking or breaking.

46. By issuing the '444 Patent, each of the claims was shown to be inventive, novel, non-obvious, and innovative over at least the disclosures in the prosecution history.

ASSERTED U.S. PATENT NO. 11,826,445

47. CAO owns the '445 Patent, and holds all substantial rights title, and interest in and to the '445 Patent, including the right to sue for infringement. A true and correct copy of the '445 Patent is attached as **Exhibit E**.

48. The '445 Patent is entitled "PEROXIDE GEL COMPOSITION" and issued on November 28, 2023 from U.S. Patent Application No. 18/049,843, filed October 26, 2022. The '445 Patent ultimately claims priority to an application filed February 8, 2006.

49. Mr. Jensen and Mr. Cao are co-inventors of the '445 Patent.

50. The '445 Patent issued from an application that was a continuation application stemming from Patent Application No. 17/659,473 (now the '444 Patent), the 444 Patent issued from an application that was a continuation application stemming from Patent Application No. 16/784,582 (now the '582 Patent), the '582 Patent issued from an application that was a continuation application of Patent Application No. 15/627,906 (now the '419 Patent), and the '419 Patent and '259 Patent issued from applications that were each continuation applications from the same patent application, namely, Patent Application No. 14/710.416 (now Patent No. 9,789,036). As a result, the specifications of the '445 Patent, '444 Patent, '582 Patent, '419 Patent, and '259 Patent are substantively identical, and the disclosures discussed above as to the '259 Patent at paragraphs 19-25 apply likewise to the '445 Patent, and such paragraphs are fully incorporated as if made here for the '445 Patent.

51. The inventive subject matter of the '445 Patent is characterized by its two independent claims, interpreted in view of its specification and prosecution history. Claim 1 of the '445 is as follows:

1. A dental whitening device, comprising:

a strip of backing material, wherein the strip of backing material is flexible and planar such that the strip of backing material has two flat sides;

a gelatinous, non-coalescent, visco-elastic, dental composition conjoined to at least a portion of one of the flat sides of the strip of backing material, the dental composition be comprised of a peroxide bleaching agent, a solvent, and a thickening agent selected from the set of thickening agents consisting of polyethyloxazoline and polyvinylpyrrolidone (PVP);

wherein when adhered to a user's dental arch both the dental composition and the backing material flex and conform to the user's dental arch without cracking or breaking.

52. By issuing the '445 Patent, each of the claims was shown to be inventive, novel, non-obvious, and innovative over at least the disclosures in the prosecution history. The '445 Patent issued on November 2, 2023. *See Id.*

53. CAO developed a product line which embodies CAO's Patents, under the name "Sheer White! Teeth Whitening Strips" (collectively, "CAO's Products"), exclusively through its website (www.caogroup.com) and through its authorized distributor Henry Schein. CAO's aforementioned product line includes dental whitening strips for both in-home use by patients and for use within dental offices.

54. U.S. Patent Nos. 10,603,259 ("the '259 Patent"); 10,646,419 ("the '419 Patent"); 11,219,582 ("the '582 Patent"); 11,826,444 ("the '444 Patent"); and 11,826,445 ("the '445 Patent") are collectively referred to as "CAO's Patents" or "Asserted Patents".

55. CAO provides notice of its patent rights directly on the packaging of all of CAO's Products. True and correct copies of the packaging drawings for CAO's Products, and annotated copies of the packaging drawings for CAO's Products with the notice of patent rights marked, are attached hereto as **Exhibit F**.

56. CAO lists each of CAO's Patents on the packaging of all of CAO's Products and displays the URL to CAO's website (www.caogroup.com/patents), where CAO displays a list of its products, and which patents those products embody. CAO's Products are listed as embodying CAO's Patents. See **Exhibit F** and Figures 1, 2, 3, and 4.



Figure 1 (Exhibit 2, Page 2)

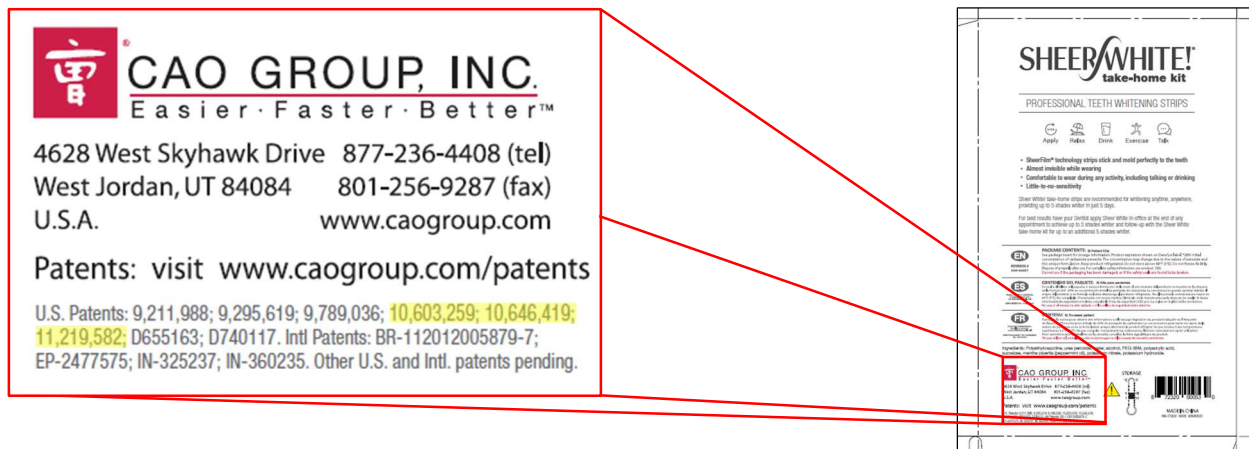


Figure 2 (Exhibit 2, Page 4)

57. GD-Whitening's unauthorized use and/or manufacturing of the invention claimed in CAO's Patents in connection with the distribution, offering for sale, and sale of Unauthorized Products, including the sale of Unauthorized Products into the United States, including Illinois, is likely to cause, and has caused, loss of market share and erosion of CAO's patent rights is irreparably harming CAO.

COUNT I
PATENT INFRINGEMENT (15 U.S.C. § 271) – THE '259 PATENT

58. CAO hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

59. As shown, GD-Whitening is knowingly and willfully manufacturing, importing, distributing, offering for sale, and selling the Unauthorized Products in the same transaction, occurrence, or series of transactions or occurrences. On information and belief, GD-Whitening, without any authorization or license from CAO, has knowingly and willfully offered for sale, sold, and/or imported into the United States for subsequent resale or use the same product that infringes directly and/or indirectly the '259 Patent.

60. As shown in the claim charts attached hereto as **Exhibit G**, the products being sold by GD-Whitening a/k/a Gloridea Teeth Whitening Strips infringes at least Claim 1 of the '259 Patents. The claim charts of **Exhibit G** are illustrative only and are made without the benefit of discovery or claim construction, and CAO reserves the right to modify its infringement theory as appropriate as the case proceeds. Although the claim chart only includes Claim 1, CAO alleges that GD-Whitening has infringed each and every claim of the '259 Patent.

61. Specifically, GD-Whitening has infringed and continue to infringe each and every claim of the '259 Patent by making, using, importing, selling, and/or offering to sell their infringing products in the United States without authorization or license from CAO.

62. GD-Whitening has profited by their infringement of the '259 Patent, and CAO has suffered actual harm as a result of GD-Whitening's infringement.

63. As a direct and proximate result of GD-Whitening's infringement, CAO has suffered irreparable harm and monetary and other damages in an amount to be determined. GD-Whitening's infringement of the '259 Patent in connection with the offering to sell, selling, or importing of products that infringe the '259 Patent, including such acts into the State of Illinois, is irreparably harming CAO. GD-Whitening's wrongful conduct has caused CAO to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making, using, selling, offering for sale, and importing the patented inventions as well as the lost sales and loss of repeat sales stemming from the infringing acts.

64. GD-Whitening's infringement has been and continues to be willful. Accordingly, CAO is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

65. CAO is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless GD-Whitening is preliminarily and permanently enjoined by this Court from continuing their infringement of the '259 Patent, CAO will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

66. CAO is entitled to recover damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, in no event less than a reasonable royalty.

COUNT II
PATENT INFRINGEMENT (15 U.S.C. § 271) – THE '419 PATENT

67. CAO hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

68. As shown, GD-Whitening is knowingly and willfully manufacturing, importing, distributing, offering for sale, and selling the Unauthorized Products in the same transaction, occurrence, or series of transactions or occurrences. On information and belief, GD-Whitening, without any authorization or license from CAO, has knowingly and willfully offered for sale, sold, and/or imported into the United States for subsequent resale or use the same product that infringes directly and/or indirectly the '419 Patent.

69. As shown in **Exhibit G**, the products being sold by GD-Whitening a/k/a Gloridea Teeth Whitening Strips infringes at least Claim 1 of the '419 Patent. The claim charts of **Exhibit G** are illustrative only and are made without the benefit of discovery or claim construction, and CAO reserves the right to modify its infringement theory as appropriate as the case proceeds. Although the claim chart only includes Claim 1 of the '419 Patent, CAO alleges that GD-Whitening has also infringed on each and every other claim of the '419 Patent.

70. Specifically, GD-Whitening has infringed and continue to infringe each and every claim of the '419 Patent by making, using, importing, selling, and/or offering to sell their infringing products in the United States without authorization or license from CAO.

71. GD-Whitening has profited by their infringement of the '419 Patent, and CAO has suffered actual harm as a result of GD-Whitening's infringement.

72. As a direct and proximate result of GD-Whitening's infringement, CAO has suffered irreparable harm and monetary and other damages in an amount to be determined. GD-Whitening's infringement of the '419 Patent in connection with the offering to sell, selling, or importing of products that infringe the '419 Patent, including such acts into the State of Illinois, is irreparably harming CAO. GD-Whitening's wrongful conduct has caused CAO to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making,

using, selling, offering for sale, and importing the patented inventions as well as the lost sales and loss of repeat sales stemming from the infringing acts.

73. GD-Whitening's infringement has been and continues to be willful. Accordingly, CAO is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

74. CAO is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless GD-Whitening is preliminarily and permanently enjoined by this Court from continuing their infringement of the '419 Patent, CAO will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

75. CAO is entitled to recover damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, in no event less than a reasonable royalty.

COUNT III
PATENT INFRINGEMENT (15 U.S.C. § 271) – THE '582 PATENT

76. CAO hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

77. As shown, GD-Whitening is knowingly and willfully manufacturing, importing, distributing, offering for sale, and selling the Unauthorized Products in the same transaction, occurrence, or series of transactions or occurrences. On information and belief, GD-Whitening, without any authorization or license from CAO, has knowingly and willfully offered for sale, sold, and/or imported into the United States for subsequent resale or use the same product that infringes directly and/or indirectly the '582 Patent.

78. As shown in **Exhibit G**, the products being sold by GD-Whitening a/k/a Gloridea Teeth Whitening Strips infringes at least Claim 1 of the '582 Patent. The claim charts of **Exhibit**

G are illustrative only and are made without the benefit of discovery or claim construction, and CAO reserves the right to modify its infringement theory as appropriate as the case proceeds. Although the claim chart only includes Claim 1 of the '582 Patent, CAO alleges that GD-Whitening has also infringed on each and every other claim of the '582 Patent.

79. Specifically, GD-Whitening has infringed and continue to infringe each and every claim of the '582 Patent by making, using, importing, selling, and/or offering to sell their infringing products in the United States without authorization or license from CAO.

80. GD-Whitening has profited by their infringement of the '582 Patent, and CAO has suffered actual harm as a result of GD-Whitening's infringement.

81. As a direct and proximate result of GD-Whitening's infringement, CAO has suffered irreparable harm and monetary and other damages in an amount to be determined. GD-Whitening's infringement of the '582 Patent in connection with the offering to sell, selling, or importing of products that infringe the '582 Patent, including such acts into the State of Illinois, is irreparably harming CAO. GD-Whitening's wrongful conduct has caused CAO to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making, using, selling, offering for sale, and importing the patented inventions as well as the lost sales and loss of repeat sales stemming from the infringing acts.

82. GD-Whitening's infringement has been and continues to be willful. Accordingly, CAO is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

83. CAO is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless GD-Whitening is preliminarily and permanently enjoined by this Court from continuing their

infringement of the '582 Patent, CAO will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

84. CAO is entitled to recover damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, in no event less than a reasonable royalty.

COUNT IV
PATENT INFRINGEMENT (15 U.S.C. § 271) – THE '444 PATENT

85. CAO hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

86. CAO is informed and believes, and on that basis alleges, that the products being sold by GD-Whitening a/k/a Gloridea Teeth Whitening Strips infringed and is currently infringing one or more claims (*e.g.*, at least claim 1) of the '444 Patent, in violation of at least 35 U.S.C. § 271(a) by using, offering to sell, and selling GD-Whitening's infringing products. As shown in **Exhibit G**, the products being sold by GD-Whitening infringes at least Claim 1 of the '444 Patent. The claim charts of **Exhibit G** are illustrative only and are made without the benefit of discovery or claim construction, and CAO reserves the right to modify its infringement theory as appropriate as the case proceeds.

87. Specifically, GD-Whitening has infringed and continue to infringe each and every claim of the '444 Patent by making, using, importing, selling, and/or offering to sell their infringing products in the United States without authorization or license from CAO.

88. GD-Whitening has profited by their infringement of the '444 Patent, and CAO has suffered actual harm as a result of GD-Whitening's infringement.

89. As a direct and proximate result of GD-Whitening's infringement, CAO has suffered irreparable harm and monetary and other damages in an amount to be determined. GD-

Whitening's infringement of the '444 Patent in connection with the offering to sell, selling, or importing of products that infringe the '444 Patent, including such acts into the State of Illinois, is irreparably harming CAO. GD-Whitening's wrongful conduct has caused CAO to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making, using, selling, offering for sale, and importing the patented inventions as well as the lost sales and loss of repeat sales stemming from the infringing acts.

90. GD-Whitening's infringement has been and continues to be willful. Accordingly, CAO is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

91. CAO is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless GD-Whitening is preliminarily and permanently enjoined by this Court from continuing their infringement of the '444 Patent, CAO will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

92. CAO is entitled to recover damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, in no event less than a reasonable royalty.

COUNT V
PATENT INFRINGEMENT (15 U.S.C. § 271) – THE '445 PATENT

93. CAO hereby re-alleges and incorporates by reference the allegations set forth in the preceding paragraphs.

94. CAO is informed and believes, and on that basis alleges, that GD-Whitening infringed and is currently infringing one or more claims (*e.g.*, at least claim 1) of the '445 Patent, in violation of at least 35 U.S.C. § 271(a) by using, offering to sell, and selling GD-Whitening's infringing products. As shown in **Exhibit G**, the products being sold by GD-Whitening a/k/a

Glorida Teeth Whitening Strips infringes at least Claim 1 of the '445 Patent. The claim charts of **Exhibit G** are illustrative only and are made without the benefit of discovery or claim construction, and CAO reserves the right to modify its infringement theory as appropriate as the case proceeds.

95. Specifically, GD-Whitening has infringed and continue to infringe each and every claim of the '445 Patent by making, using, importing, selling, and/or offering to sell their infringing products in the United States without authorization or license from CAO.

96. GD-Whitening has profited by their infringement of the '445 Patent, and CAO has suffered actual harm as a result of GD-Whitening's infringement.

97. As a direct and proximate result of GD-Whitening's infringement, CAO has suffered irreparable harm and monetary and other damages in an amount to be determined. GD-Whitening's infringement of the '445 Patent in connection with the offering to sell, selling, or importing of products that infringe the '445 Patent, including such acts into the State of Illinois, is irreparably harming CAO. GD-Whitening's wrongful conduct has caused CAO to suffer irreparable harm resulting from the loss of its lawful patent rights to exclude others from making, using, selling, offering for sale, and importing the patented inventions as well as the lost sales and loss of repeat sales stemming from the infringing acts.

98. GD-Whitening's infringement has been and continues to be willful. Accordingly, CAO is entitled to treble damages under 35 U.S.C. § 284 and this is an exceptional case under 35 U.S.C. § 285.

99. CAO is entitled to injunctive relief pursuant to 35 U.S.C. § 283. Unless GD-Whitening is preliminarily and permanently enjoined by this Court from continuing their infringement of the '445 Patent, CAO will continue to suffer additional irreparable harm, including loss of market share and erosion of patent rights.

100. CAO is entitled to recover damages adequate to compensate for the infringement, pursuant to 35 U.S.C. § 284, in no event less than a reasonable royalty.

PRAYER FOR RELIEF

WHEREFORE, CAO prays for judgment against GD-Whitening as follows:

- 1) That GD-Whitening, their affiliates, officers, agents, servants, employees, attorneys, confederates, and all persons acting for, with, by, through, under, or in active concert with them be temporarily, preliminarily, and permanently enjoined and restrained from:
 - a. Making, using, offering for sale, selling and/or importing into the United States for subsequent sale or use any products that infringe upon CAO's Patents; and
 - b. Aiding, abetting, contributing to, or otherwise assisting anyone in infringing upon CAO's Patents.
- 2) Entry of an Order that, upon CAO's request, those with notice of the injunction, including without limitation, any websites and/or online marketplace platforms, such as Amazon, eBay, and Walmart, shall disable and cease displaying any advertisements used by or associated with GD-Whitening in connection with the sale of goods that infringe CAO's Patents.
- 3) That Judgment be entered against GD-Whitening finding that it has infringed upon CAO's Patents.
- 4) That Judgment be entered against GD-Whitening finding that infringement of CAO's Patents has been willful.
- 5) That CAO be awarded damages for such infringement in an amount to be proven at trial, in no event less than a reasonable royalty pursuant to 35 U.S.C. § 284, together with interests and costs.

- 6) That CAO be awarded treble damages under 35 U.S.C. § 284 for GD-Whitening's willful infringement of CAO's Patents.
- 7) A finding that this case is exceptional under 35 U.S.C. § 285.
- 8) That CAO be awarded its reasonable attorneys' fees and costs.
- 9) Award any and all other relief that this Court deems just and proper.

JURY DEMAND

CAO demands a trial by jury on all issues so triable.

Dated: June 21, 2024

Respectfully submitted,

/s/ Edward L. Bishop

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that on June 21, 2024, a true and correct copy of the foregoing document was served via electronic and/or first-class mail to counsel listed below:

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