

velocity setting knob of Mabuchi/Mabuchi '128/Fuhr to include velocity settings that would cover *at least* 0.11 m/s to 1.82 m/s to provide a wider range of treatment speeds to better meet the needs of different uses and different patients, since it has been held that where the general conditions of a claim are disclosed in the prior art (Mabuchi/Mabuchi '128 discloses a freely adjustable velocity knob for providing reciprocating or patting treatment to the skin), discovering the optimum or workable ranges (such as 0.11-0.4 m/s) involves only routine skill in the art. *In re Aller*, 105 USPQ 233. MPEP 2144.05.

12. Claim 3 is rejected under 35 U.S.C. 103 as being unpatentable over Mabuchi (4,513,737) in view of Mabuchi (4,088,128) (hereinafter “Mabuchi ‘128”) and Fuhr (2014/0031866) as applied to claim 2 above, and further in view of Lee et al. (KR 10-2020-0051098).

Regarding claim 3, the modified Mabuchi/Mabuchi '128/Fuhr device discloses wherein the reciprocating attachment [member] (flange 15, tube 10, padder body 9, plate member 7, cushion member 8, Figs. 18-19 of Mabuchi) defines a reciprocating attachment diameter (diameter of cushion member 8, for example) configured to reciprocate, but is silent regarding a module seat defined on the head portion, a ring module is removably secured to the module seat, wherein the ring module includes a central opening that defines a central opening diameter, wherein the central opening diameter is larger than the reciprocating attachment diameter, such that the reciprocating attachment is configured to reciprocate within and relative to the ring module.

Lee teaches a related vibratory beauty treatment device (Fig. 1) wherein the head of the device (upper half of body 12, Fig. 2) includes a module seat (opening configured to receive light emitting unit 20, Fig. 2) defined on the head portion (see Fig. 2), a ring module (light emitting unit 20, Fig. 2) secured to the module seat (see Fig. 2), wherein the ring module (20) includes a central opening (see Fig. 2) that defines a central opening diameter (the central opening of 20 has a given diameter), wherein the central opening diameter is larger than a reciprocating attachment diameter (the central opening 20 of 20 has a diameter greater than the diameter of vibrating portion 14, Fig. 2; “substrate 24 is disposed around the vibration unit 14” see the last four lines of page 2 of the translation), such that the reciprocating attachment (14) is configured to reciprocate (vibration/tapping, see the first paragraph of page 3 of the translation) within and relative to the ring module so that both light therapy and vibration/tapping can be provided to the skin at the same time (see Fig. 2, and see the first paragraph of page 3 of the translation).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the head portion of Mabuchi/Mabuchi ‘128/Fuhr to be enlarged to have room to receive a ring module that has a central opening to still allow the reciprocating unit to move relative to the ring module as taught by Lee so that the modified device can simultaneously provide light therapy for beneficial cosmetic effects to the skin (see the first paragraph of page 3 of the translation of Lee).

The modified device does not specifically state that the ring module (light emitting unit 20, Fig. 2 of Lee) is removable. However, it would have been obvious to one having

ordinary skill in the art before the effective filing date of the claimed invention to modify the ring module of Mabuchi/Mabuchi '128/Fuhr/Lee to have the ring module removably attached to the module seat, since it has been held that if it were considered desirable for any reason to obtain access to the removed part, it would be obvious to make the element removable for that purpose (MPEP 2144)(V)(C). There are many possible reasons one of ordinary skill in the art would recognize to make the light emitting module removable. For example it would make it easier to access and repair/replace damaged light emitting parts and repair/replace the reciprocating attachment and attachment member.

13. Claims 5-6 are rejected under 35 U.S.C. 103 as being unpatentable over Mabuchi (4,513,737) in view of Mabuchi (4,088,128) (hereinafter “Mabuchi ‘128”) and Fuhr (2014/0031866) as applied to claim 1 above, and further in view of Kang et al. (2016/0192814).

Regarding claim 5, the modified Mabuchi/Mabuchi '128/Fuhr device discloses wherein the push rod assembly includes a reciprocating shaft (coupling 14, Fig. 18 of Mabuchi), but is silent regarding a flexible sleeve that includes a proximal end and a distal end, wherein the flexible sleeve at least partially surrounds the reciprocating shaft, wherein the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing.

Kang teaches a related vibratory device (Fig. 1) that includes a flexible sleeve (first sealing member 52, Fig. 4) that includes a proximal end (upper portion of sealing plate 52a adjacent boss 18, Fig. 7) and a distal end (lower portion of sealing hole 52b, adjacent plate 44, Fig. 7), wherein the flexible sleeve (52) at least partially surrounds a

reciprocating shaft (center shaft 34, Fig. 7), wherein the distal end (lower portion of 52b, Fig. 7) of the flexible sleeve (52) is secured to the reciprocating shaft (34, Fig. 7) and the proximal end (upper portion of 52a, Fig. 7) is secured to part of the housing (via support boss 18 attached to case member 14a, Fig. 6). The flexible sleeve (52) helps to prevent water from penetrating through the housing (14) and shaft area (see the first sentence of [0075]) to prevent water from damaging internal components even if the user mistakenly soaks the device (see the last two sentences of [0075]). Furthermore, it is noted that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of a flexible sleeve together with the attachment member and housing of Mabuchi/Mabuchi ‘128/Fuhr, “like pieces of a puzzle” to obtain the expected benefit of protecting the internal parts from being damaged by water. See *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the reciprocating shaft, attachment member, and housing of Mabuchi/Mabuchi ‘128/Fuhr to include a flexible sleeve that at least partially surrounds the reciprocating shaft, the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing, as generally taught by Kang so that the internal components of the device are protected from being accidentally damaged by water.

Regarding claim 6, the modified Mabuchi/Mabuchi ‘128/Fuhr/Kang device discloses wherein the reciprocating shaft (14, Fig. 18 of Mabuchi) includes an opening in a distal end thereof (an opening configured to receive magnet 43 and rod 4, Figs. 18-19 of Mabuchi), wherein the attachment member (14, 4, Figs. 18-19) includes a shaft

(rod 4, Figs. 18-19 of Mabuchi) that is received in the opening in the reciprocating shaft (see Fig. 18 of Mabuchi, shaft 4 passes through the opening in shaft 14).

The modified device does not specifically state wherein the distal end of the flexible sleeve (52, Kang) is secured between the distal end of the reciprocating shaft (14, Fig. 18 of Mabuchi) and the attachment member (14, 4, Figs. 18-19 of Mabuchi). However, it is reiterated that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of a flexible sleeve together with the attachment member and reciprocating shaft of Mabuchi/Mabuchi ‘128/Fuhr/Kang, “like pieces of a puzzle” to obtain the expected benefit of protecting the internal parts from being damaged by water. See *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Furthermore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the location of the flexible sleeve of Mabuchi/Mabuchi ‘128/Fuhr/Kang to have the distal end secured by being pressed between the distal end of the reciprocating shaft and the attachment member, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. MPEP 2144.04.

14. Claim(s) 8-10 and 12 are rejected under 35 U.S.C. 103 as being unpatentable over Lin (2015/0045702) in view of Tammabattula (2020/0154874).

Regarding claim 8, Lin discloses a therapy device (Fig. 1) comprising: a housing (holding unit 11, Fig. 1) that includes a handle portion (lower half of unit 11, Fig. 1), a head portion (upper half of unit 11, Fig. 1) and a module seat (notch 111, the annular rim above the notch, first magnetic attraction components 112, and first connection

terminals 113 are considered the module seat, Fig. 1) defined on the head portion (upper half of unit 11, Fig. 1), wherein the module seat includes a first set of magnets (first magnetic attraction components 112, Fig. 1), wherein the module seat includes a first securement recess (notch 111, Fig. 1) defined therein, an electrical source (power supply unit 114, Fig. 1), a therapy module (connection part 13, cover body 15, and cosmetic assembly 17, collectively form a therapy module, Fig. 1) removably secured to the module seat (removably secured via magnetic attraction components parts 112 and 132, see Fig. 1 and see lines 10-15 of [0010]), wherein the therapy module includes a second set of magnets (second magnetic attraction components 132, Fig. 1) that are magnetically attracted to the first set of magnets (see lines 20-29 of [0017]), wherein the therapy module includes a second securement protrusion (fixing block 131, Fig. 1) extending therefrom, and wherein the second securement protrusion (131, Fig. 1) is received in the first securement recess (111, Fig. 1; see lines 14-17 of [0017]).

Lin additionally discloses electrical contacts that couple together (first and second connection terminals 113, 131, Fig. 1), but is silent regarding the module seat including a first securement protrusion extending therefrom; and the therapy module including a second securement recess defined therein, wherein the first securement protrusion is received in the second securement recess.

Tammabattula teaches a related skincare device (Fig. 1) with a module seat (top-surface 4305, Fig. 43) including a first securement protrusion extending therefrom (connector 4301, Fig. 43; removably coupled to a complementary connector 301, Fig. 44; see lines 4-10 of [0269] and note that connector 301 is a female connection, see the penultimate sentence of [0176]); and a therapy module (skincare device 3600, Fig. 40)

including a second securement recess defined therein (connector 301, Fig. 44; this can be a female connection and thus have a recess defined therein, see the penultimate sentence of [0176]), wherein the first securement protrusion (4301, Fig. 43) is received in the second securement recess (301, Fig. 44; see lines 4-10 of [0269]). This allows the module seat and therapy module connection to transmit electrical power and communicate data between the removable parts (see the last eighteen lines of [0269]).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the first and second connection terminals (113, 131, Fig. 1) of Lin to be replaced with a male first securement protrusion and a female second securement recess as taught by Tammabattula because this is a simple substitution of one known electrical connection coupling for another known electrical connection coupling, and would provide an expected result of allowing electrical power and data to be transmitted between the separable modules upon connection.

Regarding claim 9, the modified Lin/Tammabattula device discloses wherein one of the first securement protrusion and the second securement recess includes female electrical contacts (second securement recess 301, Fig. 44 includes female electrical contacts, see the penultimate sentence of [0176] of Tammabattula) and the other of the first securement protrusion and second securement recess includes male electrical contacts (first securement protrusion 4301 shown to include male electrical contacts in Fig. 43, and is stated to complementary couple with 301, a female electrical connector, see lines 4-10 of [0269] of Tammabattula), and wherein connection of the male electrical contacts (4301) and female electrical contacts (301) provides electrical

communication between the electrical source and the therapy module (see lines 29-33 of [0017] of Lin, and the last eighteen lines of [0269] of Tammabattula).

Regarding claim 10, the modified Lin/Tammabattula device discloses wherein the therapy module (13, 15, 17, Fig. 1 of Lin) provides at least one of cold therapy, heat therapy, LED light therapy, microcurrent therapy, photobiomodulation therapy, radio frequency therapy, cleansing therapy or ultrasound therapy (see the last two sentences of [0019] of Lin, the therapy module provides heat therapy).

Regarding claim 12, the modified Lin/Tammabattula device discloses wherein the male electrical contacts (4301, Fig. 43 of Tammabattula) include four prongs (see Fig. 43 of Tammabattula, there are at least four prongs), and discloses that the connection provides both electrical communication and data communication (see the last eighteen lines of [0269] of Tammabattula), but does not specifically state that two of the prongs provide electrical communication and two of the prongs provide data communication.

However, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the four prongs of the male electrical contacts of Lin/Tammabattula to have two prongs for electrical communication and two prongs for data communication, since it has been held that where the general conditions of a claim are disclosed in the prior art (transmitting electrical communication and data communication via male/female electrical connection with at least four prongs taught by Tammabattula), discovering the optimum or workable ranges (two prongs for electrical communication, two prongs for data communication) involves only routine skill in the art. *In re Aller*, 105 USPQ 233. MPEP 2144.05.

15. Claim(s) 8-12 are rejected under 35 U.S.C. 103 as being unpatentable over Lee et al. (KR 10-2020-0051098) in view of Lin (2015/0045702) and Tammabattula (2020/0154874).

Regarding claim 8, Lee discloses a therapy device (Fig. 1) comprising: a housing (body 12, Fig. 2) that includes a handle portion (lower, cylindrical portion of 12, Fig. 1 is capable of being held by a hand as the abstract states it “can be gripped”), a head portion (upper half of body 12, Fig. 2) and a module seat (opening configured to receive light emitting unit 20, Fig. 2) defined on the head portion (see Fig. 2), an electrical source (the device will have an electrical source to operate the motorized vibrating unit 14, and the light emitting unit 20, Fig. 2), a therapy module (light emitting unit 20, Fig. 2) secured to the module seat (see Fig. 2).

Lee is silent regarding wherein the module seat includes a first set of magnets; wherein the module seat includes a first securement protrusion extending therefrom and includes a first securement recess defined therein; and does not specifically state the therapy module is removably secured to the module seat; wherein the therapy module includes a second set of magnets that are magnetically attracted to the first set of magnets; and a second securement protrusion extending therefrom and includes a second securement recess defined therein, wherein the first securement protrusion is received in the second securement recess, and wherein the second securement protrusion is received in the first securement recess.

Lin teaches a related cosmetic device (Fig. 1) comprising: a housing (holding unit 11, Fig. 1) that includes a handle portion (lower half of unit 11, Fig. 1), a head portion (upper half of unit 11, Fig. 1) and a module seat (notch 111, the annular rim above the

notch, first magnetic attraction components 112, and first connection terminals 113 are considered the module seat, Fig. 1) defined on the head portion (upper half of unit 11, Fig. 1), wherein the module seat includes a first set of magnets (first magnetic attraction components 112, Fig. 1), wherein the module seat includes a first securement recess (notch 111, Fig. 1) defined therein, an electrical source (power supply unit 114, Fig. 1), a therapy module (connection part 13, cover body 15, and cosmetic assembly 17, collectively form a therapy module, Fig. 1) removably secured to the module seat (removably secured via magnetic attraction components parts 112 and 132, see Fig. 1 and see lines 10-15 of [0010]), wherein the therapy module includes a second set of magnets (second magnetic attraction components 132, Fig. 1) that are magnetically attracted to the first set of magnets (see lines 20-29 of [0017]), wherein the therapy module includes a second securement protrusion (fixing block 131, Fig. 1) extending therefrom, and wherein the second securement protrusion (131, Fig. 1) is received in the first securement recess (111, Fig. 1; see lines 14-17 of [0017]). The detachable connection also includes a first set of electrical contacts (113, Fig. 1) that couple with a second set of electrical contacts (133, Fig. 1). Furthermore, it is noted that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of two sets of magnets to detachably couple a module seat and a therapy module “like pieces of a puzzle” to obtain the expected benefit of providing a secure, but easily detachable electronic connection. See *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the module seat and

therapy module of Lee to each have a set of magnets that are magnetically attracted together, a first securement recess, a second securement protrusion, and to have the electrical contacts between the modules as taught by Lin because this will allow the cleansing attachment to be securely, but easily detachable so that it can be exchanged with other assemblies to meet the needs of different users (see lines 10-15 of [0010] of Lin).

The modified Lee/Lin device is silent regarding the module seat including a first securement protrusion extending therefrom; and the therapy module including a second securement recess defined therein, wherein the first securement protrusion is received in the second securement recess.

Tammabattula teaches a related skincare device (Fig. 1) with a module seat (top-surface 4305, Fig. 43) including a first securement protrusion extending therefrom (connector 4301, Fig. 43; removably coupled to a complementary connector 301, Fig. 44; see lines 4-10 of [0269] and note that connector 301 is a female connection, see the penultimate sentence of [0176]); and a therapy module (skincare device 3600, Fig. 40) including a second securement recess defined therein (connector 301, Fig. 44; this can be a female connection and thus have a recess defined therein, see the penultimate sentence of [0176]), wherein the first securement protrusion (4301, Fig. 43) is received in the second securement recess (301, Fig. 44; see lines 4-10 of [0269]). This allows the module seat and therapy module connection to transmit electrical power and communicate data between the removable parts (see the last eighteen lines of [0269]).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the first and second

connection terminals (113, 131, Fig. 1 of Lin) of Lee/Lin to be replaced with a male first securement protrusion and a female second securement recess as taught by Tammabattula because this is a simple substitution of one known electrical connection coupling for another known electrical connection coupling, and would provide an expected result of allowing electrical power and data to be transmitted between the separable modules upon connection.

Regarding claim 9, the modified Lee/Lin/Tammabattula device discloses wherein one of the first securement protrusion and the second securement recess includes female electrical contacts (second securement recess 301, Fig. 44 includes female electrical contacts, see the penultimate sentence of [0176] of Tammabattula) and the other of the first securement protrusion and second securement recess includes male electrical contacts (first securement protrusion 4301 shown to include male electrical contacts in Fig. 43, and is stated to complementary couple with 301, a female electrical connector, see lines 4-10 of [0269] of Tammabattula), and wherein connection of the male electrical contacts (4301) and female electrical contacts (301) provides electrical communication between the electrical source and the therapy module (see lines 29-33 of [0017] of Lin, and the last eighteen lines of [0269] of Tammabattula).

Regarding claim 10, the modified Lee/Lin/Tammabattula device discloses wherein the therapy module (light emitting unit 20, Fig. 2 of Lee) provides at least one of cold therapy, heat therapy, LED light therapy, microcurrent therapy, photobiomodulation therapy, radio frequency therapy, cleansing therapy or ultrasound therapy (light emitting unit 20 has an “LED module 22” that provides LED light therapy).

Regarding claim 11, the modified Lee/Lin/Tammabattula device discloses a motor positioned in the housing (“the body 12 has a cylindrical structure, and vibration generating and transmitting parts such as a motor...” see the penultimate paragraph on page 2 of the translated Lee document), a switch for activating the motor (button 13, Fig. 3 of Lee; see the penultimate paragraph on page 2 of the translated Lee document), and a push rod assembly operatively connected to the motor (spring, diaphragm, and shaft to transmit the vibration of vibrating unit 14, see Fig. 2 of Lee and the penultimate paragraph of page 2 of the translated Lee document. Also see lines 8-12 of page 3 of the translated Lee document, the shaft will be providing “a tapping or massage ... a patting member” to the user’s skin and thus reads on a push rod assembly), wherein the push rod assembly includes an attachment member (portion labeled 14 in Fig. 2 of Lee) that defines the distal end of the push rod assembly, wherein the therapy module (20) includes a central opening defined therein (see Fig. 2 of Lee), and wherein the attachment member (14) extends into the central opening (the attachment member extends through the central opening to connect to contact portion 30, Fig. 2 of Lee).

Regarding claim 12, the modified Lee/Lin/Tammabattula device discloses wherein the male electrical contacts (4301, Fig. 43 of Tammabattula) include four prongs (see Fig. 43 of Tammabattula, there are at least four prongs), and discloses that the connection provides both electrical communication and data communication (see the last eighteen lines of [0269] of Tammabattula), but does not specifically state that two of the prongs provide electrical communication and two of the prongs provide data communication.

However, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the four prongs of the male electrical contacts of Lee/Lin/Tammabattula to have two prongs for electrical communication and two prongs for data communication, since it has been held that where the general conditions of a claim are disclosed in the prior art (transmitting electrical communication and data communication via male/female electrical connection with at least four prongs taught by Tammabattula), discovering the optimum or workable ranges (two prongs for electrical communication, two prongs for data communication) involves only routine skill in the art. *In re Aller*, 105 USPQ 233. MPEP 2144.05.

16. Claim 13 is rejected under 35 U.S.C. 103 as being unpatentable over Mabuchi (4,088,128) (“Mabuchi ‘128”) in view of Kang et al. (2016/0192814).

Regarding claim 13, Mabuchi ‘128 discloses a vibration therapy device (Fig. 1, Fig. 5) comprising: a housing (body 1, Fig. 1) that includes a handle portion (handle 2, Fig. 1) and a head portion (space guide 6, Fig. 1), an electrical source (battery device housed in control box 18 and lead wire 16, Fig. 5; see col. 3, lines 30-32), a motor (motor 15, Fig. 1) positioned in the housing (1, Fig. 1), a switch for activating the motor (switch 19, Fig. 5; see col. 3, lines 30-32), a push rod assembly (rotating disc 10, motor output shaft 12, U-shaped frame 3, cushion ring 4, actuating member 5, Fig. 2) operatively connected to the motor (via motor output shaft 12, Fig. 2; see col. 2, lines 50-60 and col. 3, lines 14-18), wherein the push rod assembly includes a reciprocating shaft (actuating member 5, Fig. 1; see col. 3, lines 14-18), wherein an attachment member (plate member 7, Fig. 1) is secured to a distal end of the reciprocating shaft (5, see Fig. 1).

Mabuchi '128 is silent regarding a flexible sleeve that includes a proximal end and a distal end, wherein the flexible sleeve at least partially surrounds the reciprocating shaft, wherein the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing.

Kang teaches a related vibratory device (Fig. 1) that includes a flexible sleeve (first sealing member 52, Fig. 4) that includes a proximal end (upper portion of sealing plate 52a adjacent boss 18, Fig. 7) and a distal end (lower portion of sealing hole 52b, adjacent plate 44, Fig. 7), wherein the flexible sleeve (52) at least partially surrounds a reciprocating shaft (center shaft 34, Fig. 7), wherein the distal end (lower portion of 52b, Fig. 7) of the flexible sleeve (52) is secured to the reciprocating shaft (34, Fig. 7) and the proximal end (upper portion of 52a, Fig. 7) is secured to part of the housing (via support boss 18 attached to case member 14a, Fig. 6). The flexible sleeve (52) helps to prevent water from penetrating through the housing (14) and shaft area (see the first sentence of [0075]) to prevent water from damaging internal components even if the user mistakenly soaks the device (see the last two sentences of [0075]). Furthermore, it is noted that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of a flexible sleeve together with the attachment member and housing of Mabuchi '128, “like pieces of a puzzle” to obtain the expected benefit of protecting the internal parts from being damaged by water. See *KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the reciprocating shaft, attachment member, and housing of Mabuchi '128 to include a flexible sleeve that at

least partially surrounds the reciprocating shaft, the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing, as generally taught by Kang so that the internal components of the device are protected from being accidentally damaged by water.

17. Claims 14-16 are rejected under 35 U.S.C. 103 as being unpatentable over Mabuchi (4,088,128) (“Mabuchi ‘128”) in view of Kang et al. (2016/0192814) as applied to claim 13 above, and further in view of Mabuchi (4,513,737).

Regarding claim 14, the modified Mabuchi ‘128/Kang device as currently combined is silent regarding the reciprocating shaft includes an opening in a distal end thereof, wherein the attachment member includes shaft that is received in the opening in the reciprocating shaft, wherein the distal end of the flexible sleeve is secured between the distal end of the reciprocating shaft and the attachment member.

Mabuchi teaches a related reciprocating device (Fig. 1) with a reciprocating shaft (14, Fig. 18) that includes an opening in a distal end thereof (an opening configured to receive magnet 43 and rod 4, Figs. 18-19), and an attachment member (14, 4, Figs. 18-19) includes a shaft (rod 4, Figs. 18-19) that is received in the opening in the reciprocating shaft (see Fig. 18, shaft 4 passes through the opening in shaft 14). This reciprocating shaft and attachment member are part of an advantageous magnetic coupling device (magnets 43, 44, Figs. 18-19 are able to easily remove and connect different attachments, see col. 8, lines 11-15 and col. 8, lines 33-43).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the reciprocating shaft and attachment member of Mabuchi ‘128/Kang to use the reciprocating shaft with an

opening in the distal end and attachment member with a shaft receives in the opening in the reciprocating shaft as taught by Mabuchi because the magnetic coupling device is advantageously easy to change different patting attachments (see col. 8, lines 33-43 of Mabuchi).

The modified device does not specifically state wherein the distal end of the flexible sleeve (52, Kang) is secured between the distal end of the reciprocating shaft (14, Fig. 18 of Mabuchi) and the attachment member (14, 4, Figs. 18-19 of Mabuchi). However, it is reiterated that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of a flexible sleeve together with the attachment member and reciprocating shaft of Mabuchi ‘128/Kang/Mabuchi, “like pieces of a puzzle” to obtain the expected benefit of protecting the internal parts from being damaged by water. See *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Furthermore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the location of the flexible sleeve of Mabuchi ‘128/Kang/Mabuchi to have the distal end secured by being pressed between the distal end of the reciprocating shaft and the attachment member, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70. MPEP 2144.04.

Regarding claim 15, the modified Mabuchi ‘128/Kang/Mabuchi device discloses wherein the housing includes a protrusive portion (space guide 6 is a protrusive portion because it protrudes outwardly from the rest of the housing, Fig. 1 of Mabuchi ‘128), wherein the proximal end of the flexible sleeve (52, Kang) is secured by the protrusive

portion (in the modified device, the proximal end of the sleeve 52 of Kang is secured to the housing at the distal end of the reciprocating shaft, which would be at the protrusive portion).

Regarding claim 16, the modified Mabuchi '128/Kang/Mabuchi device discloses wherein the sleeve (52, Kang) includes an annular ridge (upward extending portion 52C, Fig. 7 of Kang) extending therefrom that is received in a groove (groove formed by guide sleeve 15 and support boss 18, Fig. 7 of Kang. In the modified device, the portion 52c would similarly connect to a groove in the housing of Mabuchi '128 to be attached) in the housing (the entire sleeve 52 is inside the housing, and would also be in the housing in the modified device).

18. Claims 17-18 are rejected under 35 U.S.C. 103 as being unpatentable over Sakai et al. (2008/0234611) in view of Mabuchi (4,513,737) and Lin (2015/0045702).

Regarding claim 17, Sakai discloses a vibration therapy device (Fig. 1) comprising: a housing (main body 2, Fig. 1) that includes a handle portion (upper half of body 2, with switch 19, Fig. 1; enables holding by one hand, see the first sentence of [0029]), a head portion (lower half of body 2, Fig. 1) and a module seat (bottom of frame 8 including plate 9 and cover 11, Fig. 3) defined on the head portion (on the lower-most portion of the body 2, at bottom 2B, see Fig. 3), an electrical source (battery 18, Fig. 1), a motor (motor 13, Fig. 1) positioned in the housing (2, Fig. 1), a switch (switch 19, Fig. 1) for activating the motor (see the last sentence of [0029]), a push rod assembly (reduction gear mechanism 14, crank mechanism 15, connecting rod 16, connection member 17, Fig. 1) operatively connected (via motor shaft 13A connected to reduction gear mechanism 14, Fig. 1) to the motor (13, Fig. 1), wherein the push rod assembly

(14, 15, 16, 17, Fig. 1) includes an attachment member (connection intermediary member 17, Fig. 1) at a distal end thereof (17 is distal to the remainder of the push rod assembly) that is configured to reciprocate in response to activation of the motor (“rotary movement of the motor 13 is converted into reciprocating movement by the crank mechanism 15 and the connecting rod 16, so that the connection intermediary member 17 reciprocates up and down” see lines 33-37 of [0029]), a cleansing attachment (treating section 3, Fig. 3. This is a “cleansing” attachment because it is part of a hair and scalp washing device, see the first sentence of [0001]) removably received on the attachment member (17; see lines 25-33 of [0029], the hook 17A of member 17 is detachably connected to a hook receiving portion 4B in the upper surface of the central portion of the base portion 4, see Fig. 3), wherein the cleansing attachment (3) includes a central section (the central section of base portion 4 inside ring of protrusions 7, Figs. 3-5), wherein when the attachment member (17) reciprocates (as in Figs. 4-5), the central section flexes (see Figs. 4-5, the central section of flexible base portion 4 flexes from a convex shape in Fig. 4 to a concave shape in Fig. 5; see also lines 9-13 of [0041]).

Sakai is silent regarding wherein the module seat includes a first set of magnets, the attachment member includes a first magnet; wherein the cleansing attachment includes a second magnet that is magnetically attracted to the first magnet; wherein the cleansing attachment includes a second set of magnets that are magnetically attracted to the first set of magnets to removably secure the cleansing attachment to the module seat.

Mabuchi teaches a related reciprocating device (Fig. 1) with a reciprocating attachment member (4, 14, Fig. 18) that includes a first magnet (magnet 43, Figs. 18-19) and a treatment attachment (plate member 7, cushion member 8, padder body 9, flange 15, Fig. 18) includes a second magnet (magnet 44, Figs. 18-19) that is magnetically attracted to the first magnet (43) as part of an advantageous magnetic coupling device (magnets 43, 44, Figs. 18-19 are able to easily remove and connect different attachments, see col. 8, lines 11-15 and col. 8, lines 33-43).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the hooked connection member (17A) and hook receiving part (4B) of Sakai to be replaced with a pair of first and second magnets configured to couple together by a rod as taught by Mabuchi because this is a simple substitution of one known detachable connection for a reciprocating rod (hook-shaped connection 17A coupling with hook receiving part 4B in Sakai) for another known detachable connection for a reciprocating rod (magnets 43, 44, being coupled together by rotation as seen in Figs. 18-19 of Mabuchi) and would provide expected results of a magnetic coupling device that is advantageously easy to change different cleansing attachments (see col. 8, lines 33-43 of Mabuchi).

The modified Sakai/Mabuchi device is still silent regarding wherein the module seat includes a first set of magnets, and the cleansing attachment includes a second set of magnets that are magnetically attracted to the first set of magnets to removably secure the cleansing attachment to the module seat. However, the use of a set of magnets to provide a secure, detachable connection is well known in the art.

For example, Lin teaches a related cosmetic treatment device (Fig. 1) with a housing (holding unit 11, Fig. 1) that includes a handle portion (lower half of unit 11, Fig. 1), a head portion (upper half of unit 11, Fig. 1) and a module seat (notch 111, the annular rim above the notch, first magnetic attraction components 112, and first connection terminals 113 are considered the module seat, Fig. 1) defined on the head portion (upper half of unit 11, Fig. 1), wherein the module seat includes a first set of magnets (first magnetic attraction components 112, Fig. 1), and a therapy attachment (connection part 13, 15, 17, Fig. 1) includes a second set of magnets (magnetic attraction components 132, Fig. 1) that are magnetically attracted to the first set of magnets (112; see lines 20-29 of [0017]) to removably secure the attachment to the module seat (see lines 10-15 of [0010]). Furthermore, it is noted that “[a] person of ordinary skill is also a person of ordinary creativity, not an automaton,” and would be able to fit this teaching of two sets of magnets to detachably couple a module seat and an attachment into the module seat and cleansing attachment of Sakai/Mabuchi “like pieces of a puzzle” to obtain the expected benefit of providing a secure, but easily detachable connection. See *KSR Int’l. Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007).

Therefore, it would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to modify the periphery of the module seat and cleansing attachment of Sakai/Mabuchi to each have a set of magnets that are magnetically attracted together as taught by Lin because this will allow the cleansing attachment to be securely, but easily detachable so that it can be exchanged with other assemblies to meet the needs of different users (see lines 10-15 of [0010] of Lin).

Regarding claim 18, the modified Sakai/Mabuchi/Lin device discloses wherein the module seat (bottom of frame 8 including plate 9 and cover 11, Fig. 3 of Sakai) includes a first securement protrusion extending therefrom and includes a first securement recess defined therein (see the intersection of frame 8 and edge 4A in Fig. 4 of Sakai. The module seat has a first securement protrusion as the portion of 8 extends outwardly, and immediately above the protrusion of 8 is a first securement recess configured to receive protruding edge 4A of the cleansing attachment; see also the last sentence of [0028] describing this groove), wherein the cleansing attachment (3) includes a second securement protrusion (the protruding edge 4A, Fig. 4 of Sakai) extending therefrom and includes a second securement recess defined therein (see the intersection of frame 8 and edge 4A in Fig. 4 of Sakai. The cleansing attachment has a second securement protrusion from protruding edge 4A, and immediately below the protrusion 4A is a second securement recess configured to receive protruding frame 8), wherein the first securement protrusion is received in the second securement recess, and wherein the second securement protrusion is received in the first securement recess (see the last sentence of [0028], the first securement protrusion 8 is received in the second securement recess immediately below protrusion 4A. The second securement protrusion 4A is received in the first securement recess immediately above the protrusion of 8).

Allowable Subject Matter

19. Claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Double Patenting

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/process/file/efs/guidance/eTD-info-I.jsp.

20. Claims 1-4 and 7 are rejected on the ground of nonstatutory double patenting as being unpatentable over claim 1 of U.S. Patent No. 11,331,244 in view of Mabuchi (4,513,737), Mabuchi (4,088,128) (“Mabuchi ‘128”) and Fuhr (2014/0031866).

Claim 1 of U.S. Patent No. 11,331,244 discloses all of the features of claims 1-4 and 7 except for the reciprocation having a linear velocity between 0.06 m/s and 0.5 m/s, wherein the attachment member includes a first magnet, and a reciprocating attachment including a second magnet that is magnetically attracted to the first magnet to secure the reciprocating attachment on the attachment member. However, as demonstrated in the claim 1 rejection under 35. U.S.C. 103 above, the missing limitations are taught in the art and provide expected benefits. The magnetic connection taught by Mabuchi provides an advantageous and easy to operate coupling mechanism to allow a user to change the reciprocating attachment, and Mabuchi ‘128 and Fuhr disclose that the speed should be variable according to a user’s preference, and that

speeds such as 0.44 m/s are appropriate for reciprocating therapy. See the 103 rejection(s) above.

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee (2014/0371637) discloses a related vibration therapy device with male electrical contacts that connect with female electrical contacts. Danby et al. (2015/0005682) discloses a related reciprocating massage device with a plurality of speed settings and a pair of magnets that detachable couple a reciprocating attachment. Yang (2020/0390644) discloses a related reciprocating massage device with a plurality of speed settings. Chen (2018/0050440) discloses a related magnetic detachable mechanism. Woodard et al. (2016/0287034) discloses a related skin cleansing and massaging device with magnets to releasably couple the brush assembly. Tucek et al. (2002/0082536) discloses a related reciprocating massage device with a speed adjustment knob. Pardoel et al. (2015/0202114) discloses a related skin massaging device with a water tight seal between the shaft and the housing. Sakai et al. (2009/0182249) discloses a related reciprocating massage device with a cleansing attachment. Nuzzo et al. (2014/0096786) discloses a related reciprocating massage device with a cleansing attachment.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER E MILLER whose telephone number is (571)270-1473. The examiner can normally be reached Mon- - Fri 9:30-5:30.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an

interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at <http://www.uspto.gov/interviewpractice>.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CHRISTOPHER E MILLER/
Examiner, Art Unit 3785

/JUSTINE R YU/
Supervisory Patent Examiner, Art Unit 3785



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/705,300	03/26/2022	Jason Wersland	76840-5199

CONFIRMATION NO. 2416

PUBLICATION NOTICE



OC000000134993762

24574

JEFFER, MANGELS, BUTLER & MITCHELL, LLP
1900 AVENUE OF THE STARS, 7TH FLOOR
LOS ANGELES, CA 90067

Title:VIBRATING THERAPY SYSTEM AND DEVICE

Publication No.US-2022-0211575-A1

Publication Date:07/07/2022

NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

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Electronic Acknowledgement Receipt

EFS ID:	46259838
Application Number:	17705300
International Application Number:	
Confirmation Number:	2416
Title of Invention:	VIBRATING THERAPY SYSTEM AND DEVICE
First Named Inventor/Applicant Name:	Jason Wersland
Customer Number:	24574
Filer:	Richard Daniel Collier III/Grace Perkins
Filer Authorized By:	Richard Daniel Collier III
Attorney Docket Number:	76840-5199
Receipt Date:	25-JUL-2022
Filing Date:	26-MAR-2022
Time Stamp:	14:35:43
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Power of Attorney	POA-5015-0690006.PDF	1675147	no	2
			e408bfd7014ad55e4ecec1d13239495cde0746553		

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Application Number	17/705,300
Filing Date	03/26/2022
First Named Inventor	Jason WERSLAND
Title	VIBRATING THERAPY SYSTEM AND DEVICE
Art Unit	3785
Examiner Name	MILLER, CHRISTOPHER E.
Attorney Docket Number	5015.0690006

SIGNATURE of Applicant or Patent Practitioner

Signature	/Richard D. Coller III/	Date (Optional)	July 25, 2022
Name	Richard D. Coller III	Registration Number	60,390
Title (if Applicant is a juristic entity)	Attorney for Applicant		
Applicant Name (if Applicant is a juristic entity)	Therabody, Inc.		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.



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I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

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- OR
- ☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

- ☒ The address associated with the above-mentioned Customer Number
- OR
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Address				
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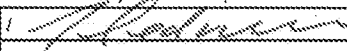
I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

Therabody, Inc.

- ☐ Inventor or Joint Inventor (title not required below)
- ☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)
- ☒ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)
- ☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	
Name	Jonathan Feldman		
Title	General Counsel & Secretary		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
17/705,300	03/26/2022	Jason Wersland	5015.0690006

186370
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.
(Therabody)
1100 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

CONFIRMATION NO. 2416
POA ACCEPTANCE LETTER



Date Mailed: 07/27/2022

NOTICE OF ACCEPTANCE OF POWER OF ATTORNEY

This is in response to the Power of Attorney filed 07/25/2022.

The Power of Attorney in this application is accepted. Correspondence in this application will be mailed to the above address as provided by 37 CFR 1.33.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at (571) 272-4000 or (571) 272-4200 or 1-888-786-0101.

/ngfissha/

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 17/705,300	Filing Date 03/26/2022	☐ To be Mailed
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ENTITY: ☒ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE (\$)	FEE (\$)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 = *		x \$100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		x \$480 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED - PART II

	(Column 1)		(Column 2)	(Column 3)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	09/16/2022		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$100 = 0
	Independent (37 CFR 1.16(h))	* 4	Minus	*** 4	= 0	x \$480 = 0
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
TOTAL ADD'L FEE						0
AMENDMENT			CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
TOTAL ADD'L FEE						
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/FREDERICK E BRISCOE/
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The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.						

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TRANSMITTAL FORM (to be used for all correspondence after initial filing)	Application Number	17/705,300
	Filing Date	03/26/2022
	First Named Inventor	Jason WERSLAND
	Art Unit	3785
	Examiner Name	Christopher E. MILLER
Total Number of Pages in This Submission	Attorney Docket Number	5015.0690006

ENCLOSURES (Check all that apply)		
☐ Fee Transmittal Form	☐ Drawing(s)	☐ After Allowance Communication to TC
☐ Fee Attached	☐ Licensing-related Papers	☐ Appeal Communication to Board of Appeals and Interferences
☒ Amendment/Reply	☐ Petition	☐ Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)
☐ After Final	☐ Petition to Convert to a Provisional Application	☐ Proprietary Information
☐ Affidavits/declaration(s)	☐ Power of Attorney, Revocation Change of Correspondence Address	☐ Status Letter
☐ Extension of Time Request	☐ Terminal Disclaimer	☐ Other Enclosure(s) (please identify below):
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Sterne, Kessler, Goldstein & Fox P.L.L.C.		
Signature	/Dohm Chankong/		
Printed name	Dohm Chankong		
Date	September 16, 2022	Reg. No.	70,524

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Electronic Acknowledgement Receipt

EFS ID:	46636095
Application Number:	17705300
International Application Number:	
Confirmation Number:	2416
Title of Invention:	VIBRATING THERAPY SYSTEM AND DEVICE
First Named Inventor/Applicant Name:	Jason Wersland
Customer Number:	186370
Filer:	Dohm Chankong/Renee Bennett
Filer Authorized By:	Dohm Chankong
Attorney Docket Number:	5015.0690006
Receipt Date:	16-SEP-2022
Filing Date:	26-MAR-2022
Time Stamp:	16:23:57
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	2022-09-16-Transmittal-Form-5015-0690006.PDF	304144	no	1
			fc1e1152171d3505bc280fa20bff2ec0944c8b1a		

Warnings:

Information:					
2		2022-09-16-Amendment-Reply-111-5015-0690006.pdf	263640	yes	17
			5221d0006bd79760cefbdcb607b3689977d5f5ba		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Amendment/Request for Reconsideration-After Non-Final Rejection		1	1	
	Claims		2	8	
	Applicant Arguments/Remarks Made in an Amendment		9	17	
Warnings:					
Information:					
Total Files Size (in bytes):			567784		
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Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1–10 and 12–21 are pending in the application. Claims 1, 8, 13, and 17 are the independent claims. Claims 1–10 and 12–18 are amended. Claim 11 is canceled without prejudice or disclaimer. New claims 19–21 are added. These changes introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicant respectfully requests that the Office reconsider and withdraw all outstanding objections and rejections.

Allowable Subject Matter

Applicant thanks the Office for indicating that claim 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre-AIA), 2nd paragraph, set forth in this Office Action and to include all of the limitations of the base claim and any intervening claims. Office Action, 32.

Claim Interpretation

Applicant notes that the Office has opined on whether certain claim terms invoke 35 U.S.C. § 112(f), or 35 U.S.C. § 112 (pre-AIA), sixth paragraph. *See Id.*, 2–5. Applicant takes no position on whether or not this section should apply, at least because whether or not it applies does not change the allowability of the claims.

Objections to the Claims

Claims 6, 14, and 15 are objected to because of informalities. *See Id.*, 5.

Claims 6, 14, and 15 are amended as suggested in the Office Action. Accordingly, Applicant respectfully requests that the objections of claims 6, 14, and 15 be withdrawn.

Rejections under 35 U.S.C. § 112

Claims 3, 4, 17, and 18 are rejected under 35 U.S.C. § 112(b) or 35 U.S.C. § 112 (pre-AIA), second paragraph, as allegedly being indefinite. *See Id.*, 5–6.

Claims 3 and 17 are amended to correct the antecedent basis issues. Accordingly, Applicant respectfully requests that the rejections of claims 3, 4, 17, and 18 be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 1, 2, and 7 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over U.S. Patent No. 4,513,737 to Mabuchi (“Mabuchi”) in view of U.S. Patent No. 4,088,128 Mabuchi (“Mabuchi ’128”) and U.S. Patent Application Publication No. 2014/0031866 A1 to Fuhr (“Fuhr”).
Independent claim 1

I. The applied references do not teach or suggest a push rod assembly comprising the claimed reciprocating shaft and the claimed attachment member.

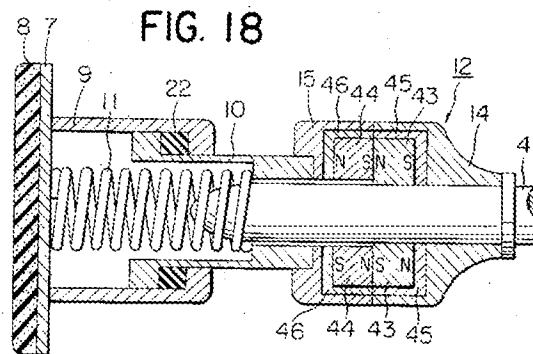
Without agreeing to the merits of the rejections and solely to expedite the prosecution, claim 1 is amended to recite:

a push rod assembly operatively connected to the motor, wherein the push rod assembly comprises:
a reciprocating shaft having a distal end; and
an attachment member *coupled to the distal end of the reciprocating shaft*, the attachment member comprising a first magnet.

The applied references, alone or in combination, fail to teach or suggest an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet.

The Office relies on Mabuchi for allegedly disclosing a push rod assembly. *See Id.*, 7. Mabuchi discloses a beauty treatment having a motor 20 and an actuator 4 caused to reciprocate by the motor 20. *See Mabuchi*, 2:39-52. While in one embodiment, Mabuchi discloses a magnet 43 for attaching a padder assembly 6, as shown in FIG. 18 below, magnet 43 is not coupled to a distal end of actuator 4. Instead, magnet 43 is a part of a coupling 14, and actuator 4 is press-fitted to coupling 14, with the distal end of actuator 4 *extending*

through coupling 14. *See Id.*, 6:9-11 and FIG. 18. Therefore, Mabuchi does not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet.



Mabuchi, FIG. 18.

In the rejection of claim 5, the Office relies on coupling 14 for allegedly corresponding to the claimed reciprocating shaft. *See Office Action*, 13. However, Mabuchi does not teach or suggest that coupling 14 is a reciprocating shaft configured to reciprocate in response to activation of a motor.

Moreover, it is not obvious to modify Mabuchi to move coupling 14 to the distal end of actuator 4. Mabuchi discloses that actuator 4 engages with resilient member 11 to cause the reciprocating motion of patten assembly 6. *See Mabuchi*, 2:53-3:12. If coupled 14 is at the distal end of actuator 4, the distal end of actuator 4 would not extend into patten assembly 6 and would not engage with resilient member 11, making pattern assembly 6 inoperable for its intended purposes. Accordingly, a person skilled in the art would not have been motivated to move coupling 14 to the distal end of actuator 4.

Mabuchi '128 and Fuhr both fail to cure the deficiency of Mabuchi in this respect, as they also do not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet.

II. A person skilled in art would not have been motivated to combine Mabuchi and Fuhr because the device of Fuhr is designed to treat different body areas and does not have an attachment magnetically secured to a reciprocating shaft.

Claim 1 also recites, “wherein the reciprocating shaft is configured to reciprocate in response to activation of the motor, such that the attachment member has a linear velocity between 0.06 m/s and 0.5 m/s.” The Office acknowledges that Mabuchi does not disclose a linear velocity between 0.06 m/s and 0.5 m/s, and instead relies on Fuhr for allegedly disclosing this feature. *See* Office Action, 9–10. However, a person skilled in the art would not have been motivated to combine the velocity disclosed in Fuhr with the device of Mabuchi.

Mabuchi discloses a beauty device that pats the skin with a padder. Mabuchi, 1:31-34. On the other hand, Fuhr discloses a chiropractic instrument for use in chiropractic adjustment of musculoskeletal structures. Fuhr, [0001]. A person skilled in the art would have understood that a device for treating the face requires different specifications than a chiropractic device for adjusting musculoskeletal structures, *see e.g.* Specification, [0041], and therefore would not have looked at Fuhr for linear velocity. Indeed, the velocity disclosed in Fuhr only reads on the upper values of the claimed range (i.e. 0.44 m/s to 0.5 m/s), and the highest velocity is more than twice the claimed range (i.e. 1.22 m/s), indicating that the device of Fuhr is not designed for treating the face. Fuhr, [0076].

Additionally, the present disclosure explains that the linear velocity is also optimized to ensure the magnetic securement of the attachment member during reciprocating movement. Specification, [0047]. Fuhr does not disclose an attachment member magnetically secured to a reciprocating shaft, and therefore a person skilled in the art would not have looked to Fuhr when designing the linear velocity of Mabuchi, which is a magnetically connected device.

Accordingly, claim 1 and dependent claims 2 and 7 are not obvious over the applied references. Applicant respectfully requests that the rejections of claims 1, 2, and 7 be withdrawn.

Claim 3 is rejected under 35 U.S.C. § 103 as allegedly unpatentable over Mabuchi in view of Mabuchi '128 and Fuhr as applied to claim 2 above, and further in view of KR 10-2020-0051098 to Lee *et al.* (“Lee”).

Claim 3 depends from claim 1 and are patentable based at least on its dependency and for its separately recited features. Lee also fails to disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet, and thus fail to cure the deficiencies of Mabuchi, Mabuchi '128, and Fuhr.

Accordingly, claim 3 is not obvious over the applied references. Applicant respectfully requests that the rejection of claim 3 be withdrawn.

Claims 5 and 6 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Mabuchi in view of Mabuchi '128 and Fuhr as applied to claim 1 above, and further in view of U.S. Patent Application Publication No. 2016/0192814 A1 to Kang *et al.* ("Kang").

Claims 5 and 6 depend from claim 1 and are patentable based at least on their dependency and for their separately recited features. Kang also fails to disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet, and thus fail to cure the deficiencies of Mabuchi, Mabuchi '128, and Fuhr.

Accordingly, claims 5 and 6 are not obvious over the applied references. Applicant respectfully requests that the rejections of claims 5 and 6 be withdrawn.

Claims 8–10 and 12 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over U.S. Patent Application Publication No. 2015/0045702 A1 to Lin ("Lin") in view of U.S. Patent Application Publication No. 2020/0154874 A1 to Tammabattula ("Tammabattula"). Claims 8–12 are also rejected under 35 U.S.C. § 103 as unpatentable over Lee in view of Lin and Tammabattula.

Independent claim 8

Without agreeing to the merits of the rejections and solely to expedite the prosecution, claim 8 is also amended to recite:

a push rod assembly operatively connected to the motor, wherein the push rod assembly comprises:
a reciprocating shaft having a distal end; and
an attachment member *coupled to the distal end of the reciprocating shaft*, the attachment member comprising a *magnet*.

Applicant respectfully submits that Lee, Lin, and Tammabattula, alone or in combination, do not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a magnet.

Accordingly, claim 8 and dependent claims 9, 10, and 12 are not obvious over the applied references. Applicant respectfully requests that the rejections of claims 8–10 and 12 be withdrawn.

Claim 13 is rejected under 35 U.S.C. § 103 as allegedly unpatentable over Mabuchi '128 in view of U.S. Patent Application Publication No. 2016/0192814 A1 to Kang *et al.* ("Kang").

Independent claim 13

Without agreeing to the merits of the rejections and solely to expedite the prosecution, claim 13 is also amended to recite:

a push rod assembly operatively connected to the motor, wherein the push rod assembly comprises:
a reciprocating shaft having a distal end; and
an attachment member *coupled to the distal end of the reciprocating shaft*, the attachment member comprising a *magnet*.

Applicant respectfully submits that Mabuchi '128 and Kang, alone or in combination, do not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a magnet.

Accordingly, claim 13 is not obvious over the applied references. Applicant respectfully requests that the rejection of claim 13 be withdrawn.

Claims 14–16 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over Mabuchi '128 in view of Kang as applied to claim 13 above, and further in view of Mabuchi.

Claims 14–16 depend from claim 13 and are patentable based at least on their dependency and for their separately recited features. As discussed above, Mabuchi fails to disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a magnet, and thus fail to cure the deficiencies of Mabuchi '128 and Kang.

Accordingly, claims 14–16 are not obvious over the applied references. Applicant respectfully requests that the rejections of claims 14–16 be withdrawn.

Claims 17 and 18 are rejected under 35 U.S.C. § 103 as allegedly unpatentable over U.S. Patent Application Publication No. 2008/0234611 A1 to Sakai *et al.* (“Sakai”) in view of Mabuchi and Lin.

Independent claim 17

Without agreeing to the merits of the rejections and solely to expedite the prosecution, claim 13 is also amended to recite:

a push rod assembly operatively connected to the motor, wherein the push rod assembly comprises:
a reciprocating shaft having a distal end; and
an attachment member *coupled to the distal end of the reciprocating shaft*, the attachment member comprising a first magnet.

Applicant respectfully submits that Sakai does not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet. And as discussed above, Mabuchi fails to disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment member comprising a first magnet, thus fail to cure the deficiencies of Sakai.

Accordingly, claim 17 and dependent claim 18 are not obvious over the applied references. Applicant respectfully requests that the rejections of claims 17 and 18 be withdrawn.

Double Patenting Rejections

Claims 1–4 and 7 are rejected on the ground of nonstatutory double patenting as allegedly unpatentable over claim 1 of U.S. Patent No. 11,331,244 in view of Mabuchi, Mabuchi ’128 and Fuhr.

As discussed above, Mabuchi, Mabuchi ’128, and Fuhr, alone or in combination, do not disclose an attachment member coupled to a distal end of a reciprocating shaft, the attachment

member comprising a first magnet. Claim 1 of U.S. Patent No. 11,331,244 also fails to cure the deficiencies of Mabuchi, Mabuchi '128, and Fuhr.

Accordingly, applicant respectfully requests that the nonstatutory double patenting rejections of claims 1–4 and 7 be withdrawn.

New Claims

New claims 19 depends from claim 1, and therefore is patentable based at least on its dependency and for its separately recited features.

New claims 20 and 21 depend from claim 8, and therefore are patentable based at least on their dependency and for their separately recited features.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Office reconsider and withdraw all presently outstanding objections and rejections. A full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Office believes, for any reason, that personal communication will expedite prosecution of this application, the Office is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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/Dohm Chankong/

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Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A vibration therapy device₁ comprising:
 - a housing that includes a handle portion and a head portion[[,]];
 - an electrical source[[,]];
 - a motor positioned in the housing[[,]];
 - a switch for activating the motor[[,]];
 - a push rod assembly operatively connected to the motor, wherein the push rod assembly ~~includes~~ comprises:
 - a reciprocating shaft having a distal end; and
 - an attachment member coupled to the distal end of the reciprocating shaft, the attachment member comprising a first magnet,
 - wherein the reciprocating shaft is configured to reciprocate in response to activation of the motor, such that the attachment member has a linear velocity between 0.06 m/s and 0.5 m/s; and
 - ~~an attachment member that defines the distal end of the push rod assembly, wherein the attachment member is configured to reciprocate in response to activation of the motor at a linear velocity between 0.06 m/s and 0.5 m/s, wherein the attachment member includes a first magnet,~~
 - a reciprocating attachment removably received on the attachment member, wherein the reciprocating attachment includes a second magnet that is magnetically attracted to the first magnet to secure the reciprocating attachment on the attachment member.
2. (Currently Amended) The vibration therapy device of claim 1₁ wherein the reciprocating attachment includes an attachment member recess defined therein,
 - wherein the attachment member is received in the attachment member recess,
 - wherein the attachment member defines an attachment member diameter and the attachment member recess defines an attachment member recess diameter,

wherein the attachment member diameter is smaller than the attachment member recess diameter, and

wherein the first and second magnets secure the reciprocating attachment on the attachment member during reciprocation.

3. (Currently Amended) The vibration therapy device of claim 2, ~~wherein a module seat is defined on the head portion~~ comprises a module seat,
 wherein the vibration therapy device further comprises a ring module ~~is removably secured to the module seat,~~
 wherein the ring module includes a central opening that defines a central opening diameter,
 wherein the reciprocating attachment ~~member~~ defines a reciprocating attachment diameter, and
 wherein the central opening diameter is larger than the reciprocating attachment diameter, such that the reciprocating attachment is configured to reciprocate within and relative to the ring module.
4. (Currently Amended) The vibration therapy device of claim 3, wherein the ring module is in electrical communication with the electrical source,
 wherein the module seat includes a first electrical connector, and
 wherein the ring module includes a second electrical connector in electrical communication with the first electrical connector.
5. (Currently Amended) The vibration therapy device of claim 1, further comprising a flexible sleeve that includes a proximal end and a distal end, ~~wherein the push rod assembly includes a reciprocating shaft,~~
 wherein the flexible sleeve at least partially surrounds the reciprocating shaft, and
 wherein the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing.

6. (Currently Amended) The vibration therapy device of claim 5, wherein the reciprocating shaft includes an opening in ~~[[a]]~~the distal end thereof,
wherein the attachment member includes a shaft that is received in the opening in the reciprocating shaft, and
wherein the distal end of the flexible sleeve is secured between the distal end of the reciprocating shaft and the attachment member.
7. (Currently Amended) The vibration therapy device of claim 1, wherein the ~~attachment member~~
~~member~~reciprocating shaft is configured to reciprocate in response to activation of the motor ~~at~~ such that the attachment member has a linear velocity between 0.11 m/s and 0.4 m/s.
8. (Currently Amended) A therapy device, comprising:
a housing that includes a handle portion, a head portion, and a module seat defined on the head portion, wherein the module seat includes a first set of magnets, and wherein the module seat includes a first securement protrusion extending therefrom and includes a first securement recess defined therein~~[[,]]~~;
an electrical source~~[[,]]~~;
a therapy module removably secured to the module seat,
wherein the therapy module includes a second set of magnets that are magnetically attracted to the first set of magnets,
wherein the therapy module includes a second securement protrusion extending therefrom and includes a second securement recess defined therein,
wherein the first securement protrusion is received in the second securement recess,
and
wherein the second securement protrusion is received in the first securement recess;
a motor positioned in the housing;
a switch for activating the motor; and

a push rod assembly operatively connected to the motor, wherein the push rod assembly comprises:

a reciprocating shaft having a distal end; and

an attachment member coupled to the distal end of the reciprocating shaft, the attachment member comprising a magnet,

wherein the therapy module includes a central opening defined therein, and wherein the attachment member extends into the central opening.

9. (Currently Amended) The therapy device of claim 8₁ wherein one of the first securement protrusion and the second securement recess includes female electrical contacts and the other of the first securement protrusion and second securement recess includes male electrical contacts, and wherein connection of the male electrical contacts and female electrical contacts provides electrical communication between the electrical source and the therapy module.
10. (Currently Amended) The therapy device of claim 9₁ wherein the therapy module provides at least one of cold therapy, heat therapy, LED light therapy, microcurrent therapy, photobiomodulation therapy, radio frequency therapy, cleansing therapy₁ or ultrasound therapy.
11. (Canceled)
12. (Currently Amended) The therapy device of claim 9₁ wherein the male electrical contacts include four prongs, and wherein two of the prongs provide electrical communication and two of the prongs provide data communication.
13. (Currently Amended) A vibration therapy device₁ comprising:
 - a housing that includes a handle portion and a head portion[[,]];
 - an electrical source[[,]];

a motor positioned in the housing[[,]];
a switch for activating the motor[[,]];
a push rod assembly operatively connected to the motor, wherein the push rod assembly ~~includes~~ comprises:
 a reciprocating shaft having a distal end; and
 an attachment member coupled to the distal end of the reciprocating shaft, the attachment member comprising a magnet; and
 ~~a reciprocating shaft, wherein an attachment member is secured to a distal end of the reciprocating shaft,~~
a flexible sleeve that includes a proximal end and a distal end, wherein the flexible sleeve at least partially surrounds the reciprocating shaft, wherein the distal end of the flexible sleeve is secured to the attachment member and the proximal end of the flexible sleeve is secured to the housing.

14. (Currently Amended) The vibration therapy device of claim 13, wherein the reciprocating shaft includes an opening in a distal end thereof,
 wherein the attachment member includes a shaft that is received in the opening in the reciprocating shaft, and
 wherein the distal end of the flexible sleeve is secured between the distal end of the reciprocating shaft and the attachment member.
15. (Currently Amended) The vibration therapy device of claim 14, wherein the housing includes a protrusive portion, and wherein the proximal end of the flexible sleeve is secured by the protrusive portion.
16. (Currently Amended) The vibration therapy device of claim 15, wherein the flexible sleeve includes an annular ridge extending therefrom that is received in a groove in the housing.
17. (Currently Amended) A vibration therapy device, comprising:

a housing that includes a handle portion, a head portion and a module seat defined on the head portion, wherein the module seat includes a first set of magnets[[,]];

an electrical source[[,]];

a motor positioned in the housing[[,]];

a switch for activating the motor[[,]];

a push rod assembly operatively connected to the motor, wherein the push rod assembly ~~includes~~ comprises:

a reciprocating shaft having a distal end; and

an attachment member coupled to the distal end of the reciprocating shaft, the

attachment member comprising a first magnet; and

~~an attachment member at a distal end thereof that is configured to reciprocate in response to activation of the motor, wherein the attachment member includes a first magnet,~~

a cleansing attachment removably received on the attachment member,

wherein the cleansing attachment includes a second magnet that is magnetically attracted to the first magnet to secure the ~~reciprocating~~ cleansing attachment on the attachment member,

wherein the cleansing attachment includes a second set of magnets that are magnetically attracted to the first set of magnets to removably secure the cleansing attachment to the module seat,

wherein the cleansing attachment includes a central section, and

wherein when the attachment member reciprocates, the central section flexes.

18. (Currently Amended) The vibration therapy device of claim 17, wherein the module seat includes a first securement protrusion extending therefrom and includes a first securement recess defined therein,

wherein the cleansing attachment includes a second securement protrusion extending therefrom and includes a second securement recess defined therein,

wherein the first securement protrusion is received in the second securement recess, and

wherein the second securement protrusion is received in the first securement recess.

19. (New) The vibration therapy device of claim 1, wherein the head portion comprises a module seat configured to removably receive a therapy module,
wherein the module seat surrounds the attachment member, and
wherein the module seat includes a set of magnets configured to removably secure the therapy module.
20. (New) The therapy device of claim 10, wherein the therapy module is configured to provide the cold therapy at a temperature range between about 65 degrees Fahrenheit to about 78 degrees Fahrenheit.
21. (New) The therapy device of claim 10, wherein the therapy module is configured to provide the heat therapy at a temperature range between about 95 degrees Fahrenheit to about 109 degrees Fahrenheit.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named Inventor: Jason WERSLAND

Applicant: Therabody, Inc.

Application No.: 17/705,300

Filed: March 26, 2022

Confirmation No.: 2416

Art Unit: 3785

Examiner: MILLER, Christopher E.

Atty. Docket: 5015.0690006

Title: **VIBRATING THERAPY SYSTEM AND DEVICE**

Amendment and Reply Under 37 C.F.R. § 1.111

Mail Stop Amendment

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Commissioner:

In reply to the Office Action dated June 16, 2022, Applicant submits the following Amendment and Remarks.

It is not believed that extensions of time are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any additional fees required to continue prosecution or appeal of this application (including issue fee, fees for net addition of claims, or forwarding to appeal) are hereby authorized to be charged to our Deposit Account No. 19-0036.

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	0	(17/361966).APP.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/19 03:10 PM
L2	80	jason.in. near2 wersland.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:10 PM
L3	75	benjamin.in. near2 nazarian.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L4	60	jaime.in. near2 solana.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L5	34	eduardo.in. near2 merino.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L6	29	bill.in. near2 webb.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L7	34	alex.in. near2 zhu.in.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L8	149	L2 L3 L4 L5 L6 L7	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:11 PM
L9	37	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$).did. or	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/19 03:13 PM

L10	94	(US-10714953-\$ or US-6965375-\$ or US-6245890-\$ or US-7425947-\$).did. theragun	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:14 PM
L11	73	L10 not L9	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 03:14 PM
L12	49	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$).did. or (US-10714953-\$ or US-6965375-\$ or US-6245890-\$ or US-7425947-\$ or US-10945915-\$ or US-10940081-\$ or US-10702448-\$ or US-10758452-\$ or US-10617588-\$ or US-10959911-\$ or US-	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/19 03:15 PM

L14	871	10470970-\$.did. a61h7/003.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:39 PM
L15	984	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:40 PM
L16	326	a61h15/0085.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:40 PM
L17	1662	a61h2201/0153.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:40 PM
L18	3444	L14 L15 L16 L17	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:40 PM
L19	624	L18 and (percuss\$4 reciprocat\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/19 08:41 PM
L20	871	a61h7/003.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L21	984	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L22	326	a61h15/0085.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L23	1662	a61h2201/0153.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L24	3444	L20 L21 L22 L23	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L25	655	L24 and (percuss\$4 hammer\$3 reciprocat\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:48 PM
L28	57	("10327981" "1545027" "1657765" "1660821" "20030009116" "20040254507" "20060155220" "20060282025" "20070270727" "20090306560" "20110224588" "20120067164" "20130261516" "20140358045" "20150005682" "20150150758" "20160367425" "20170042754" "20170304145" "20170326021" "20180200141" "20190175434" "2078159" "3169521" "3494353" "3993052" "4669452" "5117815" "5193528" "7125390" "7435232" "8372111" "9532918" "D222570" "D301617" "D373197"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:51 PM

L29	10	"D388175" "D407498" "D456909" "D484248" "D530020" "D627897" "D649657" "D657065" "D666734" "D698935" "D708755" "D818599" "D820466" "D826418").PN. OR ("10959908").URPN. ("10314762" "20150005 682" "20160367425" "2 0180200141" "2018026 3845" "20190015294" "2 0190136889" "624102 7" "6682496" "7273159").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 01:53 PM
L30	154	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:06 PM

		20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US-					
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		20020082536-\$.did. or (US-10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$.did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$.did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US-					
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L31	464	1339179-\$).did. a61h23/006.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:08 PM
L32	400	L31 not L30	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:08 PM
L33	28	("20050075591" "20050131461" "20090309313" "20140101872" "20160017905" "20160263732" "20160311091" "20170233063" "20180050440" "2179594" "2391671" "2475861" "3053559" "5103809" "6006631" "6245031" "7470081" "7740249" "8479616" "8695461" "8864143" "9744600" "9981366").PN. OR ("10428850").URPN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:10 PM
L34	183	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:15 PM

		20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US-					
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		20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US-					
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		6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$).did. or (US-3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$).did.					
L35	38	("20060100558" "20110 040235" "20110200381 "20160184173" "2016 0206087" "4655232" "2 0190117447" "2019013 3213" "20170189670" " 20180295980" "769520 7" "20140221880" "201 60183671" "4858600" " 20130281893" "200402 49322" "20110220634" " "20180352934" "36999 52" "20150182290" "20 090222072" "20140194 900" "20150333609" "2 0040024438" "2014027 6255" "20150297393" " 20160331106" "200702 06986" "20090163984" " "20160184162" "20040 186541" "20120150268 "1772501" "20040147	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:15 PM

L36	200	<p>984" "20130085556" "20140261380" "20160238040").PN.</p> <p>(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-20210283005-\$ or US-20190175434-\$ or US-20170304145-\$ or US-20170042754-\$ or US-20150005682-\$ or US-20130261516-\$ or US-20070270727-\$ or US-20060282025-\$ or US-20030009116-\$ or US-20210244609-\$ or US-20210228437-\$ or US-20210196563-\$ or US-20210196562-\$).did. or (US-20210161759-\$ or</p>	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/20 02:17 PM
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		US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US-20180031089-\$ or US-20170304144-\$ or US-20140031866-\$ or US-20170049278-\$ or US-20160184177-\$ or US-20160113840-\$ or US-20150265825-\$ or US-20150174387-\$ or US-20140188169-\$ or US-20090236359-\$ or US-20100137907-\$ or US-20030158505-\$ or US-20050222525-\$ or US-20050187498-\$ or US-20020082532-\$ or US-20020082536-\$ or US-20210259915-\$ or US-20210186800-\$ or US-20210177692-\$ or US-20200330321-\$ or US-20140194900-\$ or US-20210100718-\$ or US-20200390645-\$ or US-20190254922-\$ or US-20200222263-\$ or US-20160213558-\$ or US-20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or					
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		US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US-					
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		4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$).did.					
L37	6	((("20130060176") or ("20200086137") or ("20140378555") or ("20150305969") or ("20190254922") or ("20190155210")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/27 11:38 AM
L38	204	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/27 11:41 AM

		US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or					
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		US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or					
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		US-20130060176- \$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US-					
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L39	25	4858600-\$ or US-1772501-\$).did. or (US-3494353-\$ or US-3169521-\$ or US-2078159-\$ or US-1660821-\$ or US-1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$).did. ("20050075149" "20060058714" "20060253051" "20070123808" "20080119913" "20080243039" "20090177125" "20090312691" "20100049177" "20100121419" "20100210993" "20100292746" "20110098781" "20110106067" "20110184499" "6026828" "6443915" "7384405" "7748070").PN. OR ("10252051").URPN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 04:38 PM
L40	40	("2183726" "20090287195" "20120121309" "8375485" "20100069898" "20070260295" "20070206986" "20080172045" "20090234423" "20090088824" "5358503" "20110092863" "20090048557" "20110106067" "20100312314" "1228669" "20080154162" "20120209357" "20050207148" "20090048557" "20110040235" "20040000316" "20030009158" "20060287616" "20080014011" "6010264" "6911010" "7866840" "20050135867" "20090262516" "5363045" "7014639" "5176130" "5698866" "20060287696" "7896908" "20110091265" "20130144364" "6221095").P	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 08:25 PM

L41	62	N. ("20130046212" "20140114116" "20150150599" "20080214968" "20110143286" "20100081858" "20060253051" "2009005631" "20120209357" "20140128780" "20150045702" "5382222" "5632720" "6461377" "20040030370" "20060047330" "20090088824" "20100121419" "20110144410" "6746473" "20040106842" "20050131497" "20070179333" "20080172045" "7803104" "20070185553" "20140088337" "20070027411" "20110040235" "6979300" "20050015030" "20070073198" "20070073366" "20080262394" "20160158568" "20020115903" "20070083074" "8936542" "20040260210" "20100049177" "20110133872" "20140194668" "20090048557" "20090270779" "20090287195" "20140100410" "5782858" "20080246573" "20100179456" "6126589" "6123657" "20050070977" "20090234423" "20110106067" "8257242" "20050045189" "20110032960" "20130030506" "6001055" "6544164" "6558310" "9126034").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 08:41 PM
L42	338	a61h15/02.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:03 PM
L43	41681	a61h\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:42 PM
L44	1495	L43 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring annular circular head)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:43 PM
L45	676	L43 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:47 PM

L46	821	annular circular) L43 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring annular circular circle circumferen\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:47 PM
L47	663	a61n1/328.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:56 PM
L48	45	L47 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring annular circular circle circumferen\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/28 11:56 PM
L49	39	("10314762" "10357425" "10492984" "10561574" "10702448" "20060293711" "20090270915" "20140031866" "20150005682" "20150107383" "20150182415" "20160354277" "20180008512" "20180168913" "20180200141" "20180263845" "20190209424" "20190254921" "20200261307" "20200261310" "20200276079" "20200289365" "20200330321" "20200352820" "20200352821" "20200405574" "4088128" "4513737" "4549535" "4726430" "4790296" "4841955" "5656017" "6228042" "6616621" "6682496" "8826547" "9889066").PN. OR ("10993874").URPN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 12:09 AM
L50	319	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 12:12 AM

		US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or					
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		US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US-20180031089-\$ or US-20170304144-\$ or US-20140031866-\$ or US-20170049278-\$ or US-20160184177-\$ or US-20160113840-\$ or US-20150265825-\$ or US-20150174387-\$ or US-20140188169-\$ or US-20090236359-\$ or US-20100137907-\$ or US-20030158505-\$ or US-20050222525-\$ or US-20050187498-\$ or US-20020082532-\$ or US-20020082536-\$ or US-20210259915-\$ or US-20210186800-\$ or US-20210177692-\$ or US-20200330321-\$ or US-20140194900-\$ or US-20210100718-\$ or US-20200390645-\$ or US-20190254922-\$ or US-20200222263-\$ or US-20160213558-\$ or US-20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or					
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		US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US-20110184499-\$ or US-20110106067-\$ or US-20110098781-\$ or US-20100292746-\$ or US-20100210993-\$ or US-20100121419-\$ or US-20100049177-\$ or US-20090177125-\$ or US-20060058714-\$ or US-20080119913-\$ or US-20060253051-\$ or US-20050075149-\$ or US-20120209357-\$ or US-20120121309-\$ or US-20110092863-\$ or US-20110091265-\$ or US-20090287195-\$ or US-20090234423-\$ or US-20090088824-\$ or US-20090048557-\$ or US-20080172045-\$ or US-20080154162-\$ or US-20080014011-\$ or US-20160158568-\$ or US-20150150599-\$ or US-20150045702-\$ or US-20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or					
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		US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US-					
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		10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US-					
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		2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$).did.					
L51	3	((16/258283) or (14/758347)).APP.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/29 01:47 PM
L52	622	(US-20200237085-\$ or US-20150182290-\$ or US-20160192814-\$ or US-20150202114-\$ or US-20150182246-\$ or US-20130281894-\$ or US-20120109041-\$ or US-20100145242-\$ or US-20200038673-\$ or US-20180168318-\$ or US-20160184175-\$ or US-20160339219-\$ or US-20160339218-\$ or US-20160184177-\$ or US-20160184176-\$ or US-20150182078-\$ or US-20180360203-\$ or US-20180295980-\$ or US-20160184162-\$ or US-20200253811-\$ or US-20200085684-\$ or US-20150182415-\$ or US-20140194900-\$ or US-20190142691-\$ or US-20190060159-\$ or US-20180193219-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 01:50 PM

		\$.did. or (US- 20170172834-\$ or US- 20160058651-\$ or US- 20160331106-\$ or US- 20160074641-\$ or US- 20080306417-\$ or US- 20150297393-\$ or US- 20150305923-\$ or US- 20140276255-\$ or US- 20130085556-\$ or US- 20120165708-\$ or US- 20110040235-\$ or US- 20070179414-\$ or US- 20060211961-\$ or US- 20050107724-\$ or US- 20200315904-\$ or US- 20200222276-\$ or US- 20160213558-\$ or US- 20200170399-\$ or US- 20200154874-\$ or US- 20200038530-\$ or US- 20190191937-\$ or US- 20170332850-\$ or US- 20180361437-\$ or US- 20180140813-\$ or US- 20170367543-\$ or US- 20170367471-\$ or US- 20170360648-\$).did. or (US-20170238686-\$ or US-20170224098-\$ or US-20170172837-\$ or US-20170150851-\$ or US-20150360014-\$ or US-20160183743-\$ or US-20150305969-\$ or US-20140202493-\$ or US-20150224020-\$ or US-20150173998-\$ or US-20150164733-\$ or US-20150141884-\$ or US-20140330289-\$ or US-20140276281-\$ or US-20030165550-\$ or US-20060058714-\$ or US-20060135319-\$ or US-20040147984-\$ or US-20200093945-\$ or US-20190008718-\$ or US-20180185236-\$ or US-20180015299-\$ or US-20160331308-\$ or US-20170135894-\$ or US-20160113836-\$ or US-20160030279-\$ or US-20150272774-\$).did. or (US- 20150150745-\$ or US- 20150119771-\$ or US-					
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		20140221737-\$ or US- 20120065556-\$ or US- 20090163984-\$ or US- 20080014011-\$ or US- 20070206986-\$ or US- 20060155225-\$ or US- 20060129072-\$ or US- 20060100558-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20050059909-\$ or US- 20020072693-\$ or US- 20030149381-\$ or US- 20030125648-\$ or US- 20020169398-\$ or US- 20170056685-\$ or US- 20160120375-\$ or US- 20160045081-\$ or US- 20150359324-\$ or US- 20150189980-\$ or US- 20150165179-\$ or US- 20150150754-\$ or US- 20120136289-\$ or US- 20090198159-\$ or US- 20090048557-\$).did. or (US-20060122631-\$ or US-20040171970-\$ or US-20150173996-\$ or US-20100198119-\$ or US-20090177125-\$ or US-20050277950-\$ or US-20040015139-\$ or US-20190126061-\$ or US-20170367761-\$ or US-20170035649-\$ or US-20150265457-\$ or US-20140128780-\$ or US-20130197405-\$ or US-20120209363-\$ or US-20120209154-\$ or US-20110009783-\$ or US-20090088824-\$ or US-20050049526-\$ or US-20030009116-\$ or US-20090222072-\$ or US-20060258962-\$ or US-20030014096-\$ or US-20020086204-\$ or US-20130085421-\$ or US-20100274162-\$ or US-20090270779-\$ or US-20090043293-\$).did. or (US- 20040091663-\$ or US- 20030120185-\$ or US- 20030116452-\$ or US- 20130231594-\$ or US- 20130172792-\$ or US-					
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		20130012848-\$ or US- 20120265108-\$ or US- 20120172771-\$ or US- 20070287938-\$ or US- 20060235341-\$ or US- 20060060184-\$ or US- 20150057579-\$ or US- 20120265106-\$ or US- 20070129654-\$ or US- 20050085749-\$ or US- 20030100936-\$ or US- 20200100936-\$ or US- 20200069936-\$ or US- 20190290531-\$ or US- 20180214340-\$ or US- 20170189670-\$ or US- 20170181924-\$ or US- 20160074275-\$ or US- 20140309662-\$ or US- 20110270140-\$ or US- 20100087762-\$ or US- 20100056964-\$).did. or (US-20080195001-\$ or US-20070255187-\$ or US-20070239086-\$ or US-20070191745-\$ or US-20040249322-\$ or US-20040143199-\$ or US-20040087881-\$ or US-20040082983-\$ or US-20210045521-\$ or US-20200237604-\$ or US-20060175909-\$ or US-20200187635-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20170150810-\$ or US-20180098615-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20170194849-\$ or US-20170194848-\$ or US-20160183670-\$ or US-20160190902-\$ or US-20160183671-\$ or US-20160095413-\$ or US-20160037902-\$ or US-20150333609-\$ or US-20150174387-\$).did. or (US- 20150065927-\$ or US- 20140367131-\$ or US- 20140305458-\$ or US- 20140096786-\$ or US- 20140088522-\$ or US- 20080262397-\$ or US- 20200411161-\$ or US- 20200405047-\$ or US-					
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		20200352317-\$ or US- 20200323337-\$ or US- 20190101170-\$ or US- 20200093252-\$ or US- 20180169682-\$ or US- 20200037747-\$ or US- 20200037746-\$ or US- 20200037745-\$ or US- 20190298036-\$ or US- 20190098976-\$ or US- 20190098975-\$ or US- 20190098974-\$ or US- 20190029411-\$ or US- 20190001503-\$ or US- 20180288160-\$ or US- 20180280233-\$ or US- 20180279762-\$ or US- 20180242711-\$ or US- 20180092449-\$).did. or (US-20180042361-\$ or US-20170326020-\$ or US-20170189286-\$ or US-20170189227-\$ or US-20170188695-\$ or US-20170119144-\$ or US-20170014299-\$ or US-20160324373-\$ or US-20160206087-\$ or US-20160184171-\$ or US-20160015150-\$ or US-20150265825-\$ or US-20140366288-\$ or US-20080138138-\$ or US-20080255484-\$ or US-20080087296-\$ or US-20050020948-\$ or US-20190239631-\$ or US-20190014899-\$ or US-20190008332-\$ or US-20180361137-\$ or US-20160270821-\$ or US-20150257521-\$ or US-20170347789-\$ or US-20170119220-\$ or US-20170071321-\$ or US-20170042386-\$).did. or (US- 20160287034-\$ or US- 20160128461-\$ or US- 20150305487-\$ or US- 20150305486-\$ or US- 20150173842-\$ or US- 20140373003-\$ or US- 20140135665-\$ or US- 20130060176-\$ or US- 20130023901-\$ or US- 20120233798-\$ or US- 20120165710-\$ or US-					
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		20140087105-\$ or US- 20120079647-\$ or US- 20040024438-\$ or US- 20080168595-\$ or US- 20080140166-\$ or US- 20060064147-\$ or US- 20040186541-\$).did. or (US-10013875-\$ or US- 9386843-\$ or US- 2424699-\$ or US- 3699952-\$ or US- 9132058-\$ or US- 9032576-\$ or US- 7749178-\$ or US- 7384377-\$ or US- 5551949-\$ or US- 6730050-\$ or US- 6312397-\$ or US- 5072724-\$ or US- 9895285-\$ or US- 7481783-\$ or US- 6811539-\$ or US- 6511446-\$ or US- 5902256-\$ or US- 5462515-\$ or US- 5429585-\$ or US- 4884560-\$ or US- 4722326-\$ or US- 4702235-\$ or US- 4640284-\$ or US- 4604993-\$ or US- 4396011-\$ or US- 4291685-\$).did. or (US- 3710785-\$ or US- 1777151-\$ or US- 1844247-\$ or US- 2540792-\$ or US- 3467080-\$ or US- 3733634-\$ or US- 3775800-\$ or US- 3864779-\$ or US- 3968789-\$ or US- 4027348-\$ or US- 4397055-\$ or US- 4404965-\$ or US- 10722424-\$ or US- 10667985-\$ or US- 9642768-\$ or US- 9066844-\$ or US- 7644589-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4203431-\$ or US- 5423102-\$ or US- 5725483-\$ or US- 7695207-\$ or US- 7211057-\$ or US- 4526163-\$ or US-					
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		4724563-\$ or US- 4799280-\$).did. or (US- 4858600-\$ or US- 5353461-\$ or US- 5471695-\$ or US- 5687442-\$ or US- 5891063-\$ or US- 5956792-\$ or US- 5974615-\$ or US- 6032313-\$ or US- 6090085-\$ or US- 9138257-\$ or US- 7572238-\$ or US- 7469703-\$ or US- 7384405-\$ or US- 7157816-\$ or US- 5300095-\$ or US- 4691693-\$ or US- 4520799-\$ or US- 3503395-\$ or US- 2787998-\$ or US- 10307330-\$ or US- 9962284-\$ or US- 7147610-\$ or US- 6711750-\$ or US- 6567696-\$ or US- 6416534-\$ or US- 6409748-\$ or US- 6102875-\$).did. or (US- 5918590-\$ or US- 4685442-\$ or US- 1703811-\$ or US- 8777881-\$ or US- 4010742-\$ or US- 5725484-\$ or US- 5577997-\$ or US- 5176130-\$ or US- 4577625-\$ or US- 4427001-\$ or US- 4086922-\$ or US- 8372130-\$ or US- 5775344-\$ or US- 5327886-\$ or US- 4925743-\$ or US- 4559047-\$ or US- 3804077-\$ or US- 3298368-\$ or US- 2698617-\$ or US- 2385501-\$ or US- 1911027-\$ or US- 1714693-\$ or US- 10188549-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8921746-\$).did. or (US- 8882378-\$ or US- 8864401-\$ or US-					
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		8715210-\$ or US- 8620451-\$ or US- 7959369-\$ or US- 7322945-\$ or US- 7128722-\$ or US- 6648904-\$ or US- 5556468-\$ or US- 5690608-\$ or US- 5336159-\$ or US- 4920956-\$ or US- 4787373-\$ or US- 4655232-\$ or US- 4441487-\$ or US- 4087675-\$ or US- 8523791-\$ or US- 5989286-\$ or US- 5131383-\$ or US- 4944297-\$ or US- 4745909-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 2809630-\$ or US- 2638527-\$ or US- 1840981-\$ or US- 1634316-\$).did. or (US- 7465296-\$ or US- 7112178-\$ or US- 6499485-\$ or US- 5251620-\$ or US- 4681095-\$ or US- 10441496-\$ or US- 10098808-\$ or US- 9675516-\$ or US- 8226699-\$ or US- 6336907-\$ or US- 6013042-\$ or US- 8641702-\$ or US- 10314763-\$ or US- 8484788-\$ or US- 10849421-\$ or US- 9919437-\$ or US- 7386906-\$ or US- 9993059-\$ or US- 9763508-\$ or US- 8740917-\$ or US- 8469909-\$ or US- 5927289-\$ or US- 5218955-\$ or US- D864577-\$ or US- 10426692-\$ or US- 10058351-\$ or US- 10058168-\$).did. or (US-9596928-\$ or US- 9578998-\$ or US- D767897-\$ or US- 9351559-\$ or US- D715558-\$ or US- 10080428-\$ or US-					
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		9474358-\$ or US- 10856648-\$ or US- 10736413-\$ or US- 10681975-\$ or US- 10603799-\$ or US- 10588400-\$ or US- 10531729-\$ or US- 10518097-\$ or US- 10349731-\$ or US- 10194742-\$ or US- 10182642-\$ or US- 10021964-\$ or US- 9925113-\$ or US- 9801448-\$ or US- 9380860-\$ or US- 9301657-\$ or US- 9107486-\$ or US- 8966710-\$ or US- 6170108-\$ or US- 4476602-\$ or US- 4158246-\$).did. or (US- 6001070-\$ or US- 6758826-\$ or US- 9066778-\$ or US- 9883982-\$ or US- 5520617-\$ or US- 3610232-\$ or US- 2526190-\$ or US- 7244237-\$ or US- 6679857-\$ or US- 2709432-\$ or US- 2985166-\$ or US- 6074413-\$ or US- 5484366-\$ or US- 7077858-\$ or US- 4846176-\$ or US- 5618275-\$ or US- 5588161-\$ or US- 5163446-\$ or US- 5323778-\$ or US- 9029736-\$ or US- 6523354-\$ or US- 10470922-\$ or US- 9132031-\$ or US- 6017337-\$ or US- 6074414-\$ or US- 5800490-\$ or US- 4889970-\$).did. or (US- 3967627-\$).did. or (US- 3413973-\$ or US- 3382866-\$ or US- 3370583-\$ or US- 2795224-\$ or US- 2472385-\$ or US- 2424699-\$ or US- 2285105-\$ or US- 1844247-\$ or US- 1664009-\$ or US-					
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L53	663	a61n1/328.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 01:56 PM
L54	308	L53 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring annular circular circle circumferen\$4 treatment therapy)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 01:56 PM
L55	105	L52 and (led diode light laser infrared IR	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 01:56 PM

L56	15	phototherapy\$4 LLLT wavelength uv ultraviolet) with (ring annular circular circle circumferen\$4 treatment therapy) ("20130171083" "20120207532" "20120282199" "20150327653" "20170049212" "8734772" "8591133" "20110184334" "20120109041" "20130317416" "20150139924" "9456678" "20030180690" "20130131575" "20120024308").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:00 PM
L57	396	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:20 PM

		20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US-					
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		20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US-					
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		20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US-					
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		5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US-					
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		1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$.did.					
L58	21	("20080139981" "4669452" "5183034" "5899868" "20090210027" "5352188" "20070270727" "5063911" "5065743" "5356369" "7153282" "20030009116" "20140309565" "5103809" "20140163437" "0854983" "3710785" "6010467" "6267738" "20090240176").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:22 PM
L59	405	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:26 PM

		20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US-					
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		20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US-					
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		20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US-					
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		20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US-					
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		20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US-					
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		1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US-					
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		5131384-\$ or US-4326508-\$).did. or (US-4841955-\$ or US-4549535-\$ or US-6432036-\$ or US-9456678-\$ or US-10722424-\$ or US-9504826-\$ or US-9278230-\$ or US-9084587-\$ or US-8620451-\$ or US-2490074-\$ or US-5103809-\$ or US-3710785-\$).did. or (US-3494353-\$ or US-3169521-\$ or US-2078159-\$ or US-1660821-\$ or US-1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$).did.					
L60	29	(US-20110040235-\$ or US-20040147984-\$ or US-20090177125-\$ or US-20090088824-\$ or US-20090048557-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20200179220-\$ or US-20190262607-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20030163068-\$ or US-20190142691-\$ or US-20180360203-\$ or US-20140088668-\$ or US-20130131559-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200323337-\$ or US-20200253811-\$ or US-20180168318-\$ or US-20170056685-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150119771-\$).did. or (US-	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 03:26 PM

L61	2114	20140202493-\$.did. or (US-5176130-\$ or US-2490074-\$.did. a61h2201/10.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 03:26 PM
L62	2869	a61n5/0616.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 03:27 PM
L63	660	a61n1/328.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 03:27 PM
L64	5246	L61 L62 L63	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 03:27 PM
L65	1242	L64 and (led diode light laser infrared IR phototherapy\$4 LLLT wavelength uv ultraviolet light?emitting) with (ring annular circular circle circumferen\$4 detachab\$4 removab\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:28 PM
L67	1192	L65 not L59	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:28 PM
L68	1152	L67 not (@ad>="20200629")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:28 PM
L69	1097	L68 and (skin massag\$4 beauty)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:29 PM
L70	411	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:33 PM

		20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US-					
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		20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US-					
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		20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US-					
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		2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$).did.					
L71	64	L70 and (proximity distance skin) near4 (sens\$4 detect\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 03:34 PM
L72	53	("20040210277" "20060 030908" "20070185553 "20090240310" "5233 283" "5259380" "54207 68" "20070185553" "20 030167080" "20050149 150" "20050261750" "2 0070129778" "2007019 1822" "5783909" "6239 442" "D576284" "20050 055070" "20050283211 "20060265030" "2008 0052872" "6210426" "6	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 04:33 PM

		443978" "6875225" "20060184214" "5920075" "6063108" "6221095" "6283956" "7201765" "D575407" "20080140164" "20040244138" "20050228463" "20050234383" "20060212025" "20070032843" "20070231193" "20080103563" "20080140164" "6663659" "20060129209" "20060236496" "20060293727" "20070106347" "20070167999" "20080004611" "5500009" "5634711" "5728090" "RE40403" "20060009822" "4952369" "7014639" "20050065579" "3970856").PN.					
L73	50	("4232678" "4787373" "4930504" "5259380" "5551949" "5660836" "5755752" "6009876" "6019482" "6030374" "6053906" "6120497" "6149644" "6264652" "6283956" "6309387" "6312397" "6312450" "6398753" "6443915" "6569109" "6629971" "6663659" "6676655" "6702837").PN. OR ("7014639").URPN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/29 04:53 PM
L74	58	(US-20200085675-\$ or US-20210128402-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150265825-\$ or US-20150297393-\$ or US-20140276255-\$ or US-20180295980-\$ or US-20110040235-\$ or US-20100121419-\$ or US-20150045702-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20200179220-\$ or US-20190126061-\$ or US-20180168318-\$ or US-20150360014-\$ or US-20150119771-\$ or US-20100274162-\$ or US-20080103563-\$ or US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 07:11 PM

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L75	14	(US-20200179220-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20190015294-\$ or US-20180168318-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150297393-\$ or US-20150119771-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20110040235-\$ or US-20100121419-\$.did. or (US-7014639-\$.did.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/29 07:25 PM
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L77	2	((("6524329") or ("6974224")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/30 03:32 PM
L78	1	("10758452").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/30 03:35 PM

L79	431	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:44 PM
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L80	41681	a61h\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:45 PM
L81	114530	a61n\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:45 PM
L82	32068	a46b\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:46 PM
L83	183250	L80 L81 L82	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:46 PM
L84	74	L83 and (proximity near4 (detect\$4 sens\$4)) near7 ("180" "180.deg.")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:46 PM
L85	74	L83 and (proximity near4 (detect\$4 sens\$4)) near7 ("180" "180.deg." "180.deg"\$2)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:47 PM
L86	484	L83 and (proximity near4 (detect\$4 sens\$4)) near7 ("180" "180.deg." "180.deg"\$2 degree second)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:49 PM
L87	410	L86 not L85	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/30 03:50 PM
L88	41681	a61h\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31

L89	114530	a61n\$.cpc.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	01:11 PM 2021/10/31 01:11 PM
L90	32068	a46b\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 01:11 PM
L91	183250	L88 L89 L90	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 01:11 PM
L92	103	L91 and (proximity near4 (detect\$4 sens\$4)) near7 (pair)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 01:11 PM
L93	448	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 09:57 PM

		20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US-					
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		20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US-					
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		20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or					
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		US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US-20190126061-\$ or US-20190029411-\$ or US-20190014899-\$ or US-20190008332-\$ or US-20180361437-\$ or US-20180288160-\$ or US-20180279762-\$ or US-20180193219-\$ or US-20180015299-\$ or US-20170367761-\$ or US-20170367543-\$ or US-20170238686-\$ or US-20170188695-\$ or US-20170172837-\$ or US-20170150851-\$ or US-20170150810-\$ or US-20170135894-\$ or US-20170119144-\$ or US-20170071321-\$ or US-20170035649-\$ or US-20160339218-\$ or US-20160331106-\$ or US-20160183743-\$ or US-20200253811-\$ or US-20180169682-\$ or US-20180168318-\$ or US-20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or					
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		US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US-20210138260-\$ or US-20200352306-\$ or US-20190388707-\$ or US-20200179713-\$ or US-20200101312-\$ or US-20200046999-\$ or US-20100211136-\$ or US-20140343574-\$ or US-20080140164-\$ or US-20080103563-\$ or US-20050234383-\$ or US-20070106347-\$ or US-20070032843-\$ or US-20060030908-\$ or US-20050065579-\$ or US-20050055070-\$ or US-20040210277-\$ or US-20210022565-\$ or US-20200113390-\$ or US-20170181925-\$ or US-20200085015-\$ or US-20190117503-\$ or US-20190117497-\$ or US-20120226268-\$ or US-20130190845-\$ or US-20190046812-\$ or US-20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$).did. or (US-10714953-\$ or US-					
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		6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US-					
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		10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US-					
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L94	73	3467080-\$ or US-2490074-\$ or US-2424699-\$).did. L93 and (electrode microcurrent micro?current)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 09:57 PM
L95	72	L94 not (@ad>="20200629")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/10/31 09:58 PM
L96	1	("7384405").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/31 10:01 PM
L97	1	("20120165710").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/10/31 10:01 PM
L98	65	(US-20200085675-\$ or US-20210128402-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150265825-\$ or US-20150297393-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20110040235-\$ or US-20110106067-\$ or US-20100121419-\$ or US-20150045702-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20200179220-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20190126061-\$ or US-20180168318-\$ or US-20150360014-\$ or US-20150119771-\$ or US-20100274162-\$ or US-20080103563-\$ or US-20070213698-\$).did. or (US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/31 10:31 PM

		20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$ or US-20180149437-\$.did. or (US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$.did. or (US-10511777-\$ or US-7014639-\$ or US-10714953-\$ or US-6965375-\$ or US-6245890-\$ or US-7425947-\$.did.					
L99	17	(US-20200179220-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20190015294-\$ or US-20180168318-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150297393-\$ or US-20150119771-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20110040235-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20100121419-\$ or US-20070213698-\$.did. or (US-7014639-\$.did.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/31 10:42 PM
L100	16	(US-20200179220-\$ or US-20190017528-\$ or US-20190015294-\$ or US-20180168318-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150297393-\$ or US-20150119771-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20110040235-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20100121419-\$ or US-20070213698-\$.did. or (US-7014639-\$.did.	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/31 10:57 PM

L101	49	\$.did. L98 not L100	(US-PGPUB; USPAT)	OR	ON	ON	2021/10/31 11:06 PM
L102	2	((("20160367425") or ("20170027798")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/01 01:37 AM
L103	449	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$.did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/03 05:03 PM

		20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or					
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		US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US-20110184499-\$ or US-20110106067-\$ or US-20110098781-\$ or US-20100292746-\$ or US-20100210993-\$ or US-20100121419-\$ or US-20100049177-\$ or US-20090177125-\$ or US-20060058714-\$ or US-20080119913-\$ or US-20060253051-\$ or US-20050075149-\$ or US-20120209357-\$ or US-20120121309-\$ or US-20110092863-\$ or US-20110091265-\$ or US-20090287195-\$ or US-20090234423-\$ or US-20090088824-\$ or US-20090048557-\$ or US-20080172045-\$ or US-20080154162-\$ or US-20080014011-\$ or US-20160158568-\$ or US-20150150599-\$ or US-20150045702-\$ or US-20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or					
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		US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or					
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		US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or					
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		US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US-20210138260-\$ or US-20200352306-\$ or US-20190388707-\$ or US-20200179713-\$ or US-20200101312-\$ or US-20200046999-\$ or US-20100211136-\$ or US-20140343574-\$ or US-20080140164-\$ or US-20080103563-\$ or US-20050234383-\$ or US-20070106347-\$ or US-20070032843-\$ or US-20060030908-\$ or US-20050065579-\$ or US-20050055070-\$ or US-20040210277-\$ or US-20210022565-\$ or US-20200113390-\$ or US-20170181925-\$ or US-20200085015-\$ or US-20190117503-\$ or US-20190117497-\$ or US-20120226268-\$ or US-20130190845-\$ or US-20190046812-\$ or US-20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$).did. or (US-10714953-\$ or US-6965375-\$ or US-6245890-\$ or US-7425947-\$ or US-10945915-\$ or US-10940081-\$ or US-10702448-\$ or US-					
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		10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US-					
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L104	155	5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$).did.	(US-PGPUB; USPAT;	OR	ON	ON	2021/11/03
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		cosmetic)	USOCR)				05:27 PM
L105	2	(("20150119771") or ("20100121419")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/03 06:01 PM
L106	1	("20190015294").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/03 09:35 PM
L107	1	("20070213698").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/03 10:07 PM
L108	449	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-20210283005-\$ or US-20190175434-\$ or US-20170304145-\$ or US-20170042754-\$ or US-20150005682-\$ or US-20130261516-\$ or US-20070270727-\$ or US-20060282025-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/03 11:43 PM

		20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US-					
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		20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or					
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		US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or					
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		US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or					
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		US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US-					
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		10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US-					
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		7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US-					
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L109	88	2424699-\$.did. L108 and (prevent\$4 lock\$4) with (cap cover attachment module)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/03 11:43 PM
L110	124	L108 and (prevent\$4 lock\$4) with (rotation reciprocat\$4 tapping movement motion cap cover attachment module)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/03 11:43 PM
L111	126	L108 and (prevent\$4 lock\$4 cannot stop\$4) with (rotation reciprocat\$4 tapping movement motion cap cover)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/03 11:48 PM
L112	138	L108 and (prevent\$4 lock\$4 cannot stop\$4 restrain\$4 clamp\$4) with (rotation reciprocat\$4 tapping movement motion cap cover ring)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 12:18 AM
L113	144	L108 and (prevent\$4 lock\$4 cannot stop\$4 restrain\$4 clamp\$4) with (rotation reciprocat\$4 tapping movement motion cap cover collar ring)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 12:48 AM
L114	144	L108 and (prevent\$4 lock\$4 cannot stop\$4 restrain\$4 clamp\$4) with (rotation reciprocat\$4 tapping movement motion cap cover collar ring lid)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 01:22 AM
L115	353	L108 and (prevent\$4 lock\$4 cannot stop\$4 restrain\$4 clamp\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 01:39 AM
L116	988	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:04 AM
L117	16604647	"6"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:04 AM
L118	470	a61h23/006.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:04 AM
L119	111	a61h2023/002.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:06 AM
L120	232	a61h23/008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:06 AM
L121	2341	a61h23/02.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:06 AM
L122	128	a61h23/06.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04

L123	988	a61h23/00.cpc.	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	11:06 AM 2021/11/04 11:10 AM
L124	16604647	"6"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L125	470	a61h23/006.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L126	111	a61h2023/002.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L127	232	a61h23/008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L128	2341	a61h23/02.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L129	128	a61h23/06.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:10 AM
L130	988	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L131	470	a61h23/006.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L132	111	a61h2023/002.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L133	232	a61h23/008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L134	2341	a61h23/02.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L135	128	a61h23/06.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L136	3619	L130 L131 L132 L133 L134 L135	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L137	1925	L136 and (lock\$4 stop\$4 restrain\$4 clamp\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:12 AM
L138	560	L136 and (prevent\$4 cannot limit) near5 (reciprocat\$4 tap\$4 movement motion move moving translat\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:13 AM
L139	2067	L137 L138	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:16 AM
L140	2	((("20130261516") or ("20170007498")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 11:18 AM
L141	667	L136 and (prevent\$4 cannot limit restrict\$4) near5 (reciprocat\$4 tap\$4 movement motion move moving translat\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 11:31 AM
L142	1	("20170027798").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 02:54 PM
L143	988	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM

L144	470	a61h23/006.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L145	111	a61h2023/002.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L146	232	a61h23/008.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L147	2341	a61h23/02.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L148	128	a61h23/06.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L149	3619	L143 L144 L145 L146 L147 L148	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L150	1925	L149 and (lock\$4 stop\$4 restrain\$4 clamp\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L151	560	L149 and (prevent\$4 cannot limit) near5 (reciprocat\$4 tap\$4 movement motion move moving translat\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L152	2067	L150 L151	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L153	606	L152 and (prevent\$4 cannot limit lock\$4 stop\$4 restrain\$4 restrict\$4 clamp\$4) near5 (lid cover cap plate head attach\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:00 PM
L154	692	L152 and (prevent\$4 cannot limit lock\$4 stop\$4 restrain\$4 restrict\$4 clamp\$4) near5 (lid cover cap plate head attach\$4 collar ring)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 03:01 PM
L155	1	("20150045192").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 03:58 PM
L156	2	((("20150119771") or ("20100121419")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 04:03 PM
L157	1	(16/206703).APP.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 05:02 PM
L158	61	(US-20210195713-\$ or US-20210187765-\$ or US-20210154091-\$ or US-20200275758-\$ or US-20200237604-\$ or US-20200215350-\$ or US-20200170399-\$ or US-20150182078-\$ or US-20150182290-\$ or US-20160331106-\$ or US-20160256017-\$ or US-20160128461-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 05:02 PM

		US-20140202493-\$ or US-20110311296-\$ or US-20160045081-\$ or US-20180361437-\$ or US-20160270821-\$ or US-20150257521-\$ or US-20180295980-\$ or US-20090177125-\$ or US-20080172112-\$ or US-20080131834-\$ or US-20070123808-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20180242711-\$).did. or (US-20180092449-\$ or US-20170119144-\$ or US-20170071321-\$ or US-20140366288-\$ or US-20110138563-\$ or US-20210196557-\$ or US-20140194900-\$ or US-20170367543-\$ or US-20170202732-\$ or US-20140336540-\$ or US-20140309662-\$ or US-20100222719-\$ or US-20100145398-\$ or US-20080167590-\$ or US-20080125682-\$ or US-20080125680-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20160184162-\$ or US-20140107543-\$ or US-20110041864-\$ or US-20180325328-\$ or US-20060285910-\$).did. or (US-11076685-\$ or US-4166473-\$ or US-6029304-\$ or US-9386843-\$ or US-10966514-\$ or US-9032576-\$ or US-5725483-\$ or US-4463485-\$ or US-4203431-\$ or US-5647841-\$).did. or (WO-0156529-\$ or CH-618857-\$ or CH-616075-\$ or CH-585047-\$).did. or (WO-2015084962-\$ or WO-2005006538-\$ or US-20090177125-\$ or US-20190029411-\$ or EP-2700331-\$).did.					
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L159	61	(US-20210195713-\$ or US-20210187765-\$ or US-20210154091-\$ or US-20200275758-\$ or US-20200237604-\$ or US-20200215350-\$ or US-20200170399-\$ or US-20150182078-\$ or US-20150182290-\$ or US-20160331106-\$ or US-20160256017-\$ or US-20160128461-\$ or US-20140202493-\$ or US-20110311296-\$ or US-20160045081-\$ or US-20180361437-\$ or US-20160270821-\$ or US-20150257521-\$ or US-20180295980-\$ or US-20090177125-\$ or US-20080172112-\$ or US-20080131834-\$ or US-20070123808-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20180242711-\$).did. or (US-20180092449-\$ or US-20170119144-\$ or US-20170071321-\$ or US-20140366288-\$ or US-20110138563-\$ or US-20210196557-\$ or US-20140194900-\$ or US-20170367543-\$ or US-20170202732-\$ or US-20140336540-\$ or US-20140309662-\$ or US-20100222719-\$ or US-20100145398-\$ or US-20080167590-\$ or US-20080125682-\$ or US-20080125680-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20160184162-\$ or US-20140107543-\$ or US-20110041864-\$ or US-20180325328-\$ or US-20060285910-\$).did. or (US-11076685-\$ or US-4166473-\$ or US-6029304-\$ or US-9386843-\$ or US-10966514-\$ or US-9032576-\$ or US-5725483-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 08:56 PM
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		4463485-\$ or US-4203431-\$ or US-5647841-\$).did. or (WO-0156529-\$ or CH-618857-\$ or CH-616075-\$ or CH-585047-\$).did. or (WO-2015084962-\$ or WO-2005006538-\$ or US-20090177125-\$ or US-20190029411-\$ or EP-2700331-\$).did.					
L160	30	L159 and (lock\$4 stop\$4 restrain\$4 clamp\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/11/04 08:56 PM
L161	1	("20190015294").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/04 09:51 PM
L162	29	(US-20200085675-\$ or US-20210128402-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20150265825-\$ or US-20150297393-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20110040235-\$ or US-20110106067-\$ or US-20100121419-\$ or US-20150045702-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20200179220-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20190126061-\$ or US-20180168318-\$ or US-20150360014-\$ or US-20150119771-\$ or US-20100274162-\$ or US-20080103563-\$ or US-20070213698-\$).did. or (US-20150045192-\$).did. or (US-10511777-\$ or US-7014639-\$).did.	(US-PGPUB; USPAT)	OR	ON	ON	2021/11/04 10:06 PM
L163	22	(US-20210128402-\$ or US-20200179220-\$ or US-20180168318-\$ or US-20180031090-\$ or US-20180031089-\$ or US-20170189670-\$ or US-20150297393-\$ or US-20150265825-\$ or US-20150119771-\$ or US-20140276255-\$ or	(US-PGPUB; USPAT)	OR	ON	ON	2021/11/04 10:07 PM

L164	1	US-20140128780-\$ or US-20130046212-\$ or US-20110106067-\$ or US-20110040235-\$ or US-20100274329-\$ or US-20100274162-\$ or US-20100137752-\$ or US-20100121419-\$ or US-20080103563-\$ or US-20070213698-\$).did. or (US-10511777-\$ or US-7014639-\$).did. ("20120310124").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2021/11/05 02:48 PM
L165	518	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-20210283005-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2021/12/22 04:37 PM

		20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US-					
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		20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US-					
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		20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US-					
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		20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$.did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036- \$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$.did. or					
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		(US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or					
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		US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US- 20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US- 20160256017-\$ or US- 20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or					
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		US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or					
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		(US-10842703-\$ or US-10682281-\$ or US-7695207-\$ or US-4858600-\$ or US-1772501-\$ or US-11122206-\$ or US-10511777-\$ or US-6443915-\$ or US-7896908-\$ or US-7014639-\$ or US-6010264-\$ or US-5698866-\$ or US-5363045-\$ or US-5358503-\$ or US-5176130-\$ or US-2183726-\$ or US-1228669-\$ or US-9126034-\$ or US-8936542-\$ or US-6461377-\$ or US-6123657-\$ or US-6001055-\$ or US-5632720-\$ or US-5382222-\$ or US-5662593-\$ or US-5131384-\$ or US-4326508-\$).did. or (US-4841955-\$ or US-4549535-\$ or US-6432036-\$ or US-9456678-\$ or US-10722424-\$ or US-9504826-\$ or US-9278230-\$ or US-9084587-\$ or US-8620451-\$ or US-2490074-\$ or US-5103809-\$ or US-3710785-\$ or US-9782604-\$ or US-9592405-\$ or US-7479136-\$ or US-6702837-\$ or US-6019482-\$ or US-5551949-\$ or US-6875225-\$ or US-6974224-\$ or US-6524329-\$ or US-6221095-\$ or US-4561440-\$ or US-7384405-\$ or US-10272011-\$ or US-5067480-\$ or US-4716890-\$).did. or (US-11076685-\$ or US-10966514-\$ or US-9386843-\$ or US-5725483-\$ or US-					
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		5647841-\$ or US-4203431-\$).did. or (US-3494353-\$ or US-3169521-\$ or US-2078159-\$ or US-1660821-\$ or US-1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$).did.					
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L168	518	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:16 AM

		20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US-					
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		20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US-					
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L171	145	("10252051" "10737107 "1955863" "20080014 011" "20080125835" "2 0130012851" "2014021 9701" "20170202732" " 20200113322" "730526 9" "8105322" "9272141" "9386837" "9872813" " D803572" "2010013775 2" "20100274162" "201 30046212" "201502658 25" "10016337" "10285 722" "20040147984" "2 0070179573" "2008010 3563" "20080215123" " 20110184499" "201200 65555" "20140288364" " 20150045702" "20150	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:21 AM

		100002" "20150283025 " "20170072175" "2017 0238686" "2018013347 0" "20190262607" "202 00038673" "202002888 43" "4858600" "510380 9" "7010343" "8696605" "9579250" "201001214 19" "20070213698" "20 140128780" "20170189 670" "20180168318" "7 014639" "10124165" "1 0137054" "10307330" " 10383486" "10625093" " "20080119913" "20120 109041" "20140135798 " "20150224020" "2018 0015299" "2020025381 1" "20200390468" "202 10001148" "2183726" " " 6748266" "7083580" "7 204832" "7471979" "81 57753" "8182473" "865 5448" "D693932" "D736 399" "10511777" "1069 5508" "10881577" "200 40030325" "200500436 53" "20070198004" "20 070213696" "20090234 338" "20140323927" "2 0170049278" "2017012 8130" "20180185236" " " 20200129372" "202002 37085" "7282036" "850 6506" "9925006" "2010 0274329" "2012031012 4" "20180031090" "102 78888" "20070038206" " " "20100274162" "20100 274329" "20200280680 " "6766199" "6980854" " " 8945104" "9808646" "1 0376659" "10661072" " " 10821299" "200702391 42" "20070239143" "20 100121419" "20100312 157" "20140336540" "2 0160324719" "2019034 3712" "7258675" "7376 460" "8906009" "90230 21" "9042993" "200801 03563" "20110106067" " " "20140276255" "20150 297393" "20070213698 " "20080065176" "2009 0287195" "2017005668 5" "20190240110" "202 00215351" "202002376					
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L173	0	L172 not L171	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:21 AM
L174	78	("2484471" "3270360" "3661018" "3699952" "4084280").PN. OR ("4397055").URPN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:23 AM
L175	9	("6349442" "4355545" "10731716" "20160183671" "2808828" "6140723" "10087996" "4397055").PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:25 AM
L176	13	("6349442" "5321865" "20160183671" "4273458" "2808828" "8087116" "6140723" "3491279" "2548411" "4397055").P N.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:26 AM
L177	15740163	L176 no L175	(US-PGPUB; USPAT;	OR	ON	ON	2022/02/15

L178	7	L176 not L175	USOCR) (US-PGPUB; USPAT; USOCR)	OR	ON	ON	12:26 AM 2022/02/15 12:26 AM
L179	524	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:36 AM

		(US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or					
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		US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or					
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		US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or					
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		US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US-20190126061-\$ or US-20190029411-\$ or US-20190014899-\$ or US-20190008332-\$ or US-20180361437-\$ or US-20180288160-\$ or US-20180279762-\$ or US-20180193219-\$ or US-20180015299-\$ or US-20170367761-\$ or US-20170367543-\$ or US-20170238686-\$ or US-20170188695-\$ or US-20170172837-\$ or US-20170150851-\$ or US-20170150810-\$ or US-20170135894-\$ or US-20170119144-\$ or US-20170071321-\$ or US-20170035649-\$ or US-20160339218-\$ or US-20160331106-\$ or US-20160183743-\$ or US-20200253811-\$ or US-20180169682-\$ or US-20180168318-\$ or US-20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or					
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		US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US-20210138260-\$ or US-20200352306-\$ or US-20190388707-\$ or US-20200179713-\$ or US-20200101312-\$ or US-20200046999-\$ or US-20100211136-\$ or US-20140343574-\$ or US-20080140164-\$ or US-20080103563-\$ or US-20050234383-\$ or US-20070106347-\$ or US-20070032843-\$ or US-20060030908-\$ or US-20050065579-\$ or US-20050055070-\$ or US-20040210277-\$ or US-20210022565-\$ or US-20200113390-\$ or US-20170181925-\$ or US-20200085015-\$ or US-20190117503-\$ or US-20190117497-\$ or US-20120226268-\$ or US-20130190845-\$ or US-20190046812-\$ or US-20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or					
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		US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US- 20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US- 20160256017-\$ or US- 20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US-					
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		10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US-					
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		5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US-					
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		1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$).did.					
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L181	0	a45d.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:39 AM
L182	4717	a45d34/04,041,042.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:39 AM
L183	4997	L180 L182	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:40 AM
L184	430	L183 and (reciprocat\$4 tap tapped tapping)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/15 12:40 AM
L185	1	("20050138740").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/02/15 12:47 AM
L186	542	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/26 08:53 PM

		20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US-					
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		20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US-					
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		7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US-					
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		5073058-\$ or US-4991749-\$ or US-4930923-\$ or US-4883380-\$ or US-4723860-\$ or US-4171171-\$).did. or (US-3494353-\$ or US-3169521-\$ or US-2078159-\$ or US-1660821-\$ or US-1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$ or US-2995768-\$).did.					
L188	3	((("20150119771") or ("20100121419") or ("20180031090")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/02/28 10:22 PM
L189	250	L187 and (detach\$4 attach\$4 remov\$4) with (membrane cap layer capping skin cushion\$4 cosmetic\$4 lotion)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:33 PM
L190	347	L187 and (detach\$4 attach\$4 remov\$4) with (membrane cap layer capping skin cushion\$4 cosmetic\$4 lotion cover\$3 applicator surface)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:37 PM
L191	347	L187 and (detach\$4 attach\$4 remov\$4) with (membrane cap layer capping skin cushion\$4 cosmetic\$4 lotion cover\$3 applicator surface medicine medicament)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:38 PM
L192	348	L187 and (detach\$4 attach\$4 remov\$4) with (membrane cap layer capping skin cushion\$4 cosmetic\$4 lotion cover\$3 applicator surface medicine	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:39 PM

L193	333	medicament disposable hygien\$4) L192 not (@ad>="20200629")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:41 PM
L194	349	L187 and (detach\$4 attach\$4 remov\$4) with (membrane cap layer capping skin cushion\$4 cosmetic\$4 lotion cover\$3 applicator surface medicine medicament disposable hygien\$4 pad padded padding antimicrobial anti?microb\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:50 PM
L195	334	L194 not (@ad>="20200629")	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:52 PM
L196	145	("10252051" "10737107 "1955863" "20080014 011" "20080125835" "2 0130012851" "2014021 9701" "20170202732" " 20200113322" "730526 9" "8105322" "9272141" "9386837" "9872813" " D803572" "2010013775 2" "20100274162" "201 30046212" "201502658 25" "10016337" "10285 722" "20040147984" "2 0070179573" "2008010 3563" "20080215123" " 20110184499" "201200 65555" "20140288364" " "20150045702" "20150 100002" "20150283025 " "20170072175" "2017 0238686" "2018013347 0" "20190262607" "202 00038673" "202002888 43" "4858600" "510380 9" "7010343" "8696605" "9579250" "201001214 19" "20070213698" "20 140128780" "20170189 670" "20180168318" "7 014639" "10124165" "1 0137054" "10307330" "1 10383486" "10625093" "1 "20080119913" "20120 109041" "20140135798 " "20150224020" "2018 0015299" "2020025381 1" "20200390468" "202 10001148" "2183726" "1 6748266" "7083580" "7 204832" "7471979" "81	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:58 PM

L197	7	57753 "8182473 "865 5448 "D693932 "D736 399 "10511777 "1069 5508 "10881577 "200 40030325 "200500436 53 "20070198004 "20 070213696 "20090234 338 "20140323927 "2 0170049278 "2017012 8130 "20180185236 "2 20200129372 "202002 37085 "7282036 "850 6506 "9925006 "2010 0274329 "2012031012 4 "20180031090 "102 78888 "20070038206" "20100274162 "20100 274329 "20200280680 "6766199 "6980854" "8945104 "9808646" "1 0376659 "10661072" "10821299 "200702391 42 "20070239143 "20 100121419 "20100312 157 "20140336540 "2 0160324719 "2019034 3712 "7258675 "7376 460 "8906009 "90230 21 "9042993 "200801 03563 "20110106067" "20140276255 "20150 297393 "20070213698 "20080065176 "2009 0287195 "2017005668 5 "20190240110 "202 00215351 "202002376 04 "6535761 "674321 5 "8523791 "8540702" "9084587 "9278045" "D764173 "D765982" "2 0110040235 "2015011 9771 "20210128402" "10511777 "10518097" "20080103560 "20080 193493 "20080275532 "20090043293 "2020 0268594 "7532926" "8 382690 "9585687 "20 180031089 "20200179 220").PN. (US-20200009010-\$ or US-20160184162-\$ or US-20200352317-\$ or US-20200237604-\$ or US-20200352306-\$ or US-20190388707-\$).did. or (US-4397055-\$).did.	(US-PGPUB; USPAT)	OR	ON	ON	2022/02/28 10:58 PM
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L198	6	L197 not L196	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/02/28 10:58 PM
L199	1	("20120165710").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/02/28 11:26 PM
L200	542	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-20210283005-\$ or US-20190175434-\$ or US-20170304145-\$ or US-20170042754-\$ or US-20150005682-\$ or US-20130261516-\$ or US-20070270727-\$ or US-20060282025-\$ or US-20030009116-\$ or US-20210244609-\$ or US-20210228437-\$ or US-20210196563-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/03 09:49 PM

		20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or					
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		US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US-20110184499-\$ or US-20110106067-\$ or US-20110098781-\$ or US-20100292746-\$ or US-20100210993-\$ or US-20100121419-\$ or US-20100049177-\$ or US-20090177125-\$ or US-20060058714-\$ or US-20080119913-\$ or US-20060253051-\$ or US-20050075149-\$ or US-20120209357-\$ or US-20120121309-\$ or US-20110092863-\$ or US-20110091265-\$ or US-20090287195-\$ or US-20090234423-\$ or US-20090088824-\$ or US-20090048557-\$ or US-20080172045-\$ or US-20080154162-\$ or US-20080014011-\$ or US-20160158568-\$ or US-20150150599-\$ or US-20150045702-\$ or US-20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or					
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		US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or					
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		US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or					
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		US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or					
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		US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US- 20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US- 20160256017-\$ or US- 20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$ or US-20220039535-\$ or US-20210244170-\$ or US-20050138740-\$ or US-20180027942-\$ or US-20160324373-\$ or US-20150034113-\$ or US-20140356045-\$ or					
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		US-20110270274-\$ or US-20040249320- \$).did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US-					
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		7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US-					
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		4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$).did.					
L201	327	(reciprocat\$4 percuss\$4 oscillat\$4).clm. with (electric\$4 light) with (detach\$4 removab\$4)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/04 10:58 AM
L207	1	("20140371637").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/03/04 02:52 PM
L208	7	("2014/0371637").URP N.	(USPAT)	OR	ON	ON	2022/03/04 02:56 PM
L209	28	("20030083720" "20030163068" "20040006332" "20050070827" "20060247742" "20080282437" "20100004570" "20100049177" "20110138556" "20110251523" "20120109043" "20120265274" "20130046212" "20140128780" "20140163437"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/04 03:51 PM

		"20140371637" "20150133832" "20150351999" "20150360024" "20160074641" "20160121108" "3467080" "3585990" "5176130" "7914523" "9987185").PN. OR ("10307330").URPN.					
L210	1020	a61h23/00.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/04 03:51 PM
L211	9	(US-20160074641-\$ or US-20150360024-\$ or US-20150351999-\$ or US-20150133832-\$ or US-20140371637-\$ or US-20140163437-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20120265274-\$).did.	(US-PGPUB)	OR	ON	ON	2022/03/04 03:52 PM
L212	7	(US-20160184162-\$ or US-20200352317-\$ or US-20200093945-\$ or US-20200352306-\$ or US-20190388707-\$ or US-20140371637-\$).did. or (US-4397055-\$).did.	(US-PGPUB; USPAT)	OR	ON	ON	2022/03/05 10:58 PM
L213	545	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/05 11:12 PM

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L217	3	2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$ or US-2995768-\$).did. (("20170027735") or ("20050059908") or ("20150190249")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/03/30 09:55 PM
L218	636	(US-20200237085-\$ or US-20150182290-\$ or US-20160192814-\$ or US-20150202114-\$ or US-20150182246-\$ or US-20130281894-\$ or US-20120109041-\$ or US-20100145242-\$ or US-20200038673-\$ or US-20180168318-\$ or US-20160184175-\$ or US-20160339219-\$ or US-20160339218-\$ or US-20160184177-\$ or US-20160184176-\$ or US-20150182078-\$ or US-20180360203-\$ or US-20180295980-\$ or US-20160184162-\$ or US-20200253811-\$ or US-20200085684-\$ or US-20150182415-\$ or US-20140194900-\$ or US-20190142691-\$ or US-20190060159-\$ or US-20180193219-\$).did. or (US-20170172834-\$ or US-20160058651-\$ or US-20160331106-\$ or US-20160074641-\$ or US-20080306417-\$ or US-20150297393-\$ or US-20150305923-\$ or US-20140276255-\$ or US-20130085556-\$ or US-20120165708-\$ or US-20110040235-\$ or US-20070179414-\$ or US-20060211961-\$ or US-20050107724-\$ or US-20200315904-\$ or US-20200222276-\$ or US-20160213558-\$ or US-20200170399-\$ or US-20200154874-\$ or US-20200038530-\$ or US-20190191937-\$ or US-20170332850-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/03/31 10:37 AM

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		4655232-\$ or US- 4441487-\$ or US- 4087675-\$ or US- 8523791-\$ or US- 5989286-\$ or US- 5131383-\$ or US- 4944297-\$ or US- 4745909-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 2809630-\$ or US- 2638527-\$ or US- 1840981-\$ or US- 1634316-\$).did. or (US- 7465296-\$ or US- 7112178-\$ or US- 6499485-\$ or US- 5251620-\$ or US- 4681095-\$ or US- 10441496-\$ or US- 10098808-\$ or US- 9675516-\$ or US- 8226699-\$ or US- 6336907-\$ or US- 6013042-\$ or US- 8641702-\$ or US- 10314763-\$ or US- 8484788-\$ or US- 10849421-\$ or US- 9919437-\$ or US- 7386906-\$ or US- 9993059-\$ or US- 9763508-\$ or US- 8740917-\$ or US- 8469909-\$ or US- 5927289-\$ or US- 5218955-\$ or US- D864577-\$ or US- 10426692-\$ or US- 10058351-\$ or US- 10058168-\$).did. or (US-9596928-\$ or US- 9578998-\$ or US- D767897-\$ or US- 9351559-\$ or US- D715558-\$ or US- 10080428-\$ or US- 9474358-\$ or US- 10856648-\$ or US- 10736413-\$ or US- 10681975-\$ or US- 10603799-\$ or US- 10588400-\$ or US- 10531729-\$ or US- 10518097-\$ or US- 10349731-\$ or US- 10194742-\$ or US- 10182642-\$ or US-					
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		10021964-\$ or US- 9925113-\$ or US- 9801448-\$ or US- 9380860-\$ or US- 9301657-\$ or US- 9107486-\$ or US- 8966710-\$ or US- 6170108-\$ or US- 4476602-\$ or US- 4158246-\$).did. or (US- 6001070-\$ or US- 6758826-\$ or US- 9066778-\$ or US- 9883982-\$ or US- 5520617-\$ or US- 3610232-\$ or US- 2526190-\$ or US- 7244237-\$ or US- 6679857-\$ or US- 2709432-\$ or US- 2985166-\$ or US- 6074413-\$ or US- 5484366-\$ or US- 7077858-\$ or US- 4846176-\$ or US- 5618275-\$ or US- 5588161-\$ or US- 5163446-\$ or US- 5323778-\$ or US- 9029736-\$ or US- 6523354-\$ or US- 10470922-\$ or US- 9132031-\$ or US- 6017337-\$ or US- 6074414-\$ or US- 5800490-\$ or US- 4889970-\$).did. or (US- 3967627-\$ or US- 8535363-\$ or US- 2477883-\$).did. or (US- 3413973-\$ or US- 3382866-\$ or US- 3370583-\$ or US- 2795224-\$ or US- 2472385-\$ or US- 2424699-\$ or US- 2285105-\$ or US- 1844247-\$ or US- 1664009-\$ or US- 2540792-\$ or US- 3467080-\$ or US- 1974031-\$ or US- 3503395-\$ or US- 2985166-\$ or US- 2261385-\$ or US- 2154428-\$ or US- 2097455-\$ or US- 2067979-\$ or US-					
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		1703811-\$ or US- 2490074-\$ or US- 1969042-\$ or US- 1951776-\$ or US- 1905750-\$ or US- 1772501-\$ or US- 1731504-\$ or US- 3298368-\$).did. or (US- 2698617-\$ or US- 2385501-\$ or US- 2183726-\$ or US- 2176736-\$ or US- 2023412-\$ or US- RE19043-\$ or US- 1947042-\$ or US- 1911027-\$ or US- 1714693-\$ or US- 1380986-\$ or US- 2809630-\$ or US- 2638527-\$ or US- 2546095-\$ or US- 2515524-\$ or US- 2021732-\$ or US- 1840981-\$ or US- 1833105-\$ or US- 1634316-\$ or US- 2787261-\$ or US- 2448797-\$ or US- 2208729-\$ or US- 1820895-\$ or US- 2465250-\$ or US- 2526190-\$ or US- 2709432-\$ or US- 2787998-\$ or US- 2593875-\$).did. or (US- 3154926-\$).did.					
L219	553	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/01 04:46 PM

		US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or					
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		3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US-					
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		6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$).did. or (US-3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US-					
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		1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$).did.					
L221	636	(US-20200237085-\$ or US-20150182290-\$ or US-20160192814-\$ or US-20150202114-\$ or US-20150182246-\$ or US-20130281894-\$ or US-20120109041-\$ or US-20100145242-\$ or US-20200038673-\$ or US-20180168318-\$ or US-20160184175-\$ or US-20160339219-\$ or US-20160339218-\$ or US-20160184177-\$ or US-20160184176-\$ or US-20150182078-\$ or US-20180360203-\$ or US-20180295980-\$ or US-20160184162-\$ or US-20200253811-\$ or US-20200085684-\$ or US-20150182415-\$ or US-20140194900-\$ or US-20190142691-\$ or US-20190060159-\$ or US-20180193219-\$).did. or (US- 20170172834-\$ or US- 20160058651-\$ or US- 20160331106-\$ or US- 20160074641-\$ or US- 20080306417-\$ or US- 20150297393-\$ or US- 20150305923-\$ or US- 20140276255-\$ or US- 20130085556-\$ or US- 20120165708-\$ or US- 20110040235-\$ or US- 20070179414-\$ or US- 20060211961-\$ or US- 20050107724-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/01 11:09 PM

		20200315904-\$ or US- 20200222276-\$ or US- 20160213558-\$ or US- 20200170399-\$ or US- 20200154874-\$ or US- 20200038530-\$ or US- 20190191937-\$ or US- 20170332850-\$ or US- 20180361437-\$ or US- 20180140813-\$ or US- 20170367543-\$ or US- 20170367471-\$ or US- 20170360648-\$).did. or (US-20170238686-\$ or US-20170224098-\$ or US-20170172837-\$ or US-20170150851-\$ or US-20150360014-\$ or US-20160183743-\$ or US-20150305969-\$ or US-20140202493-\$ or US-20150224020-\$ or US-20150173998-\$ or US-20150164733-\$ or US-20150141884-\$ or US-20140330289-\$ or US-20140276281-\$ or US-20030165550-\$ or US-20060058714-\$ or US-20060135319-\$ or US-20040147984-\$ or US-20200093945-\$ or US-20190008718-\$ or US-20180185236-\$ or US-20180015299-\$ or US-20160331308-\$ or US-20170135894-\$ or US-20160113836-\$ or US-20160030279-\$ or US-20150272774-\$).did. or (US- 20150150745-\$ or US- 20150119771-\$ or US- 20140221737-\$ or US- 20120065556-\$ or US- 20090163984-\$ or US- 20080014011-\$ or US- 20070206986-\$ or US- 20060155225-\$ or US- 20060129072-\$ or US- 20060100558-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20050059909-\$ or US- 20020072693-\$ or US- 20030149381-\$ or US- 20030125648-\$ or US- 20020169398-\$ or US-					
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		20170056685-\$ or US- 20160120375-\$ or US- 20160045081-\$ or US- 20150359324-\$ or US- 20150189980-\$ or US- 20150165179-\$ or US- 20150150754-\$ or US- 20120136289-\$ or US- 20090198159-\$ or US- 20090048557-\$).did. or (US-20060122631-\$ or US-20040171970-\$ or US-20150173996-\$ or US-20100198119-\$ or US-20090177125-\$ or US-20050277950-\$ or US-20040015139-\$ or US-20190126061-\$ or US-20170367761-\$ or US-20170035649-\$ or US-20150265457-\$ or US-20140128780-\$ or US-20130197405-\$ or US-20120209363-\$ or US-20120209154-\$ or US-20110009783-\$ or US-20090088824-\$ or US-20050049526-\$ or US-20030009116-\$ or US-20090222072-\$ or US-20060258962-\$ or US-20030014096-\$ or US-20020086204-\$ or US-20130085421-\$ or US-20100274162-\$ or US-20090270779-\$ or US-20090043293-\$).did. or (US- 20040091663-\$ or US- 20030120185-\$ or US- 20030116452-\$ or US- 20130231594-\$ or US- 20130172792-\$ or US- 20130012848-\$ or US- 20120265108-\$ or US- 20120172771-\$ or US- 20070287938-\$ or US- 20060235341-\$ or US- 20060060184-\$ or US- 20150057579-\$ or US- 20120265106-\$ or US- 20070129654-\$ or US- 20050085749-\$ or US- 20030100936-\$ or US- 20200100936-\$ or US- 20200069936-\$ or US- 20190290531-\$ or US- 20180214340-\$ or US-					
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		20180280233-\$ or US- 20180279762-\$ or US- 20180242711-\$ or US- 20180092449-\$).did. or (US-20180042361-\$ or US-20170326020-\$ or US-20170189286-\$ or US-20170189227-\$ or US-20170188695-\$ or US-20170119144-\$ or US-20170014299-\$ or US-20160324373-\$ or US-20160206087-\$ or US-20160184171-\$ or US-20160015150-\$ or US-20150265825-\$ or US-20140366288-\$ or US-20080138138-\$ or US-20080255484-\$ or US-20080087296-\$ or US-20050020948-\$ or US-20190239631-\$ or US-20190014899-\$ or US-20190008332-\$ or US-20180361137-\$ or US-20160270821-\$ or US-20150257521-\$ or US-20170347789-\$ or US-20170119220-\$ or US-20170071321-\$ or US-20170042386-\$).did. or (US- 20160287034-\$ or US- 20160128461-\$ or US- 20150305487-\$ or US- 20150305486-\$ or US- 20150173842-\$ or US- 20140373003-\$ or US- 20140135665-\$ or US- 20130060176-\$ or US- 20130023901-\$ or US- 20120233798-\$ or US- 20120165710-\$ or US- 20110044750-\$ or US- 20120037184-\$ or US- 20090083917-\$ or US- 20050278877-\$ or US- 20050278876-\$ or US- 20050199265-\$ or US- 20040210175-\$ or US- 20180093106-\$ or US- 20140303695-\$ or US- 20140261380-\$ or US- 20180361167-\$ or US- 20180352934-\$ or US- 20160184173-\$ or US- 20160129274-\$ or US- 20110220634-\$ or US-					
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		5353461-\$ or US- 5471695-\$ or US- 5687442-\$ or US- 5891063-\$ or US- 5956792-\$ or US- 5974615-\$ or US- 6032313-\$ or US- 6090085-\$ or US- 9138257-\$ or US- 7572238-\$ or US- 7469703-\$ or US- 7384405-\$ or US- 7157816-\$ or US- 5300095-\$ or US- 4691693-\$ or US- 4520799-\$ or US- 3503395-\$ or US- 2787998-\$ or US- 10307330-\$ or US- 9962284-\$ or US- 7147610-\$ or US- 6711750-\$ or US- 6567696-\$ or US- 6416534-\$ or US- 6409748-\$ or US- 6102875-\$).did. or (US- 5918590-\$ or US- 4685442-\$ or US- 1703811-\$ or US- 8777881-\$ or US- 4010742-\$ or US- 5725484-\$ or US- 5577997-\$ or US- 5176130-\$ or US- 4577625-\$ or US- 4427001-\$ or US- 4086922-\$ or US- 8372130-\$ or US- 5775344-\$ or US- 5327886-\$ or US- 4925743-\$ or US- 4559047-\$ or US- 3804077-\$ or US- 3298368-\$ or US- 2698617-\$ or US- 2385501-\$ or US- 1911027-\$ or US- 1714693-\$ or US- 10188549-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8921746-\$).did. or (US- 8882378-\$ or US- 8864401-\$ or US- 8715210-\$ or US- 8620451-\$ or US- 7959369-\$ or US-					
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		7322945-\$ or US- 7128722-\$ or US- 6648904-\$ or US- 5556468-\$ or US- 5690608-\$ or US- 5336159-\$ or US- 4920956-\$ or US- 4787373-\$ or US- 4655232-\$ or US- 4441487-\$ or US- 4087675-\$ or US- 8523791-\$ or US- 5989286-\$ or US- 5131383-\$ or US- 4944297-\$ or US- 4745909-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 2809630-\$ or US- 2638527-\$ or US- 1840981-\$ or US- 1634316-\$).did. or (US- 7465296-\$ or US- 7112178-\$ or US- 6499485-\$ or US- 5251620-\$ or US- 4681095-\$ or US- 10441496-\$ or US- 10098808-\$ or US- 9675516-\$ or US- 8226699-\$ or US- 6336907-\$ or US- 6013042-\$ or US- 8641702-\$ or US- 10314763-\$ or US- 8484788-\$ or US- 10849421-\$ or US- 9919437-\$ or US- 7386906-\$ or US- 9993059-\$ or US- 9763508-\$ or US- 8740917-\$ or US- 8469909-\$ or US- 5927289-\$ or US- 5218955-\$ or US- D864577-\$ or US- 10426692-\$ or US- 10058351-\$ or US- 10058168-\$).did. or (US-9596928-\$ or US- 9578998-\$ or US- D767897-\$ or US- 9351559-\$ or US- D715558-\$ or US- 10080428-\$ or US- 9474358-\$ or US- 10856648-\$ or US- 10736413-\$ or US-					
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		10681975-\$ or US- 10603799-\$ or US- 10588400-\$ or US- 10531729-\$ or US- 10518097-\$ or US- 10349731-\$ or US- 10194742-\$ or US- 10182642-\$ or US- 10021964-\$ or US- 99251113-\$ or US- 9801448-\$ or US- 9380860-\$ or US- 9301657-\$ or US- 9107486-\$ or US- 8966710-\$ or US- 6170108-\$ or US- 4476602-\$ or US- 4158246-\$).did. or (US- 6001070-\$ or US- 6758826-\$ or US- 9066778-\$ or US- 9883982-\$ or US- 5520617-\$ or US- 3610232-\$ or US- 2526190-\$ or US- 7244237-\$ or US- 6679857-\$ or US- 2709432-\$ or US- 2985166-\$ or US- 6074413-\$ or US- 5484366-\$ or US- 7077858-\$ or US- 4846176-\$ or US- 5618275-\$ or US- 5588161-\$ or US- 5163446-\$ or US- 5323778-\$ or US- 9029736-\$ or US- 6523354-\$ or US- 10470922-\$ or US- 9132031-\$ or US- 6017337-\$ or US- 6074414-\$ or US- 5800490-\$ or US- 4889970-\$).did. or (US- 3967627-\$ or US- 8535363-\$ or US- 2477883-\$).did. or (US- 3413973-\$ or US- 3382866-\$ or US- 3370583-\$ or US- 2795224-\$ or US- 2472385-\$ or US- 2424699-\$ or US- 2285105-\$ or US- 1844247-\$ or US- 1664009-\$ or US- 2540792-\$ or US-					
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L222	294	L221 and (thermal cool cooling cool\$3)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/01 11:09 PM
L223	656	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/04 01:26 PM

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		US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US-20180031089-\$ or US-20170304144-\$ or US-20140031866-\$ or US-20170049278-\$ or US-20160184177-\$ or US-20160113840-\$ or US-20150265825-\$ or US-20150174387-\$ or US-20140188169-\$ or US-20090236359-\$ or US-20100137907-\$ or US-20030158505-\$ or US-20050222525-\$ or US-20050187498-\$ or US-20020082532-\$ or US-20020082536-\$ or US-20210259915-\$ or US-20210186800-\$ or US-20210177692-\$ or US-20200330321-\$ or US-20140194900-\$ or US-20210100718-\$ or US-20200390645-\$ or US-20190254922-\$ or US-20200222263-\$ or US-20160213558-\$ or US-20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or					
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		\$.did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US-					
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		4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US-					
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		1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$ or US- 3154926-\$ or US- 2985166-\$ or US- 2809630-\$ or US- 2477883-\$ or US- 2472385-\$ or US- 1380986-\$).did.					
L224	656	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/04 01:33 PM

		20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US-					
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		US-20150150754-\$ or US-20150141884-\$ or US-20150119962-\$ or US-20150065927-\$ or US-20150057579-\$ or US-20140366288-\$ or US-20140330289-\$ or US-20140305458-\$ or US-20190167330-\$ or US-20190148617-\$ or US-20180352934-\$ or US-20150272774-\$ or US-20140221880-\$ or US-20140005759-\$ or US-20130331914-\$ or US-20130281893-\$ or US-20130197405-\$ or US-20130085556-\$).did. or (US- 20120265108-\$ or US- 20120265106-\$ or US- 20120209363-\$ or US- 20120209154-\$ or US- 20120172771-\$ or US- 20120165708-\$ or US- 20110202048-\$ or US- 20110200381-\$ or US- 20100087762-\$ or US- 20100056964-\$ or US- 20030100936-\$ or US- 20090264971-\$ or US- 20080264464-\$ or US- 20080188915-\$ or US- 20080168605-\$ or US- 20080168595-\$ or US- 20080141681-\$ or US- 20070255187-\$ or US- 20060135911-\$ or US- 20060064147-\$ or US- 20060060184-\$ or US- 20050209663-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20040171970-\$ or US- 20030163176-\$ or US- 20030014096-\$).did. or (US-10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US-					
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		8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US-					
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		9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US-					
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		9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US- 6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US- 4846176-\$ or US- 4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$ or US- 3154926-\$ or US- 2985166-\$ or US- 2809630-\$ or US- 2477883-\$ or US- 2472385-\$ or US- 1380986-\$).did.					
L225	261	L224 and (thermal cool cooling cool\$3)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/04 01:38 PM
L226	197	("20030009116" "20140 180331" "20160346163 " "20170156974" "2018 0200141" "3626934" "6 228042" "7996996" "20 170049278" "1545027" " "1657765" "D091454" " D195145" "D197142" " D265985" "D300132" " D374934" "D384639" " D400758" "D430774" " D440136" "D544102" "	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/04 01:40 PM

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		20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$).did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036-\$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US-					
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		20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US-					
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		20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US-					
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		20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US- 20160256017-\$ or US- 20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$ or US-20220039535-\$ or US-20210244170-\$ or US-20050138740-\$ or US-20180027942-\$ or US-20160324373-\$ or US-20150034113-\$ or US-20140356045-\$ or US-20110270274-\$ or US-20040249320-\$ or US-20140371637-\$ or US-20200397611-\$ or US-20200129327-\$ or US-20200100936-\$ or US-20200069936-\$ or US-20200037745-\$ or US-20190290531-\$ or US-20190191937-\$ \$).did. or (US- 20190104774-\$ or US- 20190060159-\$ or US- 20190001503-\$ or US- 20180214304-\$ or US- 20180098615-\$ or US- 20170367471-\$ or US- 20170360648-\$ or US- 20170347789-\$ or US- 20170224098-\$ or US- 20170194849-\$ or US- 20170194848-\$ or US- 20170189227-\$ or US- 20170181924-\$ or US- 20170172834-\$ or US- 20170042386-\$ or US- 20160287034-\$ or US- 20160223269-\$ or US-					
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		20160190902-\$ or US- 20160184176-\$ or US- 20160184171-\$ or US- 20160183671-\$ or US- 20160183670-\$ or US- 20160120375-\$ or US- 20160113836-\$ or US- 20160074275-\$ or US- 20160037902-\$ or US- 20150359324-\$).did. or (US-20150305486-\$ or US-20150265457-\$ or US-20150202114-\$ or US-20150189980-\$ or US-20150173998-\$ or US-20150173996-\$ or US-20150173842-\$ or US-20150165179-\$ or US-20150164733-\$ or US-20150150754-\$ or US-20150141884-\$ or US-20150119962-\$ or US-20150065927-\$ or US-20150057579-\$ or US-20140366288-\$ or US-20140330289-\$ or US-20140305458-\$ or US-20190167330-\$ or US-20190148617-\$ or US-20180352934-\$ or US-20150272774-\$ or US-20140221880-\$ or US-20140005759-\$ or US-20130331914-\$ or US-20130281893-\$ or US-20130197405-\$ or US-20130085556-\$).did. or (US- 20120265108-\$ or US- 20120265106-\$ or US- 20120209363-\$ or US- 20120209154-\$ or US- 20120172771-\$ or US- 20120165708-\$ or US- 20110202048-\$ or US- 20110200381-\$ or US- 20100087762-\$ or US- 20100056964-\$ or US- 20030100936-\$ or US- 20090264971-\$ or US- 20080264464-\$ or US- 20080188915-\$ or US- 20080168605-\$ or US- 20080168595-\$ or US- 20080141681-\$ or US- 20070255187-\$ or US- 20060135911-\$ or US- 20060064147-\$ or US-					
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		20060060184-\$ or US- 20050209663-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20040171970-\$ or US- 20030163176-\$ or US- 20030014096-\$).did. or (US-20180279843-\$ or US-20180243158-\$ or US-20180008512-\$ or US-20150148592-\$ or US-20130138023-\$ or US-20070150004-\$). did. or (US- 10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US-					
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		3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US-					
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		4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US- 9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US- 6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US- 4846176-\$ or US- 4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$ or US- 8951216-\$ or US- 7927259-\$ or US- 6723060-\$ or US- 6663657-\$ or US- 6599260-\$ or US- 5569168-\$ or US- 4730605-\$ or US- 4150668-\$ or US- 3452226-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US-					
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		3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$ or US-2995768-\$ or US-3154926-\$ or US-2985166-\$ or US-2809630-\$ or US-2477883-\$ or US-2472385-\$ or US-1380986-\$).did.					
L229	282	L228 and (thermal cool cooling cool\$3 cold)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/04 01:56 PM
L230	1	("20060058714").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/04 02:28 PM
L231	1	("7211057").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/04 03:19 PM
L232	1	("6896693").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/04 04:43 PM
L236	26	(US-20200086137-\$ or US-20100121419-\$ or US-20140128780-\$ or US-20130030506-\$ or US-20200038673-\$ or US-20190126061-\$ or US-20180169682-\$ or US-20180168318-\$ or US-20150182415-\$ or US-20200179713-\$ or US-20200046999-\$ or US-20210022565-\$ or US-20200113390-\$ or US-20170181925-\$ or US-20200085015-\$ or US-20190117503-\$ or US-20190117497-\$ or US-20120226268-\$ or US-20130190845-\$ or US-20110034837-\$ or US-20170164876-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$).did. or (US-6221095-\$ or US-4561440-\$).did.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/05 02:34 PM
L237	32	(US-20190017528-\$ or US-20190015294-\$ or	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 12:10 PM

		US-20180031090-\$ or US-20180031089-\$ or US-20150297393-\$ or US-20180295980-\$ or US-20160184162-\$ or US-20110040235-\$ or US-20100121419-\$ or US-20140128780-\$ or US-20130046212-\$ or US-20210059396-\$ or US-20180185236-\$ or US-20200179220-\$ or US-20100274329-\$ or US-20100137752-\$ or US-20190142691-\$ or US-20200237085-\$ or US-20200000294-\$ or US-20200253811-\$ or US-20180168318-\$ or US-20150119771-\$ or US-20100274162-\$ or US-20190388707-\$ or US-20100211136-\$ or US-20070213698-\$).did. or (US- 20150045192-\$ or US- 20120310124-\$ or US- 20190290531-\$ or US- 20130085556-\$).did. or (US-7014639-\$ or US- 4397055-\$).did.					
L238	26	("20080282437" "20160 074641" "20100004570 "20110251523" "2013 0046212" "9987185" "2 0030163068" "2012026 5274" "20140163437" " 20150351999" "517613 0" "20110138556" "201 20109043" "201401287 80" "20150133832" "20 150360024" "20030083 720" "20160121108" "3 467080" "3585990" "79 14523" "20060247742" " 20100049177" "20040 006332" "20050070827 "20140371637").PN.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 12:17 PM
L239	11	((("20210059396") or ("20200237085") or ("20190142691") or ("20180295980") or ("20180185236") or ("20160184162") or ("20150297393") or ("20130085556") or ("20100274162") or	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/07 12:32 PM

L240	155	("20100211136") or ("20100121419")).PN. ("10016337" "10124165 " "10137054" "1025205 1" "10278888" "102857 22" "10307330" "10376 659" "10383486" "1051 1777" "10518097" "106 25093" "10661072" "10 695508" "10737107" "1 0758452" "10821299" " 10857064" "10881577" " "10945915" "1955863" " 20040030325" "200401 47984" "20050043653" " "20070038206" "20070 179573" "20070198004 " "20070213696" "2007 0213698" "2007023914 2" "20070239143" "200 80014011" "200800651 76" "20080103560" "20 080103563" "20080119 913" "20080125835" "2 0080193493" "2008021 5123" "20080275532" " 20090043293" "200902 34338" "20090287195" " "20100121419" "20100 137752" "20100274162 " "20100274329" "2010 0312157" "2011004023 5" "20110106067" "201 10184499" "201200655 55" "20120109041" "20 120310124" "20130012 851" "20130046212" "2 0130060176" "2014012 8780" "20140135798" " 20140219701" "201402 76255" "20140288364" " "20140323927" "20140 336540" "20140378555 " "20150045702" "2015 0100002" "2015011977 1" "20150224020" "201 50265825" "201502830 25" "20150297393" "20 150305969" "20160324 719" "20170049278" "2 0170056685" "2017007 2175" "20170128130" " 20170189670" "201702 02732" "20170238686" " "20180015299" "20180 031090" "20180133470 " "20180168318" "2018 0185236" "2019003108	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 12:35 PM
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L241	155	("10016337" "10124165" "10137054" "10252051" "10278888" "10285722" "10307330" "10376659" "10383486" "10511777" "10518097" "10625093" "10661072" "10695508" "10737107" "10758452" "10821299" "10857064" "10881577" "10945915" "1955863" "20040030325" "20040147984" "20050043653" "20070038206" "20070179573" "20070198004" "20070213696" "20070213698" "20070239142" "20070239143" "20080014011" "20080065176" "20080103560" "20080103563" "20080119913" "20080125835" "2	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:00 PM

		0080193493" "2008021 5123" "20080275532" "20090043293" "200902 34338" "20090287195" "20100121419" "20100 137752" "20100274162 " "20100274329" "2010 0312157" "2011004023 5" "20110106067" "201 10184499" "201200655 55" "20120109041" "20 120310124" "20130012 851" "20130046212" "2 0130060176" "2014012 8780" "20140135798" "20140219701" "201402 76255" "20140288364" "20140323927" "20140 336540" "20140378555 " "20150045702" "2015 0100002" "2015011977 1" "20150224020" "201 50265825" "201502830 25" "20150297393" "20 150305969" "20160324 719" "20170049278" "2 0170056685" "2017007 2175" "20170128130" "20170189670" "201702 02732" "20170238686" "20180015299" "20180 031090" "20180133470 " "20180168318" "2018 0185236" "2019003108 9" "20190240110" "201 90254922" "201902626 07" "20190343712" "20 200038673" "20200086 137" "20200113322" "2 0200129372" "2020017 9220" "20200215351" "20200237085" "202002 37604" "20200253811" "20200268594" "20200 280680" "20200288843 " "20200390468" "2021 0001148" "2021012840 2" "2183726" "4858600" "5103809" "6524329" "6535761" "6743215" "6748266" "6766199" "69 74224" "6980854" "701 0343" "7014639" "7083 580" "7204832" "72586 75" "7282036" "730526 9" "7376460" "7471979" "7532926" "8105322" "8157753" "8182473" "8					
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L242	78	L241 and (thermal\$2 cool cooling cooler cold cooled)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:00 PM
L243	120	(US-20210244611-\$ or US-20210244610-\$ or US-20210059898-\$ or US-20170304145-\$ or US-20150005682-\$ or US-20210128402-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20150297393-\$ or US-20140276255-\$ or US-20180295980-\$ or US-20160184173-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20140142472-\$ or US-20140378555-\$ or US-20110106067-\$ or US-20110098781-\$ or US-20100292746-\$ or US-20100210993-\$ or US-20060058714-\$ or US-20120209357-\$ or US-20030100936-\$ or US-20090234423-\$).did. or (US-20090088824-\$ or US-20080172045-\$ or US-20150150599-\$ or US-20130046212-\$ or US-20110144410-\$ or US-20070185553-\$ or US-20070027411-\$ or US-20050131497-\$ or US-20040260210-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20200170879-\$ or US-20180185236-\$ or US-20210145686-\$ or US-20200179220-\$ or US-	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 01:07 PM

		20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20190142691-\$ or US- 20120265274-\$ or US- 20110060254-\$ or US- 20200237085-\$ or US- 20200237604-\$ or US- 20200187635-\$ or US- 20200093945-\$).did. or (US-20200038673-\$ or US-20200038530-\$ or US-20180193219-\$ or US-20180015299-\$ or US-20170367761-\$ or US-20170238686-\$ or US-20170135894-\$ or US-20200253811-\$ or US-20120109041-\$ or US-20180093106-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150119771-\$ or US-20110009783-\$ or US-20100274162-\$ or US-20100145242-\$ or US-20190388707-\$ or US-20200101312-\$ or US-20200046999-\$ or US-20100211136-\$ or US-20120226268-\$ or US-20070038206-\$ or US-20200397611-\$ or US-20200129327-\$ or US-20200100936-\$ or US-20190290531-\$ or US-20190104774-\$ \$).did. or (US- 20190060159-\$ or US- 20180214304-\$ or US- 20170181924-\$ or US- 20170172834-\$ or US- 20160223269-\$ or US- 20160113836-\$ or US- 20160074275-\$ or US- 20150265457-\$ or US- 20150057579-\$ or US- 20190167330-\$ or US- 20190148617-\$ or US- 20180352934-\$ or US- 20150272774-\$ or US- 20140221880-\$ or US- 20140005759-\$ or US- 20130331914-\$ or US- 20130281893-\$ or US- 20130197405-\$ or US-					
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		20130085556-\$ or US- 20120265108-\$ or US- 20120209363-\$ or US- 20120209154-\$ or US- 20120172771-\$ or US- 20120165708-\$ or US- 20110202048-\$ or US- 20110200381-\$ or US- 20090264971-\$).did. or (US-20080264464-\$ or US-20080188915-\$ or US-20080168605-\$ or US-20080168595-\$ or US-20080141681-\$ or US-20070255187-\$ or US-20200390468-\$ or US-20180133470-\$ or US-20140219701-\$).did. or (US- 10511777-\$ or US- 6221095-\$ or US- 7644589-\$ or US- 6896693-\$).did.					
L244	957	a61f2007/0075.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 01:09 PM
L245	1550	a61f7/00.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 01:09 PM
L246	2332	L244 L245	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/07 01:10 PM
L247	715	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US- 20180149437-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:10 PM

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		20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US-					
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		6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US- 9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US- 6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US- 4846176-\$ or US-					
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		4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$ or US- 8951216-\$ or US- 7927259-\$ or US- 6723060-\$ or US- 6663657-\$ or US- 6599260-\$ or US- 5569168-\$ or US- 4730605-\$ or US- 4150668-\$ or US- 3452226-\$ or US- 7211057-\$ or US- 6896693-\$ or US- 10625093-\$ or US- 10695508-\$ or US- 10383486-\$ or US- 10376659-\$ or US- 10124165-\$).did. or (US-D803572-\$ or US- 9808646-\$ or US- 9585687-\$ or US- D765982-\$ or US- D764173-\$ or US- 9278045-\$ or US- 9272141-\$ or US- D736399-\$ or US- 6766199-\$ or US- 8945104-\$ or US- 8506506-\$ or US- 10881577-\$).did. or (US-3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$ or US- 3154926-\$ or US- 2985166-\$ or US- 2809630-\$ or US- 2477883-\$ or US- 2472385-\$ or US-					
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L248	2082	1380986-\$).did. L246 and (thermal\$2 cool cooling cooler cold cooled) not L247	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:11 PM
L249	634	L248 and (sink heatsink)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:12 PM
L250	1087	L248 and (peltier thermoelectric\$3)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:36 PM
L251	541	L250 not L249	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 01:37 PM
L252	16	((("20210059396") or ("20200237085") or ("20190142691") or ("20180295980") or ("20180185236") or ("20160184162") or ("20150297393") or ("20130085556") or ("20100274162") or ("20100211136") or ("20100121419") or ("10625093") or ("20140219701") or ("20170238686") or ("20150121900") or ("20190336326")).PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/07 02:30 PM
L254	786	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 10:52 AM

		20120117481-\$ or US- 20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US-					
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		20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US-					
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		20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US-					
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		20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$.did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036- \$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US-					
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		20170150810-\$ or US- 20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US-					
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		20200113390-\$ or US- 20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US- 20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US-					
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		20160256017-\$ or US- 20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$ or US-20220039535-\$ or US-20210244170-\$ or US-20050138740-\$ or US-20180027942-\$ or US-20160324373-\$ or US-20150034113-\$ or US-20140356045-\$ or US-20110270274-\$ or US-20040249320-\$ or US-20140371637-\$ or US-20200397611-\$ or US-20200129327-\$ or US-20200100936-\$ or US-20200069936-\$ or US-20200037745-\$ or US-20190290531-\$ or US-20190191937-\$).did. or (US- 20190104774-\$ or US- 20190060159-\$ or US- 20190001503-\$ or US- 20180214304-\$ or US- 20180098615-\$ or US- 20170367471-\$ or US- 20170360648-\$ or US- 20170347789-\$ or US- 20170224098-\$ or US- 20170194849-\$ or US- 20170194848-\$ or US- 20170189227-\$ or US- 20170181924-\$ or US- 20170172834-\$ or US- 20170042386-\$ or US- 20160287034-\$ or US- 20160223269-\$ or US- 20160190902-\$ or US- 20160184176-\$ or US- 20160184171-\$ or US- 20160183671-\$ or US- 20160183670-\$ or US- 20160120375-\$ or US- 20160113836-\$ or US-					
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		20160074275-\$ or US- 20160037902-\$ or US- 20150359324-\$).did. or (US-20150305486-\$ or US-20150265457-\$ or US-20150202114-\$ or US-20150189980-\$ or US-20150173998-\$ or US-20150173996-\$ or US-20150173842-\$ or US-20150165179-\$ or US-20150164733-\$ or US-20150150754-\$ or US-20150141884-\$ or US-20150119962-\$ or US-20150065927-\$ or US-20150057579-\$ or US-20140366288-\$ or US-20140330289-\$ or US-20140305458-\$ or US-20190167330-\$ or US-20190148617-\$ or US-20180352934-\$ or US-20150272774-\$ or US-20140221880-\$ or US-20140005759-\$ or US-20130331914-\$ or US-20130281893-\$ or US-20130197405-\$ or US-20130085556-\$).did. or (US- 20120265108-\$ or US- 20120265106-\$ or US- 20120209363-\$ or US- 20120209154-\$ or US- 20120172771-\$ or US- 20120165708-\$ or US- 20110202048-\$ or US- 20110200381-\$ or US- 20100087762-\$ or US- 20100056964-\$ or US- 20030100936-\$ or US- 20090264971-\$ or US- 20080264464-\$ or US- 20080188915-\$ or US- 20080168605-\$ or US- 20080168595-\$ or US- 20080141681-\$ or US- 20070255187-\$ or US- 20060135911-\$ or US- 20060064147-\$ or US- 20060060184-\$ or US- 20050209663-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20040171970-\$ or US- 20030163176-\$ or US- 20030014096-\$).did. or					
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		(US-20180279843-\$ or US-20180243158-\$ or US-20180008512-\$ or US-20150148592-\$ or US-20130138023-\$ or US-20070150004-\$ or US-20150360024-\$ or US-20160121108-\$ or US-20210001148-\$ or US-20200390468-\$ or US-20200288843-\$ or US-20200280680-\$ or US-20190343712-\$ or US-20180133470-\$ or US-20160324719-\$ or US-20150100002-\$ or US-20140336540-\$ or US-20140323927-\$ or US-20140288364-\$ or US-20140219701-\$ or US-20140135798-\$ or US-20120065555-\$ or US-20080215123-\$ or US-20080193493-\$ or US-20080103560-\$ or US-20080125835-\$ or US-20080065176-\$).did. or (US- 20070038206-\$ or US- 20070179573-\$ or US- 20050043653-\$ or US- 20040030325-\$ or US- 20210338478-\$ or US- 20210113365-\$ or US- 20080077211-\$ or US- 20100280582-\$ or US- 20180042761-\$ or US- 20200289161-\$ or US- 20080077201-\$ or US- 20200129219-\$ or US- 20190350752-\$ or US- 20190343686-\$ or US- 20190254866-\$ or US- 20190240110-\$ or US- 20190175396-\$ or US- 20080269851-\$ or US- 20190125577-\$ or US- 20110313498-\$ or US- 20190110931-\$ or US- 20140303697-\$ or US- 20190009110-\$ or US- 20180289531-\$ or US- 20140303696-\$ or US- 20180153736-\$ or US- 20150112195-\$).did. or (US-20180064574-\$ or US-20170333667-\$ or US-20170196729-\$ or					
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		US-20170035602-\$ or US-20160270951-\$ or US-20160242956-\$ or US-20160178251-\$ or US-20160074210-\$ or US-20140260331-\$ or US-20150182375-\$ or US-20150127077-\$ or US-20150121900-\$ or US-20140358204-\$ or US-20130238043-\$ or US-20120198616-\$ or US-20100198322-\$ or US-20100185267-\$ or US-20090306748-\$ or US-20090093864-\$ or US-20080300529-\$ or US-20080046047-\$ or US-20020091425-\$ or US-20020156509-\$ or US-20220047412-\$ or US-20210290430-\$ or US-20210212883-\$ or US-20210123641-\$).did. or (US- 20200375840-\$ or US- 20200352459-\$ or US- 20200246520-\$ or US- 20150320590-\$ or US- 20190336326-\$ or US- 20190117445-\$ or US- 20160000600-\$ or US- 20100217349-\$ or US- 20100036295-\$ or US- 20070193278-\$).did. or (US-10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US-					
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		7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US-					
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		4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US- 9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US- 6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US-					
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		4846176-\$ or US- 4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$ or US- 8951216-\$ or US- 7927259-\$ or US- 6723060-\$ or US- 6663657-\$ or US- 6599260-\$ or US- 5569168-\$ or US- 4730605-\$ or US- 4150668-\$ or US- 3452226-\$ or US- 7211057-\$ or US- 6896693-\$ or US- 10625093-\$ or US- 10695508-\$ or US- 10383486-\$ or US- 10376659-\$ or US- 10124165-\$).did. or (US-D803572-\$ or US- 9808646-\$ or US- 9585687-\$ or US- D765982-\$ or US- D764173-\$ or US- 9278045-\$ or US- 9272141-\$ or US- D736399-\$ or US- 6766199-\$ or US- 8945104-\$ or US- 8506506-\$ or US- 10881577-\$ or US- 8397518-\$ or US- 6438964-\$ or US- 11241357-\$ or US- 10821297-\$ or US- 9962284-\$ or US- 8523791-\$ or US- 5746702-\$ or US- 5174285-\$ or US- 4741338-\$ or US- 4470263-\$ or US- 3099137-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US-					
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		1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$ or US-2995768-\$ or US-3154926-\$ or US-2985166-\$ or US-2809630-\$ or US-2477883-\$ or US-2472385-\$ or US-1380986-\$).did.					
L255	116	L254 and (sink heatsink)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 10:52 AM
L257	786	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031-\$).did. or (US-20180149437-\$ or US-20170297280-\$ or US-20160367425-\$ or US-20120117481-\$ or US-20030165480-\$ or US-20040037895-\$ or US-20020192231-\$ or US-20200343746-\$ or US-20200289365-\$ or US-20190136889-\$ or US-20190209424-\$ or US-20170027798-\$ or US-20210307998-\$ or US-20200085675-\$ or US-20210283005-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 05:14 PM

		20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US- 20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US-					
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		20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US- 20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US-					
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		20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US- 20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US-					
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		(US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US-20210138260-\$ or US-20200352306-\$ or US-20190388707-\$ or US-20200179713-\$ or US-20200101312-\$ or US-20200046999-\$ or US-20100211136-\$ or US-20140343574-\$ or US-20080140164-\$ or US-20080103563-\$ or US-20050234383-\$ or US-20070106347-\$ or US-20070032843-\$ or US-20060030908-\$ or US-20050065579-\$ or US-20050055070-\$ or US-20040210277-\$ or US-20210022565-\$ or US-20200113390-\$ or US-20170181925-\$ or US-20200085015-\$ or US-20190117503-\$ or US-20190117497-\$ or US-20120226268-\$ or US-20130190845-\$ or US-20190046812-\$ or US-20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or					
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		US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$ or US-20220039535-\$ or US-20210244170-\$ or US-20050138740-\$ or US-20180027942-\$ or US-20160324373-\$ or US-20150034113-\$ or US-20140356045-\$ or US-20110270274-\$ or US-20040249320-\$ or US-20140371637-\$ or US-20200397611-\$ or US-20200129327-\$ or US-20200100936-\$ or US-20200069936-\$ or US-20200037745-\$ or US-20190290531-\$ or US-20190191937-\$ \$.did. or (US- 20190104774-\$ or US- 20190060159-\$ or US- 20190001503-\$ or US- 20180214304-\$ or US- 20180098615-\$ or US- 20170367471-\$ or US- 20170360648-\$ or US- 20170347789-\$ or US- 20170224098-\$ or US- 20170194849-\$ or US- 20170194848-\$ or US- 20170189227-\$ or US- 20170181924-\$ or US- 20170172834-\$ or US- 20170042386-\$ or US- 20160287034-\$ or US- 20160223269-\$ or US- 20160190902-\$ or US- 20160184176-\$ or US- 20160184171-\$ or US- 20160183671-\$ or US- 20160183670-\$ or US- 20160120375-\$ or US- 20160113836-\$ or US- 20160074275-\$ or US- 20160037902-\$ or US- 20150359324-\$).did. or (US-20150305486-\$ or US-20150265457-\$ or US-20150202114-\$ or US-20150189980-\$ or US-20150173998-\$ or US-20150173996-\$ or US-20150173842-\$ or US-20150165179-\$ or US-20150164733-\$ or					
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		5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US- 5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US-					
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		9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US- 9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US- 6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US- 4846176-\$ or US- 4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$ or US- 8951216-\$ or US- 7927259-\$ or US- 6723060-\$ or US- 6663657-\$ or US- 6599260-\$ or US- 5569168-\$ or US-					
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		4730605-\$ or US- 4150668-\$ or US- 3452226-\$ or US- 7211057-\$ or US- 6896693-\$ or US- 10625093-\$ or US- 10695508-\$ or US- 10383486-\$ or US- 10376659-\$ or US- 10124165-\$).did. or (US-D803572-\$ or US- 9808646-\$ or US- 9585687-\$ or US- D765982-\$ or US- D764173-\$ or US- 9278045-\$ or US- 9272141-\$ or US- D736399-\$ or US- 6766199-\$ or US- 8945104-\$ or US- 8506506-\$ or US- 10881577-\$ or US- 8397518-\$ or US- 6438964-\$ or US- 11241357-\$ or US- 10821297-\$ or US- 9962284-\$ or US- 8523791-\$ or US- 5746702-\$ or US- 5174285-\$ or US- 4741338-\$ or US- 4470263-\$ or US- 3099137-\$).did. or (US- 3494353-\$ or US- 3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 3536064-\$ or US- 2512536-\$ or US- 1955623-\$ or US- 1352894-\$ or US- 1339179-\$ or US- 1772501-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 3467080-\$ or US- 2490074-\$ or US- 2424699-\$ or US- 2441682-\$ or US- 2548411-\$ or US- 2995768-\$ or US- 3154926-\$ or US- 2985166-\$ or US- 2809630-\$ or US- 2477883-\$ or US- 2472385-\$ or US-					
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L258	252	1380986-\$).did. L257 and (magnet\$3)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 05:14 PM
L259	2	((("20180185236") or ("20190343686")).PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/09 07:55 PM
L260	250463	a61f\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 07:55 PM
L261	625	L260 and (thermoelectric\$4 peltier) and (heatsink sink) and (recess\$3 cylinder cylindrical\$3 ring)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 07:56 PM
L262	250463	a61f\$.cpc.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 09:17 PM
L263	667	L262 and (thermoelectric\$4 peltier) and (heatsink sink) and (recess\$3 cylinder cylindrical\$3 ring annular)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 09:17 PM
L264	3	((("20210338478") or ("20200352317") or ("20200154874")).PN.	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 10:34 PM
L265	799	(US-20210244611-\$ or US-20210244610-\$ or US-20200352821-\$ or US-20200352820-\$ or US-20210169733-\$ or US-20200069510-\$ or US-20210128399-\$ or US-20210104318-\$ or US-20210059898-\$ or US-20210022955-\$ or US-20200405574-\$ or US-20200214930-\$ or US-20200261307-\$ or US-20200265590-\$ or US-20200261310-\$ or US-20180147800-\$ or US-20190350793-\$ or US-20190017528-\$ or US-20200005469-\$ or US-20160135516-\$ or US-20170076361-\$ or US-20180200141-\$ or US-20190015294-\$ or US-20170364154-\$ or US-20180263845-\$ or US-20180235031- \$).did. or (US- 20180149437-\$ or US- 20170297280-\$ or US- 20160367425-\$ or US- 20120117481-\$ or US-	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 10:49 PM

		20030165480-\$ or US- 20040037895-\$ or US- 20020192231-\$ or US- 20200343746-\$ or US- 20200289365-\$ or US- 20190136889-\$ or US- 20190209424-\$ or US- 20170027798-\$ or US- 20210307998-\$ or US- 20200085675-\$ or US- 20210283005-\$ or US- 20190175434-\$ or US- 20170304145-\$ or US- 20170042754-\$ or US- 20150005682-\$ or US- 20130261516-\$ or US- 20070270727-\$ or US- 20060282025-\$ or US- 20030009116-\$ or US- 20210244609-\$ or US- 20210228437-\$ or US- 20210196563-\$ or US- 20210196562-\$).did. or (US-20210161759-\$ or US-20210128402-\$ or US-20210113427-\$ or US-20210113421-\$ or US-20210077340-\$ or US-20210022951-\$ or US-20210000683-\$ or US-20200393026-\$ or US-20200390644-\$ or US-20200357046-\$ or US-20190254921-\$ or US-20200315904-\$ or US-20200289364-\$ or US-20200276079-\$ or US-20200268594-\$ or US-20200261306-\$ or US-20200230012-\$ or US-20200155410-\$ or US-20200113322-\$ or US-20200000678-\$ or US-20190365598-\$ or US-20190262222-\$ or US-20190247271-\$ or US-20190159961-\$ or US-20160045081-\$ or US-20160184175-\$ or US-20180031090-\$).did. or (US- 20180031089-\$ or US- 20170304144-\$ or US- 20140031866-\$ or US- 20170049278-\$ or US- 20160184177-\$ or US- 20160113840-\$ or US- 20150265825-\$ or US-					
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		20150174387-\$ or US- 20140188169-\$ or US- 20090236359-\$ or US- 20100137907-\$ or US- 20030158505-\$ or US- 20050222525-\$ or US- 20050187498-\$ or US- 20020082532-\$ or US- 20020082536-\$ or US- 20210259915-\$ or US- 20210186800-\$ or US- 20210177692-\$ or US- 20200330321-\$ or US- 20140194900-\$ or US- 20210100718-\$ or US- 20200390645-\$ or US- 20190254922-\$ or US- 20200222263-\$ or US- 20160213558-\$ or US- 20180050440-\$).did. or (US-20050131461-\$ or US-20050075591-\$ or US-20200009010-\$ or US-20190247270-\$ or US-20160151238-\$ or US-20150297393-\$ or US-20150283026-\$ or US-20140276255-\$ or US-20140194790-\$ or US-20120253245-\$ or US-20180295980-\$ or US-20170189670-\$ or US-20160206087-\$ or US-20160184173-\$ or US-20160184162-\$ or US-20150333609-\$ or US-20150182290-\$ or US-20110040235-\$ or US-20090222072-\$ or US-20090163984-\$ or US-20070206986-\$ or US-20040147984-\$ or US-20040024438-\$ or US-20200086137-\$ or US-20150305969-\$ or US-20140378555-\$ or US-20130060176-\$).did. or (US- 20110184499-\$ or US- 20110106067-\$ or US- 20110098781-\$ or US- 20100292746-\$ or US- 20100210993-\$ or US- 20100121419-\$ or US- 20100049177-\$ or US- 20090177125-\$ or US- 20060058714-\$ or US- 20080119913-\$ or US-					
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		20060253051-\$ or US- 20050075149-\$ or US- 20120209357-\$ or US- 20120121309-\$ or US- 20110092863-\$ or US- 20110091265-\$ or US- 20090287195-\$ or US- 20090234423-\$ or US- 20090088824-\$ or US- 20090048557-\$ or US- 20080172045-\$ or US- 20080154162-\$ or US- 20080014011-\$ or US- 20160158568-\$ or US- 20150150599-\$ or US- 20150045702-\$ or US- 20140194668-\$).did. or (US-20140128780-\$ or US-20130046212-\$ or US-20130030506-\$ or US-20110144410-\$ or US-20110032960-\$ or US-20100179456-\$ or US-20100081858-\$ or US-20090270779-\$ or US-20090005631-\$ or US-20080214968-\$ or US-20070185553-\$ or US-20070073366-\$ or US-20070073198-\$ or US-20070027411-\$ or US-20060047330-\$ or US-20050131497-\$ or US-20050070977-\$ or US-20050045189-\$ or US-20040260210-\$ or US-20040030370-\$ or US-20210275224-\$ or US-20210059396-\$ or US-20080262394-\$ or US-20090299236-\$ or US-20200170879-\$ or US-20190209425-\$ or US-20190142689-\$).did. or (US- 20180185236-\$ or US- 20170360652-\$ or US- 20170319429-\$ or US- 20170128130-\$ or US- 20160256348-\$ or US- 20140142472-\$ or US- 20050142093-\$ or US- 20050107724-\$ or US- 20030004441-\$ or US- 20210145686-\$ or US- 20210038472-\$ or US- 20200179220-\$ or US- 20200129372-\$ or US-					
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		20190262607-\$ or US- 20200154874-\$ or US- 20160228184-\$ or US- 20100274329-\$ or US- 20100137752-\$ or US- 20030163068-\$ or US- 20190142691-\$ or US- 20180360203-\$ or US- 20180256439-\$ or US- 20180178032-\$ or US- 20180140860-\$ or US- 20150283025-\$ or US- 20140088668-\$ or US- 20130131559-\$.did. or (US-20120265274-\$ or US-20110060254-\$ or US-20080275532-\$ or US-20080018167-\$ or US-20060235341-\$ or US-20090270915-\$ or US-20060293711-\$ or US-20200237085-\$ or US-20160192814-\$ or US-20210045521-\$ or US-20200411161-\$ or US-20200405047-\$ or US-20200352317-\$ or US-20200323337-\$ or US-20200237604-\$ or US-20200187635-\$ or US-20200170399-\$ or US-20200093945-\$ or US-20200093252-\$ or US-20200085684-\$ or US-20200038673-\$ or US-20200038530-\$ or US-20200037747-\$ or US-20200037746-\$ or US-20200000294-\$ or US-20200000293-\$ or US-20190298036- \$).did. or (US- 20190126061-\$ or US- 20190029411-\$ or US- 20190014899-\$ or US- 20190008332-\$ or US- 20180361437-\$ or US- 20180288160-\$ or US- 20180279762-\$ or US- 20180193219-\$ or US- 20180015299-\$ or US- 20170367761-\$ or US- 20170367543-\$ or US- 20170238686-\$ or US- 20170188695-\$ or US- 20170172837-\$ or US- 20170150851-\$ or US- 20170150810-\$ or US-					
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		20170135894-\$ or US- 20170119144-\$ or US- 20170071321-\$ or US- 20170035649-\$ or US- 20160339218-\$ or US- 20160331106-\$ or US- 20160183743-\$ or US- 20200253811-\$ or US- 20180169682-\$ or US- 20180168318-\$ or US- 20170049212-\$).did. or (US-20150327653-\$ or US-20130317416-\$ or US-20120207532-\$ or US-20120109041-\$ or US-20120024308-\$ or US-20030180690-\$ or US-20180093106-\$ or US-20170056685-\$ or US-20160339219-\$ or US-20160331308-\$ or US-20150360014-\$ or US-20150224020-\$ or US-20150182415-\$ or US-20150119771-\$ or US-20140202493-\$ or US-20120165710-\$ or US-20120037184-\$ or US-20110009783-\$ or US-20060211961-\$ or US-20040082983-\$ or US-20160074641-\$ or US-20160015150-\$ or US-20150305487-\$ or US-20120136289-\$ or US-20120065556-\$ or US-20100274162-\$ or US-20100145242-\$).did. or (US- 20210138260-\$ or US- 20200352306-\$ or US- 20190388707-\$ or US- 20200179713-\$ or US- 20200101312-\$ or US- 20200046999-\$ or US- 20100211136-\$ or US- 20140343574-\$ or US- 20080140164-\$ or US- 20080103563-\$ or US- 20050234383-\$ or US- 20070106347-\$ or US- 20070032843-\$ or US- 20060030908-\$ or US- 20050065579-\$ or US- 20050055070-\$ or US- 20040210277-\$ or US- 20210022565-\$ or US- 20200113390-\$ or US-					
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		20170181925-\$ or US- 20200085015-\$ or US- 20190117503-\$ or US- 20190117497-\$ or US- 20120226268-\$ or US- 20130190845-\$ or US- 20190046812-\$ or US- 20110034837-\$).did. or (US-20170164876-\$ or US-20150290076-\$ or US-20150205279-\$ or US-20070217199-\$ or US-20070213698-\$ or US-20210322257-\$ or US-20170007498-\$ or US-20210121360-\$ or US-20200281805-\$ or US-20200046602-\$ or US-20200093410-\$ or US-20140046127-\$ or US-20150005679-\$ or US-20170156974-\$ or US-20180361137-\$ or US-20180185238-\$ or US-20180140813-\$ or US-20180104144-\$ or US-20170202732-\$ or US-20170095689-\$ or US-20170079865-\$ or US-20170065480-\$ or US-20160324717-\$ or US-20160271009-\$ or US-20160175185-\$ or US-20160045393-\$ or US-20150045192-\$).did. or (US- 20100331745-\$ or US- 20090306561-\$ or US- 20060025710-\$ or US- 20030195443-\$ or US- 20040193079-\$ or US- 20030149381-\$ or US- 20030014079-\$ or US- 20140194794-\$ or US- 20150320636-\$ or US- 20150313638-\$ or US- 20080082028-\$ or US- 20070244416-\$ or US- 20060052729-\$ or US- 20060009719-\$ or US- 20050137504-\$ or US- 20210196557-\$ or US- 20210195713-\$ or US- 20200215350-\$ or US- 20180242711-\$ or US- 20180092449-\$ or US- 20160270821-\$ or US- 20160256017-\$ or US-					
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		20160128461-\$ or US- 20150257521-\$ or US- 20150182078-\$ or US- 20140309662-\$ or US- 20110041864-\$).did. or (US-20100222719-\$ or US-20080167590-\$ or US-20080172112-\$ or US-20080125682-\$ or US-20060276731-\$ or US-20060276730-\$ or US-20060135319-\$ or US-20050278876-\$ or US-20050277950-\$ or US-20120310124-\$ or US-20220039535-\$ or US-20210244170-\$ or US-20050138740-\$ or US-20180027942-\$ or US-20160324373-\$ or US-20150034113-\$ or US-20140356045-\$ or US-20110270274-\$ or US-20040249320-\$ or US-20140371637-\$ or US-20200397611-\$ or US-20200129327-\$ or US-20200100936-\$ or US-20200069936-\$ or US-20200037745-\$ or US-20190290531-\$ or US-20190191937-\$ \$).did. or (US- 20190104774-\$ or US- 20190060159-\$ or US- 20190001503-\$ or US- 20180214304-\$ or US- 20180098615-\$ or US- 20170367471-\$ or US- 20170360648-\$ or US- 20170347789-\$ or US- 20170224098-\$ or US- 20170194849-\$ or US- 20170194848-\$ or US- 20170189227-\$ or US- 20170181924-\$ or US- 20170172834-\$ or US- 20170042386-\$ or US- 20160287034-\$ or US- 20160223269-\$ or US- 20160190902-\$ or US- 20160184176-\$ or US- 20160184171-\$ or US- 20160183671-\$ or US- 20160183670-\$ or US- 20160120375-\$ or US- 20160113836-\$ or US- 20160074275-\$ or US-					
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		20160037902-\$ or US- 20150359324-\$).did. or (US-20150305486-\$ or US-20150265457-\$ or US-20150202114-\$ or US-20150189980-\$ or US-20150173998-\$ or US-20150173996-\$ or US-20150173842-\$ or US-20150165179-\$ or US-20150164733-\$ or US-20150150754-\$ or US-20150141884-\$ or US-20150119962-\$ or US-20150065927-\$ or US-20150057579-\$ or US-20140366288-\$ or US-20140330289-\$ or US-20140305458-\$ or US-20190167330-\$ or US-20190148617-\$ or US-20180352934-\$ or US-20150272774-\$ or US-20140221880-\$ or US-20140005759-\$ or US-20130331914-\$ or US-20130281893-\$ or US-20130197405-\$ or US-20130085556-\$).did. or (US- 20120265108-\$ or US- 20120265106-\$ or US- 20120209363-\$ or US- 20120209154-\$ or US- 20120172771-\$ or US- 20120165708-\$ or US- 20110202048-\$ or US- 20110200381-\$ or US- 20100087762-\$ or US- 20100056964-\$ or US- 20030100936-\$ or US- 20090264971-\$ or US- 20080264464-\$ or US- 20080188915-\$ or US- 20080168605-\$ or US- 20080168595-\$ or US- 20080141681-\$ or US- 20070255187-\$ or US- 20060135911-\$ or US- 20060064147-\$ or US- 20060060184-\$ or US- 20050209663-\$ or US- 20050209537-\$ or US- 20050203445-\$ or US- 20040171970-\$ or US- 20030163176-\$ or US- 20030014096-\$).did. or (US-20180279843-\$ or					
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		US-20180243158-\$ or US-20180008512-\$ or US-20150148592-\$ or US-20130138023-\$ or US-20070150004-\$ or US-20150360024-\$ or US-20160121108-\$ or US-20210001148-\$ or US-20200390468-\$ or US-20200288843-\$ or US-20200280680-\$ or US-20190343712-\$ or US-20180133470-\$ or US-20160324719-\$ or US-20150100002-\$ or US-20140336540-\$ or US-20140323927-\$ or US-20140288364-\$ or US-20140219701-\$ or US-20140135798-\$ or US-20120065555-\$ or US-20080215123-\$ or US-20080193493-\$ or US-20080103560-\$ or US-20080125835-\$ or US-20080065176-\$).did. or (US- 20070038206-\$ or US- 20070179573-\$ or US- 20050043653-\$ or US- 20040030325-\$ or US- 20210338478-\$ or US- 20210113365-\$ or US- 20080077211-\$ or US- 20100280582-\$ or US- 20180042761-\$ or US- 20200289161-\$ or US- 20080077201-\$ or US- 20200129219-\$ or US- 20190350752-\$ or US- 20190343686-\$ or US- 20190254866-\$ or US- 20190240110-\$ or US- 20190175396-\$ or US- 20080269851-\$ or US- 20190125577-\$ or US- 20110313498-\$ or US- 20190110931-\$ or US- 20140303697-\$ or US- 20190009110-\$ or US- 20180289531-\$ or US- 20140303696-\$ or US- 20180153736-\$ or US- 20150112195-\$).did. or (US-20180064574-\$ or US-20170333667-\$ or US-20170196729-\$ or US-20170035602-\$ or					
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		US-20160270951-\$ or US-20160242956-\$ or US-20160178251-\$ or US-20160074210-\$ or US-20140260331-\$ or US-20150182375-\$ or US-20150127077-\$ or US-20150121900-\$ or US-20140358204-\$ or US-20130238043-\$ or US-20120198616-\$ or US-20100198322-\$ or US-20100185267-\$ or US-20090306748-\$ or US-20090093864-\$ or US-20080300529-\$ or US-20080046047-\$ or US-20020091425-\$ or US-20020156509-\$ or US-20220047412-\$ or US-20210290430-\$ or US-20210212883-\$ or US-20210123641-\$).did. or (US- 20200375840-\$ or US- 20200352459-\$ or US- 20200246520-\$ or US- 20150320590-\$ or US- 20190336326-\$ or US- 20190117445-\$ or US- 20160000600-\$ or US- 20100217349-\$ or US- 20100036295-\$ or US- 20070193278-\$ or US- 20120316624-\$ or US- 20210128058-\$ or US- 20050193742-\$ or US- 20080015545-\$ or US- 20050277974-\$ or US- 20050005626-\$ or US- 20040111086-\$).did. or (US-10714953-\$ or US- 6965375-\$ or US- 6245890-\$ or US- 7425947-\$ or US- 10945915-\$ or US- 10940081-\$ or US- 10702448-\$ or US- 10758452-\$ or US- 10617588-\$ or US- 10959911-\$ or US- 10470970-\$ or US- 10959908-\$ or US- 8372111-\$ or US- 7435232-\$ or US- 4669452-\$ or US- 3993052-\$ or US- 3494353-\$ or US-					
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		3169521-\$ or US- 2078159-\$ or US- 1660821-\$ or US- 1657765-\$ or US- 1545027-\$ or US- 10314762-\$ or US- 7273159-\$ or US- 6682496-\$ or US- 10806660-\$).did. or (US-10993874-\$ or US- 10426691-\$ or US- 9839572-\$ or US- 6352518-\$ or US- 6228042-\$ or US- 5951501-\$ or US- 5593381-\$ or US- 5300095-\$ or US- 5167226-\$ or US- 5088474-\$ or US- 5085207-\$ or US- 4827914-\$ or US- 4566442-\$ or US- 4565189-\$ or US- 4513737-\$ or US- 4495940-\$ or US- 4088128-\$ or US- 4079733-\$ or US- 3837335-\$ or US- 3626934-\$ or US- 1955623-\$ or US- 10428850-\$ or US- D912835-\$ or US- 11090222-\$ or US- 10357425-\$ or US- 10857064-\$ or US- 10847984-\$).did. or (US-10842703-\$ or US- 10682281-\$ or US- 7695207-\$ or US- 4858600-\$ or US- 1772501-\$ or US- 11122206-\$ or US- 10511777-\$ or US- 6443915-\$ or US- 7896908-\$ or US- 7014639-\$ or US- 6010264-\$ or US- 5698866-\$ or US- 5363045-\$ or US- 5358503-\$ or US- 5176130-\$ or US- 2183726-\$ or US- 1228669-\$ or US- 9126034-\$ or US- 8936542-\$ or US- 6461377-\$ or US- 6123657-\$ or US- 6001055-\$ or US-					
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		5632720-\$ or US- 5382222-\$ or US- 5662593-\$ or US- 5131384-\$ or US- 4326508-\$).did. or (US- 4841955-\$ or US- 4549535-\$ or US- 6432036-\$ or US- 9456678-\$ or US- 10722424-\$ or US- 9504826-\$ or US- 9278230-\$ or US- 9084587-\$ or US- 8620451-\$ or US- 2490074-\$ or US- 5103809-\$ or US- 3710785-\$ or US- 9782604-\$ or US- 9592405-\$ or US- 7479136-\$ or US- 6702837-\$ or US- 6019482-\$ or US- 5551949-\$ or US- 6875225-\$ or US- 6974224-\$ or US- 6524329-\$ or US- 6221095-\$ or US- 4561440-\$ or US- 7384405-\$ or US- 10272011-\$ or US- 5067480-\$ or US- 4716890-\$).did. or (US- 11076685-\$ or US- 10966514-\$ or US- 9386843-\$ or US- 5725483-\$ or US- 5647841-\$ or US- 4203431-\$ or US- 4397055-\$ or US- 8028707-\$ or US- 7793419-\$ or US- 3699952-\$ or US- 2548411-\$ or US- 9801448-\$ or US- 7063476-\$ or US- 5073058-\$ or US- 4991749-\$ or US- 4930923-\$ or US- 4883380-\$ or US- 4723860-\$ or US- 4171171-\$ or US- D897110-\$ or US- 10307330-\$ or US- 9132031-\$ or US- 8864401-\$ or US- 7959369-\$ or US- 7644589-\$ or US- 6416534-\$ or US-					
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		6336907-\$).did. or (US- 6090085-\$ or US- 6017337-\$ or US- 5800490-\$ or US- 5690608-\$ or US- 4920956-\$ or US- 4846176-\$ or US- 4745909-\$ or US- 4640284-\$ or US- 4502469-\$ or US- 3382866-\$ or US- 3154926-\$ or US- 8951216-\$ or US- 7927259-\$ or US- 6723060-\$ or US- 6663657-\$ or US- 6599260-\$ or US- 5569168-\$ or US- 4730605-\$ or US- 4150668-\$ or US- 3452226-\$ or US- 7211057-\$ or US- 6896693-\$ or US- 10625093-\$ or US- 10695508-\$ or US- 10383486-\$ or US- 10376659-\$ or US- 10124165-\$).did. or (US-D803572-\$ or US- 9808646-\$ or US- 9585687-\$ or US- D765982-\$ or US- D764173-\$ or US- 9278045-\$ or US- 9272141-\$ or US- D736399-\$ or US- 6766199-\$ or US- 8945104-\$ or US- 8506506-\$ or US- 10881577-\$ or US- 8397518-\$ or US- 6438964-\$ or US- 11241357-\$ or US- 10821297-\$ or US- 9962284-\$ or US- 8523791-\$ or US- 5746702-\$ or US- 5174285-\$ or US- 4741338-\$ or US- 4470263-\$ or US- 3099137-\$ or US- 7559907-\$ or US- 7204041-\$ or US- 5895418-\$ or US- 5097828-\$).did. or (US- 4614191-\$ or US- 4519389-\$).did. or (US- 3494353-\$ or US-					
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		3169521-\$ or US-2078159-\$ or US-1660821-\$ or US-1657765-\$ or US-1545027-\$ or US-3536064-\$ or US-2512536-\$ or US-1955623-\$ or US-1352894-\$ or US-1339179-\$ or US-1772501-\$ or US-2183726-\$ or US-1228669-\$ or US-3467080-\$ or US-2490074-\$ or US-2424699-\$ or US-2441682-\$ or US-2548411-\$ or US-2995768-\$ or US-3154926-\$ or US-2985166-\$ or US-2809630-\$ or US-2477883-\$ or US-2472385-\$ or US-1380986-\$).did.					
L266	102	L265 and (washer o?ring gasket)	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/04/09 10:50 PM
L267	20	(US-20210338478-\$ or US-20200352317-\$ or US-20200352306-\$ or US-20200253811-\$ or US-20200237085-\$ or US-20200154874-\$ or US-20200093945-\$ or US-20190388707-\$ or US-20190343686-\$ or US-20190290531-\$ or US-20190142691-\$ or US-20180295980-\$ or US-20180185236-\$ or US-20170304145-\$ or US-20160184162-\$ or US-20150121900-\$ or US-20140371637-\$ or US-20140358204-\$ or US-20130085556-\$).did. or (US-5097828-\$).did.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:33 PM
L268	3168	a61h23/00,02,06.cpc.	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:39 PM
L269	4	L265 and (male female) with (electric\$4) with (contact pin connect\$4)	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:44 PM
L270	4	L265 and (male female) with (electric\$4) with (contact pin connect\$4)	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:44 PM

L271	401	terminal) L265 and (male female electric\$4) near5 (plug contact pin connect\$4 terminal)	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:46 PM
L272	50	L265 and (male female mating mated mateable plug\$4) with (electric\$4) with (contact pin connect\$4 terminal)	(US-PGPUB; USPAT)	OR	ON	ON	2022/04/09 11:50 PM
L274	1	("20190343686").PN.	(US-PGPUB; USPAT; USOCR)	OR	OFF	OFF	2022/04/22 04:01 PM
L275	800	((US-20210244611-A1 OR US-20210244610-A1 OR US-20200352821-A1 OR US-20200352820-A1 OR US-20210169733-A1 OR US-20200069510-A1 OR US-20210128399-A1 OR US-20210104318-A1 OR US-20210059898-A1 OR US-20210022955-A1 OR US-20200405574-A1 OR US-20200214930-A1 OR US-20200261307-A1 OR US-20200265590-A1 OR US-20200261310-A1 OR US-20180147800-A1 OR US-20190350793-A1 OR US-20190017528-A1 OR US-20200005469-A1 OR US-20160135516-A1 OR US-20170076361-A1 OR US-20180200141-A1 OR US-20190015294-A1 OR US-20170364154-A1 OR US-20180263845-A1 OR US-20180235031-A1 OR US-20180149437-A1 OR US-20170297280-A1 OR US-20160367425-A1 OR US-20120117481-A1 OR US-20030165480-A1 OR US-20040037895-A1 OR US-20020192231-A1 OR US-20200343746-A1	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:39 PM

		OR US-20200289365-A1 OR US-20190136889-A1 OR US-20190209424-A1 OR US-20170027798-A1 OR US-20210307998-A1 OR US-20200085675-A1 OR US-20210283005-A1 OR US-20190175434-A1 OR US-20170304145-A1 OR US-20170042754-A1 OR US-20150005682-A1 OR US-20130261516-A1 OR US-20070270727-A1 OR US-20060282025-A1 OR US-20030009116-A1 OR US-20210244609-A1 OR US-20210228437-A1 OR US-20210196563-A1 OR US-20210196562-A1 OR US-20210161759-A1 OR US-20210128402-A1 OR US-20210113427-A1 OR US-20210113421-A1 OR US-20210077340-A1 OR US-20210022951-A1 OR US-20210000683-A1 OR US-20200393026-A1 OR US-20200390644-A1 OR US-20200357046-A1 OR US-20190254921-A1 OR US-20200315904-A1 OR US-20200289364-A1 OR US-20200276079-A1 OR US-20200268594-A1 OR US-20200261306-A1 OR US-20200230012-A1 OR US-20200155410-A1 OR US-20200113322-A1 OR US-20200000678-A1 OR US-20190365598-A1 OR US-20190262222-A1 OR US-20190247271-A1 OR US-20190159961-A1 OR US-					
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		OR US-20160184162-A1 OR US-20150333609-A1 OR US-20150182290-A1 OR US-20110040235-A1 OR US-20090222072-A1 OR US-20090163984-A1 OR US-20070206986-A1 OR US-20040147984-A1 OR US-20040024438-A1 OR US-20200086137-A1 OR US-20150305969-A1 OR US-20140378555-A1 OR US-20130060176-A1 OR US-20110184499-A1 OR US-20110106067-A1 OR US-20110098781-A1 OR US-20100292746-A1 OR US-20100210993-A1 OR US-20100121419-A1 OR US-20100049177-A1 OR US-20090177125-A1 OR US-20060058714-A1 OR US-20080119913-A1 OR US-20060253051-A1 OR US-20050075149-A1 OR US-20120209357-A1 OR US-20120121309-A1 OR US-20110092863-A1 OR US-20110091265-A1 OR US-20090287195-A1 OR US-20090234423-A1 OR US-20090088824-A1 OR US-20090048557-A1 OR US-20080172045-A1 OR US-20080154162-A1 OR US-20080014011-A1 OR US-20160158568-A1 OR US-20150150599-A1 OR US-20150045702-A1 OR US-20140194668-A1 OR US-20140128780-A1 OR US-20130046212-A1 OR US-20130030506-A1 OR US-					
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		20110144410-A1 OR US-20110032960-A1 OR US-20100179456- A1 OR US- 20100081858-A1 OR US-20090270779-A1 OR US-20090005631- A1 OR US- 20080214968-A1 OR US-20070185553-A1 OR US-20070073366- A1 OR US- 20070073198-A1 OR US-20070027411-A1 OR US-20060047330- A1 OR US- 20050131497-A1 OR US-20050070977-A1 OR US-20050045189- A1 OR US- 20040260210-A1 OR US-20040030370-A1 OR US-20210275224- A1 OR US- 20210059396-A1 OR US-20080262394-A1 OR US-20090299236- A1 OR US- 20200170879-A1 OR US-20190209425-A1 OR US-20190142689- A1 OR US- 20180185236-A1 OR US-20170360652-A1 OR US-20170319429- A1 OR US- 20170128130-A1 OR US-20160256348-A1 OR US-20140142472- A1 OR US- 20050142093-A1 OR US-20050107724-A1 OR US-20030004441- A1 OR US- 20210145686-A1 OR US-20210038472-A1 OR US-20200179220- A1 OR US- 20200129372-A1 OR US-20190262607-A1 OR US-20200154874- A1 OR US- 20160228184-A1 OR US-20100274329-A1 OR US-20100137752- A1 OR US- 20030163068-A1 OR US-20190142691-A1					
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		OR US-20180360203-A1 OR US-20180256439-A1 OR US-20180178032-A1 OR US-20180140860-A1 OR US-20150283025-A1 OR US-20140088668-A1 OR US-20130131559-A1 OR US-20120265274-A1 OR US-20110060254-A1 OR US-20080275532-A1 OR US-20080018167-A1 OR US-20060235341-A1 OR US-20090270915-A1 OR US-20060293711-A1 OR US-20200237085-A1 OR US-20160192814-A1 OR US-20210045521-A1 OR US-20200411161-A1 OR US-20200405047-A1 OR US-20200352317-A1 OR US-20200323337-A1 OR US-20200237604-A1 OR US-20200187635-A1 OR US-20200170399-A1 OR US-20200093945-A1 OR US-20200093252-A1 OR US-20200085684-A1 OR US-20200038673-A1 OR US-20200038530-A1 OR US-20200037747-A1 OR US-20200037746-A1 OR US-20200000294-A1 OR US-20200000293-A1 OR US-20190298036-A1 OR US-20190126061-A1 OR US-20190029411-A1 OR US-20190014899-A1 OR US-20190008332-A1 OR US-20180361437-A1 OR US-20180288160-A1 OR US-20180279762-A1 OR US-20180193219-A1 OR US-20180015299-A1 OR US-					
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		20170367761-A1 OR US-20170367543-A1 OR US-20170238686-A1 OR US- 20170188695-A1 OR US-20170172837-A1 OR US-20170150851-A1 OR US- 20170150810-A1 OR US-20170135894-A1 OR US-20170119144-A1 OR US- 20170071321-A1 OR US-20170035649-A1 OR US-20160339218-A1 OR US- 20160331106-A1 OR US-20160183743-A1 OR US-20200253811-A1 OR US- 20180169682-A1 OR US-20180168318-A1 OR US-20170049212-A1 OR US- 20150327653-A1 OR US-20130317416-A1 OR US-20120207532-A1 OR US- 20120109041-A1 OR US-20120024308-A1 OR US-20030180690-A1 OR US- 20180093106-A1 OR US-20170056685-A1 OR US-20160339219-A1 OR US- 20160331308-A1 OR US-20150360014-A1 OR US-20150224020-A1 OR US- 20150182415-A1 OR US-20150119771-A1 OR US-20140202493-A1 OR US- 20120165710-A1 OR US-20120037184-A1 OR US-20110009783-A1 OR US- 20060211961-A1 OR US-20040082983-A1 OR US-20160074641-A1 OR US- 20160015150-A1 OR US-20150305487-A1 OR US-20120136289-A1 OR US- 20120065556-A1 OR US-20100274162-A1					
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		20180185238-A1 OR US-20180140813-A1 OR US-20180104144-A1 OR US- 20170202732-A1 OR US-20170095689-A1 OR US-20170079865-A1 OR US- 20170065480-A1 OR US-20160324717-A1 OR US-20160271009-A1 OR US- 20160175185-A1 OR US-20160045393-A1 OR US-20150045192-A1 OR US- 20100331745-A1 OR US-20090306561-A1 OR US-20060025710-A1 OR US- 20030195443-A1 OR US-20040193079-A1 OR US-20030149381-A1 OR US- 20030014079-A1 OR US-20140194794-A1 OR US-20150320636-A1 OR US- 20150313638-A1 OR US-20080082028-A1 OR US-20070244416-A1 OR US- 20060052729-A1 OR US-20060009719-A1 OR US-20050137504-A1 OR US- 20210196557-A1 OR US-20210195713-A1 OR US-20200215350-A1 OR US- 20180242711-A1 OR US-20180092449-A1 OR US-20160270821-A1 OR US- 20160256017-A1 OR US-20160128461-A1 OR US-20150257521-A1 OR US- 20150182078-A1 OR US-20140309662-A1 OR US-20110041864-A1 OR US- 20100222719-A1 OR US-20080167590-A1 OR US-20080172112-A1 OR US- 20080125682-A1 OR US-20060276731-A1					
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		OR US-20030100936-A1 OR US-20090264971-A1 OR US-20080264464-A1 OR US-20080188915-A1 OR US-20080168605-A1 OR US-20080168595-A1 OR US-20080141681-A1 OR US-20070255187-A1 OR US-20060135911-A1 OR US-20060064147-A1 OR US-20060060184-A1 OR US-20050209663-A1 OR US-20050209537-A1 OR US-20050203445-A1 OR US-20040171970-A1 OR US-20030163176-A1 OR US-20030014096-A1 OR US-20180279843-A1 OR US-20180243158-A1 OR US-20180008512-A1 OR US-20150148592-A1 OR US-20130138023-A1 OR US-20070150004-A1 OR US-20150360024-A1 OR US-20160121108-A1 OR US-20210001148-A1 OR US-20200390468-A1 OR US-20200288843-A1 OR US-20200280680-A1 OR US-20190343712-A1 OR US-20180133470-A1 OR US-20160324719-A1 OR US-20150100002-A1 OR US-20140336540-A1 OR US-20140323927-A1 OR US-20140288364-A1 OR US-20140219701-A1 OR US-20140135798-A1 OR US-20120065555-A1 OR US-20080215123-A1 OR US-20080193493-A1 OR US-20080103560-A1 OR US-20080125835-A1 OR US-					
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		20080065176-A1 OR US-20070038206-A1 OR US-20070179573-A1 OR US- 20050043653-A1 OR US-20040030325-A1 OR US-20210338478-A1 OR US- 20210113365-A1 OR US-20080077211-A1 OR US-20100280582-A1 OR US- 20180042761-A1 OR US-20200289161-A1 OR US-20080077201-A1 OR US- 20200129219-A1 OR US-20190350752-A1 OR US-20190343686-A1 OR US- 20190254866-A1 OR US-20190240110-A1 OR US-20190175396-A1 OR US- 20080269851-A1 OR US-20190125577-A1 OR US-20110313498-A1 OR US- 20190110931-A1 OR US-20140303697-A1 OR US-20190009110-A1 OR US- 20180289531-A1 OR US-20140303696-A1 OR US-20180153736-A1 OR US- 20150112195-A1 OR US-20180064574-A1 OR US-20170333667-A1 OR US- 20170196729-A1 OR US-20170035602-A1 OR US-20160270951-A1 OR US- 20160242956-A1 OR US-20160178251-A1 OR US-20160074210-A1 OR US- 20140260331-A1 OR US-20150182375-A1 OR US-20150127077-A1 OR US- 20150121900-A1 OR US-20140358204-A1 OR US-20130238043-A1 OR US- 20120198616-A1 OR US-20100198322-A1					
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		OR US-20100185267-A1 OR US-20090306748-A1 OR US-20090093864-A1 OR US-20080300529-A1 OR US-20080046047-A1 OR US-20020091425-A1 OR US-20020156509-A1 OR US-20220047412-A1 OR US-20210290430-A1 OR US-20210212883-A1 OR US-20210123641-A1 OR US-20200375840-A1 OR US-20200352459-A1 OR US-20200246520-A1 OR US-20150320590-A1 OR US-20190336326-A1 OR US-20190117445-A1 OR US-20160000600-A1 OR US-20100217349-A1 OR US-20100036295-A1 OR US-20070193278-A1 OR US-20120316624-A1 OR US-20210128058-A1 OR US-20050193742-A1 OR US-20080015545-A1 OR US-20050277974-A1 OR US-20050005626-A1 OR US-20040111086-A1).did. AND PGPB.dbnm.) OR ((US-10714953-B1 OR US-6965375-B1 OR US-6245890-B1 OR US-7425947-B1 OR US-10945915-B2 OR US-10940081-B2 OR US-10702448-B2 OR US-10758452-B2 OR US-10617588-B2 OR US-10959911-B2 OR US-10470970-B2 OR US-10959908-B2 OR US-8372111-B2 OR US-7435232-B2 OR US-4669452-A OR US-3993052-A OR US-3494353-A OR US-3169521-A OR US-2078159-A OR US-					
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		1660821-A OR US- 1657765-A OR US- 1545027-A OR US- 10314762-B1 OR US- 7273159-B2 OR US- 6682496-B1 OR US- 10806660-B1 OR US- 10993874-B1 OR US- 10426691-B2 OR US- 9839572-B2 OR US- 6352518-B1 OR US- 6228042-B1 OR US- 5951501-A OR US- 5593381-A OR US- 5300095-A OR US- 5167226-A OR US- 5088474-A OR US- 5085207-A OR US- 4827914-A OR US- 4566442-A OR US- 4565189-A OR US- 4513737-A OR US- 4495940-A OR US- 4088128-A OR US- 4079733-A OR US- 3837335-A OR US- 3626934-A OR US- 1955623-A OR US- 10428850-B2 OR US- D912835-S OR US- 11090222-B2 OR US- 10357425-B2 OR US- 10857064-B2 OR US- 10847984-B2 OR US- 10842703-B2 OR US- 10682281-B2 OR US- 7695207-B1 OR US- 4858600-A OR US- 1772501-A OR US- 11122206-B2 OR US- 10511777-B2 OR US- 6443915-B1 OR US- 7896908-B2 OR US- 7014639-B2 OR US- 6010264-A OR US- 5698866-A OR US- 5363045-A OR US- 5358503-A OR US- 5176130-A OR US- 2183726-A OR US- 1228669-A OR US- 9126034-B1 OR US- 8936542-B1 OR US- 6461377-B1 OR US- 6123657-A OR US- 6001055-A OR US- 5632720-A OR US- 5382222-A OR US-					
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		5662593-A OR US- 5131384-A OR US- 4326508-A OR US- 4841955-A OR US- 4549535-A OR US- 6432036-B1 OR US- 9456678-B1 OR US- 10722424-B2 OR US- 9504826-B2 OR US- 9278230-B2 OR US- 9084587-B2 OR US- 8620451-B2 OR US- 2490074-A OR US- 5103809-A OR US- 3710785-A OR US- 9782604-B2 OR US- 9592405-B2 OR US- 7479136-B2 OR US- 6702837-B2 OR US- 6019482-A OR US- 5551949-A OR US- 6875225-B1 OR US- 6974224-B2 OR US- 6524329-B1 OR US- 6221095-B1 OR US- 4561440-A OR US- 7384405-B2 OR US- 10272011-B1 OR US- 5067480-A OR US- 4716890-A OR US- 11076685-B2 OR US- 10966514-B2 OR US- 9386843-B2 OR US- 5725483-A OR US- 5647841-A OR US- 4203431-A OR US- 4397055-A OR US- 8028707-B2 OR US- 7793419-B2 OR US- 3699952-A OR US- 2548411-A OR US- 9801448-B1 OR US- 7063476-B1 OR US- 5073058-A OR US- 4991749-A OR US- 4930923-A OR US- 4883380-A OR US- 4723860-A OR US- 4171171-A OR US- D897110-S OR US- 10307330-B1 OR US- 9132031-B2 OR US- 8864401-B2 OR US- 7959369-B2 OR US- 7644589-B2 OR US- 6416534-B1 OR US- 6336907-B1 OR US- 6090085-A OR US-					
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		6017337-A OR US- 5800490-A OR US- 5690608-A OR US- 4920956-A OR US- 4846176-A OR US- 4745909-A OR US- 4640284-A OR US- 4502469-A OR US- 3382866-A OR US- 3154926-A OR US- 8951216-B2 OR US- 7927259-B1 OR US- 6723060-B2 OR US- 6663657-B1 OR US- 6599260-B2 OR US- 5569168-A OR US- 4730605-A OR US- 4150668-A OR US- 3452226-A OR US- 7211057-B2 OR US- 6896693-B2 OR US- 10625093-B2 OR US- 10695508-B2 OR US- 10383486-B2 OR US- 10376659-B2 OR US- 10124165-B2 OR US- D803572-S OR US- 9808646-B2 OR US- 9585687-B2 OR US- D765982-S OR US- D764173-S OR US- 9278045-B2 OR US- 9272141-B2 OR US- D736399-S OR US- 6766199-B2 OR US- 8945104-B2 OR US- 8506506-B2 OR US- 10881577-B2 OR US- 8397518-B1 OR US- 6438964-B1 OR US- 11241357-B2 OR US- 10821297-B2 OR US- 9962284-B2 OR US- 8523791-B2 OR US- 5746702-A OR US- 5174285-A OR US- 4741338-A OR US- 4470263-A OR US- 3099137-A OR US- 7559907-B2 OR US- 7204041-B1 OR US- 5895418-A OR US- 5097828-A OR US- 4614191-A OR US- 4519389-A).did. AND USPT.dbnm.) OR ((US- 3494353-A OR US- 3169521-A OR US-					
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L276	195	2078159-A OR US- 1660821-A OR US- 1657765-A OR US- 1545027-A OR US- 3536064-A OR US- 2512536-A OR US- 1955623-A OR US- 1352894-A OR US- 1339179-A OR US- 1772501-A OR US- 2183726-A OR US- 1228669-A OR US- 3467080-A OR US- 2490074-A OR US- 2424699-A OR US- 2441682-A OR US- 2548411-A OR US- 2995768-A OR US- 3154926-A OR US- 2985166-A OR US- 2809630-A OR US- 2477883-A OR US- 2472385-A OR US- 1380986-A).did. AND USOC.dbnm.) wersland.in. near2 jason.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:39 PM
L277	187	nazarian.in. near2 benjamin.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:39 PM

L278	156	solana.in. near2 jaime.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:39 PM
L279	116	merino.in. near2 eduardo.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:39 PM
L280	80	webb.in. NEAR bill.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:40 PM
L281	125	zhu.in. near2 alex.in.	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2022/06/04 01:40 PM

L282	70	tang.in. near2 richard.in.	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:40 PM
L283	473	276 277 278 279 280 281 282	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:40 PM
L284	414	283 NOT 275	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 01:40 PM
L285	231	283 NOT 275	(US-PGPUB; USPAT; USOCR; FIT (AU, AP,	OR	ON	ON	2022/06/04 01:41 PM

L286	819	((US-20210244611-A1 OR US-20210244610-A1 OR US-20200352821-A1 OR US-20200352820-A1 OR US-20210169733-A1 OR US-20200069510-A1 OR US-20210128399-A1 OR US-20210104318-A1 OR US-20210059898-A1 OR US-20210022955-A1 OR US-20200405574-A1 OR US-20200214930-A1 OR US-20200261307-A1 OR US-20200265590-A1 OR US-20200261310-A1 OR US-20180147800-A1 OR US-20190350793-A1 OR US-20190017528-A1 OR US-20200005469-A1 OR US-20160135516-A1 OR US-20170076361-A1 OR US-20180200141-A1 OR US-20190015294-A1 OR US-20170364154-A1 OR US-20180263845-A1 OR US-20180235031-A1 OR US-20180149437-A1 OR US-20170297280-A1 OR US-20160367425-A1 OR US-20120117481-A1 OR US-20030165480-A1 OR US-20040037895-A1 OR US-20020192231-A1 OR US-20200343746-A1 OR US-20200289365-	AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN)) (US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO, MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/04 02:51 PM
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		A1 OR US- 20190136889-A1 OR US-20190209424-A1 OR US-20170027798- A1 OR US- 20210307998-A1 OR US-20200085675-A1 OR US-20210283005- A1 OR US- 20190175434-A1 OR US-20170304145-A1 OR US-20170042754- A1 OR US- 20150005682-A1 OR US-20130261516-A1 OR US-20070270727- A1 OR US- 20060282025-A1 OR US-20030009116-A1 OR US-20210244609- A1 OR US- 20210228437-A1 OR US-20210196563-A1 OR US-20210196562- A1 OR US- 20210161759-A1 OR US-20210128402-A1 OR US-20210113427- A1 OR US- 20210113421-A1 OR US-20210077340-A1 OR US-20210022951- A1 OR US- 20210000683-A1 OR US-20200393026-A1 OR US-20200390644- A1 OR US- 20200357046-A1 OR US-20190254921-A1 OR US-20200315904- A1 OR US- 20200289364-A1 OR US-20200276079-A1 OR US-20200268594- A1 OR US- 20200261306-A1 OR US-20200230012-A1 OR US-20200155410- A1 OR US- 20200113322-A1 OR US-20200000678-A1 OR US-20190365598- A1 OR US- 20190262222-A1 OR US-20190247271-A1 OR US-20190159961- A1 OR US- 20160045081-A1 OR					
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		US-20160184175-A1 OR US-20180031090-A1 OR US-20180031089-A1 OR US-20170304144-A1 OR US-20140031866-A1 OR US-20170049278-A1 OR US-20160184177-A1 OR US-20160113840-A1 OR US-20150265825-A1 OR US-20150174387-A1 OR US-20140188169-A1 OR US-20090236359-A1 OR US-20100137907-A1 OR US-20030158505-A1 OR US-20050222525-A1 OR US-20050187498-A1 OR US-20020082532-A1 OR US-20020082536-A1 OR US-20210259915-A1 OR US-20210186800-A1 OR US-20210177692-A1 OR US-20200330321-A1 OR US-20140194900-A1 OR US-20210100718-A1 OR US-20200390645-A1 OR US-20190254922-A1 OR US-20200222263-A1 OR US-20160213558-A1 OR US-20180050440-A1 OR US-20050131461-A1 OR US-20050075591-A1 OR US-20200009010-A1 OR US-20190247270-A1 OR US-20160151238-A1 OR US-20150297393-A1 OR US-20150283026-A1 OR US-20140276255-A1 OR US-20140194790-A1 OR US-20120253245-A1 OR US-20180295980-A1 OR US-20170189670-A1 OR US-20160206087-A1 OR US-20160184173-A1 OR US-20160184162-					
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		A1 OR US- 20150333609-A1 OR US-20150182290-A1 OR US-20110040235- A1 OR US- 20090222072-A1 OR US-20090163984-A1 OR US-20070206986- A1 OR US- 20040147984-A1 OR US-20040024438-A1 OR US-20200086137- A1 OR US- 20150305969-A1 OR US-20140378555-A1 OR US-20130060176- A1 OR US- 20110184499-A1 OR US-20110106067-A1 OR US-20110098781- A1 OR US- 20100292746-A1 OR US-20100210993-A1 OR US-20100121419- A1 OR US- 20100049177-A1 OR US-20090177125-A1 OR US-20060058714- A1 OR US- 20080119913-A1 OR US-20060253051-A1 OR US-20050075149- A1 OR US- 20120209357-A1 OR US-20120121309-A1 OR US-20110092863- A1 OR US- 20110091265-A1 OR US-20090287195-A1 OR US-20090234423- A1 OR US- 20090088824-A1 OR US-20090048557-A1 OR US-20080172045- A1 OR US- 20080154162-A1 OR US-20080014011-A1 OR US-20160158568- A1 OR US- 20150150599-A1 OR US-20150045702-A1 OR US-20140194668- A1 OR US- 20140128780-A1 OR US-20130046212-A1 OR US-20130030506- A1 OR US- 20110144410-A1 OR					
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		US-20110032960-A1 OR US-20100179456-A1 OR US-20100081858-A1 OR US-20090270779-A1 OR US-20090005631-A1 OR US-20080214968-A1 OR US-20070185553-A1 OR US-20070073366-A1 OR US-20070073198-A1 OR US-20070027411-A1 OR US-20060047330-A1 OR US-20050131497-A1 OR US-20050070977-A1 OR US-20050045189-A1 OR US-20040260210-A1 OR US-20040030370-A1 OR US-20210275224-A1 OR US-20210059396-A1 OR US-20080262394-A1 OR US-20090299236-A1 OR US-20200170879-A1 OR US-20190209425-A1 OR US-20190142689-A1 OR US-20180185236-A1 OR US-20170360652-A1 OR US-20170319429-A1 OR US-20170128130-A1 OR US-20160256348-A1 OR US-20140142472-A1 OR US-20050142093-A1 OR US-20050107724-A1 OR US-20030004441-A1 OR US-20210145686-A1 OR US-20210038472-A1 OR US-20200179220-A1 OR US-20200129372-A1 OR US-20190262607-A1 OR US-20200154874-A1 OR US-20160228184-A1 OR US-20100274329-A1 OR US-20100137752-A1 OR US-20030163068-A1 OR US-20190142691-A1 OR US-20180360203-					
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		A1 OR US- 20180256439-A1 OR US-20180178032-A1 OR US-20180140860- A1 OR US- 20150283025-A1 OR US-20140088668-A1 OR US-20130131559- A1 OR US- 20120265274-A1 OR US-20110060254-A1 OR US-20080275532- A1 OR US- 20080018167-A1 OR US-20060235341-A1 OR US-20090270915- A1 OR US- 20060293711-A1 OR US-20200237085-A1 OR US-20160192814- A1 OR US- 20210045521-A1 OR US-20200411161-A1 OR US-20200405047- A1 OR US- 20200352317-A1 OR US-20200323337-A1 OR US-20200237604- A1 OR US- 20200187635-A1 OR US-20200170399-A1 OR US-20200093945- A1 OR US- 20200093252-A1 OR US-20200085684-A1 OR US-20200038673- A1 OR US- 20200038530-A1 OR US-20200037747-A1 OR US-20200037746- A1 OR US- 20200000294-A1 OR US-20200000293-A1 OR US-20190298036- A1 OR US- 20190126061-A1 OR US-20190029411-A1 OR US-20190014899- A1 OR US- 20190008332-A1 OR US-20180361437-A1 OR US-20180288160- A1 OR US- 20180279762-A1 OR US-20180193219-A1 OR US-20180015299- A1 OR US- 20170367761-A1 OR					
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		US-20170367543-A1 OR US-20170238686-A1 OR US-20170188695-A1 OR US-20170172837-A1 OR US-20170150851-A1 OR US-20170150810-A1 OR US-20170135894-A1 OR US-20170119144-A1 OR US-20170071321-A1 OR US-20170035649-A1 OR US-20160339218-A1 OR US-20160331106-A1 OR US-20160183743-A1 OR US-20200253811-A1 OR US-20180169682-A1 OR US-20180168318-A1 OR US-20170049212-A1 OR US-20150327653-A1 OR US-20130317416-A1 OR US-20120207532-A1 OR US-20120109041-A1 OR US-20120024308-A1 OR US-20030180690-A1 OR US-20180093106-A1 OR US-20170056685-A1 OR US-20160339219-A1 OR US-20160331308-A1 OR US-20150360014-A1 OR US-20150224020-A1 OR US-20150182415-A1 OR US-20150119771-A1 OR US-20140202493-A1 OR US-20120165710-A1 OR US-20120037184-A1 OR US-20110009783-A1 OR US-20060211961-A1 OR US-20040082983-A1 OR US-20160074641-A1 OR US-20160015150-A1 OR US-20150305487-A1 OR US-20120136289-A1 OR US-20120065556-A1 OR US-20100274162-A1 OR US-20100145242-					
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		A1 OR US- 20210138260-A1 OR US-20200352306-A1 OR US-20190388707- A1 OR US- 20200179713-A1 OR US-20200101312-A1 OR US-20200046999- A1 OR US- 20100211136-A1 OR US-20140343574-A1 OR US-20080140164- A1 OR US- 20080103563-A1 OR US-20050234383-A1 OR US-20070106347- A1 OR US- 20070032843-A1 OR US-20060030908-A1 OR US-20050065579- A1 OR US- 20050055070-A1 OR US-20040210277-A1 OR US-20210022565- A1 OR US- 20200113390-A1 OR US-20170181925-A1 OR US-20200085015- A1 OR US- 20190117503-A1 OR US-20190117497-A1 OR US-20120226268- A1 OR US- 20130190845-A1 OR US-20190046812-A1 OR US-20110034837- A1 OR US- 20170164876-A1 OR US-20150290076-A1 OR US-20150205279- A1 OR US- 20070217199-A1 OR US-20070213698-A1 OR US-20210322257- A1 OR US- 20170007498-A1 OR US-20210121360-A1 OR US-20200281805- A1 OR US- 20200046602-A1 OR US-20200093410-A1 OR US-20140046127- A1 OR US- 20150005679-A1 OR US-20170156974-A1 OR US-20180361137- A1 OR US- 20180185238-A1 OR					
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		US-20180140813-A1 OR US-20180104144-A1 OR US-20170202732-A1 OR US-20170095689-A1 OR US-20170079865-A1 OR US-20170065480-A1 OR US-20160324717-A1 OR US-20160271009-A1 OR US-20160175185-A1 OR US-20160045393-A1 OR US-20150045192-A1 OR US-20100331745-A1 OR US-20090306561-A1 OR US-20060025710-A1 OR US-20030195443-A1 OR US-20040193079-A1 OR US-20030149381-A1 OR US-20030014079-A1 OR US-20140194794-A1 OR US-20150320636-A1 OR US-20150313638-A1 OR US-20080082028-A1 OR US-20070244416-A1 OR US-20060052729-A1 OR US-20060009719-A1 OR US-20050137504-A1 OR US-20210196557-A1 OR US-20210195713-A1 OR US-20200215350-A1 OR US-20180242711-A1 OR US-20180092449-A1 OR US-20160270821-A1 OR US-20160256017-A1 OR US-20160128461-A1 OR US-20150257521-A1 OR US-20150182078-A1 OR US-20140309662-A1 OR US-20110041864-A1 OR US-20100222719-A1 OR US-20080167590-A1 OR US-20080172112-A1 OR US-20080125682-A1 OR US-20060276731-A1 OR US-20060276730-					
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		A1 OR US- 20060135319-A1 OR US-20050278876-A1 OR US-20050277950- A1 OR US- 20120310124-A1 OR US-20220039535-A1 OR US-20210244170- A1 OR US- 20050138740-A1 OR US-20180027942-A1 OR US-20160324373- A1 OR US- 20150034113-A1 OR US-20140356045-A1 OR US-20110270274- A1 OR US- 20040249320-A1 OR US-20210401663-A1 OR US-20140371637- A1 OR US- 20200397611-A1 OR US-20200129327-A1 OR US-20200100936- A1 OR US- 20200069936-A1 OR US-20200037745-A1 OR US-20190290531- A1 OR US- 20190191937-A1 OR US-20190104774-A1 OR US-20190060159- A1 OR US- 20190001503-A1 OR US-20180214304-A1 OR US-20180098615- A1 OR US- 20170367471-A1 OR US-20170360648-A1 OR US-20170347789- A1 OR US- 20170224098-A1 OR US-20170194849-A1 OR US-20170194848- A1 OR US- 20170189227-A1 OR US-20170181924-A1 OR US-20170172834- A1 OR US- 20170042386-A1 OR US-20160287034-A1 OR US-20160223269- A1 OR US- 20160190902-A1 OR US-20160184176-A1 OR US-20160184171- A1 OR US- 20160183671-A1 OR					
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		US-20160183670-A1 OR US-20160120375-A1 OR US-20160113836-A1 OR US-20160074275-A1 OR US-20160037902-A1 OR US-20150359324-A1 OR US-20150305486-A1 OR US-20150265457-A1 OR US-20150202114-A1 OR US-20150189980-A1 OR US-20150173998-A1 OR US-20150173996-A1 OR US-20150173842-A1 OR US-20150165179-A1 OR US-20150164733-A1 OR US-20150150754-A1 OR US-20150141884-A1 OR US-20150119962-A1 OR US-20150065927-A1 OR US-20150057579-A1 OR US-20140366288-A1 OR US-20140330289-A1 OR US-20140305458-A1 OR US-20190167330-A1 OR US-20190148617-A1 OR US-20180352934-A1 OR US-20150272774-A1 OR US-20140221880-A1 OR US-20140005759-A1 OR US-20130331914-A1 OR US-20130281893-A1 OR US-20130197405-A1 OR US-20130085556-A1 OR US-20120265108-A1 OR US-20120265106-A1 OR US-20120209363-A1 OR US-20120209154-A1 OR US-20120172771-A1 OR US-20120165708-A1 OR US-20110202048-A1 OR US-20110200381-A1 OR US-20100087762-A1 OR US-20100056964-A1 OR US-20030100936-					
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		A1 OR US- 20090264971-A1 OR US-20080264464-A1 OR US-20080188915- A1 OR US- 20080168605-A1 OR US-20080168595-A1 OR US-20080141681- A1 OR US- 20070255187-A1 OR US-20060135911-A1 OR US-20060064147- A1 OR US- 20060060184-A1 OR US-20050209663-A1 OR US-20050209537- A1 OR US- 20050203445-A1 OR US-20040171970-A1 OR US-20030163176- A1 OR US- 20030014096-A1 OR US-20180279843-A1 OR US-20180243158- A1 OR US- 20180008512-A1 OR US-20150148592-A1 OR US-20130138023- A1 OR US- 20070150004-A1 OR US-20150360024-A1 OR US-20160121108- A1 OR US- 20210001148-A1 OR US-20200390468-A1 OR US-20200288843- A1 OR US- 20200280680-A1 OR US-20190343712-A1 OR US-20180133470- A1 OR US- 20160324719-A1 OR US-20150100002-A1 OR US-20140336540- A1 OR US- 20140323927-A1 OR US-20140288364-A1 OR US-20140219701- A1 OR US- 20140135798-A1 OR US-20120065555-A1 OR US-20080215123- A1 OR US- 20080193493-A1 OR US-20080103560-A1 OR US-20080125835- A1 OR US- 20080065176-A1 OR					
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		US-20070038206-A1 OR US-20070179573-A1 OR US-20050043653-A1 OR US-20040030325-A1 OR US-20210338478-A1 OR US-20210113365-A1 OR US-20080077211-A1 OR US-20100280582-A1 OR US-20180042761-A1 OR US-20200289161-A1 OR US-20080077201-A1 OR US-20200129219-A1 OR US-20190350752-A1 OR US-20190343686-A1 OR US-20190254866-A1 OR US-20190240110-A1 OR US-20190175396-A1 OR US-20080269851-A1 OR US-20190125577-A1 OR US-20110313498-A1 OR US-20190110931-A1 OR US-20140303697-A1 OR US-20190009110-A1 OR US-20180289531-A1 OR US-20140303696-A1 OR US-20180153736-A1 OR US-20150112195-A1 OR US-20180064574-A1 OR US-20170333667-A1 OR US-20170196729-A1 OR US-20170035602-A1 OR US-20160270951-A1 OR US-20160242956-A1 OR US-20160178251-A1 OR US-20160074210-A1 OR US-20140260331-A1 OR US-20150182375-A1 OR US-20150127077-A1 OR US-20150121900-A1 OR US-20140358204-A1 OR US-20130238043-A1 OR US-20120198616-A1 OR US-20100198322-A1 OR US-20100185267-					
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		A1 OR US- 20090306748-A1 OR US-20090093864-A1 OR US-20080300529- A1 OR US- 20080046047-A1 OR US-20020091425-A1 OR US-20020156509- A1 OR US- 20220047412-A1 OR US-20210290430-A1 OR US-20210212883- A1 OR US- 20210123641-A1 OR US-20200375840-A1 OR US-20200352459- A1 OR US- 20200246520-A1 OR US-20150320590-A1 OR US-20190336326- A1 OR US- 20190117445-A1 OR US-20160000600-A1 OR US-20100217349- A1 OR US- 20100036295-A1 OR US-20070193278-A1 OR US-20120316624- A1 OR US- 20210128058-A1 OR US-20050193742-A1 OR US-20080015545- A1 OR US- 20050277974-A1 OR US-20050005626-A1 OR US-20040111086- A1 OR US- 20220125672-A1 OR US-20220054350- A1).did. AND PGPB.dbnm.) OR ((US- 10714953-B1 OR US- 6965375-B1 OR US- 6245890-B1 OR US- 7425947-B1 OR US- 10945915-B2 OR US- 10940081-B2 OR US- 10702448-B2 OR US- 10758452-B2 OR US- 10617588-B2 OR US- 10959911-B2 OR US- 10470970-B2 OR US- 10959908-B2 OR US- 8372111-B2 OR US- 7435232-B2 OR US- 4669452-A OR US- 3993052-A OR US- 3494353-A OR US-					
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		3169521-A OR US- 2078159-A OR US- 1660821-A OR US- 1657765-A OR US- 1545027-A OR US- 10314762-B1 OR US- 7273159-B2 OR US- 6682496-B1 OR US- 10806660-B1 OR US- 10993874-B1 OR US- 10426691-B2 OR US- 9839572-B2 OR US- 6352518-B1 OR US- 6228042-B1 OR US- 5951501-A OR US- 5593381-A OR US- 5300095-A OR US- 5167226-A OR US- 5088474-A OR US- 5085207-A OR US- 4827914-A OR US- 4566442-A OR US- 4565189-A OR US- 4513737-A OR US- 4495940-A OR US- 4088128-A OR US- 4079733-A OR US- 3837335-A OR US- 3626934-A OR US- 1955623-A OR US- 10428850-B2 OR US- D912835-S OR US- 11090222-B2 OR US- 10357425-B2 OR US- 10857064-B2 OR US- 10847984-B2 OR US- 10842703-B2 OR US- 10682281-B2 OR US- 7695207-B1 OR US- 4858600-A OR US- 1772501-A OR US- 11122206-B2 OR US- 10511777-B2 OR US- 6443915-B1 OR US- 7896908-B2 OR US- 7014639-B2 OR US- 6010264-A OR US- 5698866-A OR US- 5363045-A OR US- 5358503-A OR US- 5176130-A OR US- 2183726-A OR US- 1228669-A OR US- 9126034-B1 OR US- 8936542-B1 OR US- 6461377-B1 OR US- 6123657-A OR US- 6001055-A OR US-					
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		5632720-A OR US- 5382222-A OR US- 5662593-A OR US- 5131384-A OR US- 4326508-A OR US- 4841955-A OR US- 4549535-A OR US- 6432036-B1 OR US- 9456678-B1 OR US- 10722424-B2 OR US- 9504826-B2 OR US- 9278230-B2 OR US- 9084587-B2 OR US- 8620451-B2 OR US- 2490074-A OR US- 5103809-A OR US- 3710785-A OR US- 9782604-B2 OR US- 9592405-B2 OR US- 7479136-B2 OR US- 6702837-B2 OR US- 6019482-A OR US- 5551949-A OR US- 6875225-B1 OR US- 6974224-B2 OR US- 6524329-B1 OR US- 6221095-B1 OR US- 4561440-A OR US- 7384405-B2 OR US- 10272011-B1 OR US- 5067480-A OR US- 4716890-A OR US- 11076685-B2 OR US- 10966514-B2 OR US- 9386843-B2 OR US- 5725483-A OR US- 5647841-A OR US- 4203431-A OR US- 4397055-A OR US- 8028707-B2 OR US- 7793419-B2 OR US- 3699952-A OR US- 2548411-A OR US- 9801448-B1 OR US- 7063476-B1 OR US- 5073058-A OR US- 4991749-A OR US- 4930923-A OR US- 4883380-A OR US- 4723860-A OR US- 4171171-A OR US- D897110-S OR US- 10307330-B1 OR US- 9132031-B2 OR US- 8864401-B2 OR US- 7959369-B2 OR US- 7644589-B2 OR US- 6416534-B1 OR US-					
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		6336907-B1 OR US- 6090085-A OR US- 6017337-A OR US- 5800490-A OR US- 5690608-A OR US- 4920956-A OR US- 4846176-A OR US- 4745909-A OR US- 4640284-A OR US- 4502469-A OR US- 3382866-A OR US- 3154926-A OR US- 8951216-B2 OR US- 7927259-B1 OR US- 6723060-B2 OR US- 6663657-B1 OR US- 6599260-B2 OR US- 5569168-A OR US- 4730605-A OR US- 4150668-A OR US- 3452226-A OR US- 7211057-B2 OR US- 6896693-B2 OR US- 10625093-B2 OR US- 10695508-B2 OR US- 10383486-B2 OR US- 10376659-B2 OR US- 10124165-B2 OR US- D803572-S OR US- 9808646-B2 OR US- 9585687-B2 OR US- D765982-S OR US- D764173-S OR US- 9278045-B2 OR US- 9272141-B2 OR US- D736399-S OR US- 6766199-B2 OR US- 8945104-B2 OR US- 8506506-B2 OR US- 10881577-B2 OR US- 8397518-B1 OR US- 6438964-B1 OR US- 11241357-B2 OR US- 10821297-B2 OR US- 9962284-B2 OR US- 8523791-B2 OR US- 5746702-A OR US- 5174285-A OR US- 4741338-A OR US- 4470263-A OR US- 3099137-A OR US- 7559907-B2 OR US- 7204041-B1 OR US- 5895418-A OR US- 5097828-A OR US- 4614191-A OR US- 4519389-A OR US- D949390-S OR US-					
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		11166863-B2 OR US-11160721-B2 OR US-10980704-B2 OR US-10918565-B2 OR US-10912707-B2).did. AND USPT.dbnm.) OR ((US-3494353-A OR US-3169521-A OR US-2078159-A OR US-1660821-A OR US-1657765-A OR US-1545027-A OR US-3536064-A OR US-2512536-A OR US-1955623-A OR US-1352894-A OR US-1339179-A OR US-1772501-A OR US-2183726-A OR US-1228669-A OR US-3467080-A OR US-2490074-A OR US-2424699-A OR US-2441682-A OR US-2548411-A OR US-2995768-A OR US-3154926-A OR US-2985166-A OR US-2809630-A OR US-2477883-A OR US-2472385-A OR US-1380986-A).did. AND USOC.dbnm.) OR ((WO-2022006086-A1 OR WO-2021222573-A1 OR WO-2021050861-A1 OR WO-2021050868-A1 OR WO-2020227569-A1 OR WO-2020167756-A1 OR WO-2020139715-A1 OR WO-2019013972-A1 OR WO-2019014031-A1 OR WO-2018170121-A1 OR WO-2016209759-A1).did. AND FTDB.dbnm.)					
L287	343	286 AND (speed velocity ("m/s" (meter adj2 ("s" sec second))((foot feet adj2 ("S" sec second))))	(US-PGPUB; USPAT; USOCR; FIT (AU, AP, AT, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, OA, RU, SU, WO,	OR	ON	ON	2022/06/04 03:43 PM

L288	346	286 AND (speed velocity ("m/s" (meter adj2 ("s" sec second))((foot feet inch inches) adj2 ("S" sec second))))	MC, MD, MY, NL, NO, NZ, PH, PL, PT, RO, RS, SE, SG, SI, SK, TH, TN, TR, TW, UA, VN); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 12:52 PM
L289	348	286 AND (speed velocity ("m/s" (meter adj2 ("s" sec second))((foot feet inch inches centimeter cm) adj2 ("S" sec second))))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 12:52 PM
L290	20	286 AND (inch inches centimeter cm) adj2 ("S" sec second)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 03:17 PM
L291	135	286 AND (magnet\$4) WITH (removab\$4	(US-PGPUB; USPAT; USOCR; FIT (AP, AT,	OR	ON	ON	2022/06/06 03:19 PM

		detach\$4 connect\$4 attach\$4 attract\$4)	AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L292	149	286 AND (magnet\$4) WITH (removab\$4 detach\$4 connect\$4 attach\$4 attract\$4 coupled coupling)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 03:21 PM
L293	4	("20210338478" "20200352317").pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 03:28 PM
L294	9	13/656344	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE,	OR	ON	ON	2022/06/06 03:52 PM

L295	1	16/300211	SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 03:54 PM
L296	31	("20140243589" "20150342826" "20150360030" "20160074278" "20080249439" "4776322" "20030229336" "20120302823" "20140180181" "10045907").PN.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 03:55 PM
L297	10	("4513737" "20030195443" "9889066").pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 08:13 PM
L298	147	("784024" "799881" "1339179" "1612981" "1657765" "1978223" "3030647" "3494353"	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/06/06 08:16 PM

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		"4523580" "4549535"					
		"4730605" "4827914"					
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		"5063911" "5065743"					
		"5140979" "5159922"					
		"5215078" "5305738"					
		"5311860" "5364223"					
		"5415621" "5447491"					
		"5489280" "D367712"					
		"D373640" "5602432"					
		"5632720" "5656018"					
		"5725483" "5803916"					
		"5843006" "5925002"					
		"5951501" "6102875"					
		"6123657" "6165145"					
		"6170108" "D437713"					
		"D438309" "6228042"					
		"6231497" "D455837"					
		"6375609" "6402710"					
		"6432072" "6440091"					
		"6461377" "6478755"					
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		"6866776" "6979300"					
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		"8092407" "8192379"					
		"8282583" "8317733"					
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		"20080234611" "20080306417" "20090182249" "20090306577" "20100228168" "20100274162" "20110106067" "20120253245" "20120259255" "20130006040" "20140094724").pn. OR ("9889066").urpn. AND (PGPB USPT USOC).dbnm.					
L299	55	298 AND magnet\$4	(US-PGPUB; USPAT; USOCR)	OR	ON	ON	2022/06/06 08:46 PM
L300	843	((US-20210244611-A1 OR US-20210244610- A1 OR US- 20200352821-A1 OR US-20200352820-A1 OR US-20210169733- A1 OR US- 20200069510-A1 OR US-20210128399-A1 OR US-20210104318- A1 OR US- 20210059898-A1 OR US-20210022955-A1 OR US-20200405574- A1 OR US- 20200214930-A1 OR US-20200261307-A1 OR US-20200265590- A1 OR US- 20200261310-A1 OR US-20190350793-A1 OR US-20190017528- A1 OR US- 20200005469-A1 OR US-20160135516-A1 OR US-20170076361- A1 OR US- 20180200141-A1 OR US-20190015294-A1 OR US-20170364154- A1 OR US- 20180263845-A1 OR US-20180235031-A1 OR US-20180149437- A1 OR US- 20170297280-A1 OR US-20160367425-A1 OR US-20120117481- A1 OR US- 20030165480-A1 OR US-20040037895-A1	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 10:11 PM

		OR US-20020192231-A1 OR US-20200343746-A1 OR US-20200289365-A1 OR US-20190136889-A1 OR US-20190209424-A1 OR US-20170027798-A1 OR US-20210307998-A1 OR US-20200085675-A1 OR US-20210283005-A1 OR US-20190175434-A1 OR US-20170304145-A1 OR US-20170042754-A1 OR US-20150005682-A1 OR US-20130261516-A1 OR US-20070270727-A1 OR US-20060282025-A1 OR US-20030009116-A1 OR US-20210244609-A1 OR US-20210228437-A1 OR US-20210196563-A1 OR US-20210196562-A1 OR US-20210161759-A1 OR US-20210128402-A1 OR US-20210113427-A1 OR US-20210113421-A1 OR US-20210077340-A1 OR US-20210022951-A1 OR US-20210000683-A1 OR US-20200393026-A1 OR US-20200390644-A1 OR US-20200357046-A1 OR US-20190254921-A1 OR US-20200315904-A1 OR US-20200289364-A1 OR US-20200276079-A1 OR US-20200268594-A1 OR US-20200261306-A1 OR US-20200230012-A1 OR US-20200155410-A1 OR US-20200113322-A1 OR US-20200000678-A1 OR US-20190365598-A1 OR US-20190262222-A1 OR US-					
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		OR US-20160206087-A1 OR US-20160184173-A1 OR US-20160184162-A1 OR US-20150333609-A1 OR US-20150182290-A1 OR US-20110040235-A1 OR US-20090222072-A1 OR US-20090163984-A1 OR US-20070206986-A1 OR US-20040147984-A1 OR US-20040024438-A1 OR US-20200086137-A1 OR US-20150305969-A1 OR US-20140378555-A1 OR US-20130060176-A1 OR US-20110184499-A1 OR US-20110106067-A1 OR US-20110098781-A1 OR US-20100292746-A1 OR US-20100210993-A1 OR US-20100121419-A1 OR US-20100049177-A1 OR US-20090177125-A1 OR US-20060058714-A1 OR US-20080119913-A1 OR US-20060253051-A1 OR US-20050075149-A1 OR US-20120209357-A1 OR US-20120121309-A1 OR US-20110092863-A1 OR US-20110091265-A1 OR US-20090287195-A1 OR US-20090234423-A1 OR US-20090088824-A1 OR US-20090048557-A1 OR US-20080172045-A1 OR US-20080154162-A1 OR US-20080014011-A1 OR US-20160158568-A1 OR US-20150150599-A1 OR US-20150045702-A1 OR US-20140194668-A1 OR US-20140128780-A1 OR US-					
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		OR US-20030163068-A1 OR US-20190142691-A1 OR US-20180360203-A1 OR US-20180256439-A1 OR US-20180178032-A1 OR US-20180140860-A1 OR US-20150283025-A1 OR US-20140088668-A1 OR US-20130131559-A1 OR US-20120265274-A1 OR US-20110060254-A1 OR US-20080275532-A1 OR US-20080018167-A1 OR US-20060235341-A1 OR US-20090270915-A1 OR US-20060293711-A1 OR US-20200237085-A1 OR US-20160192814-A1 OR US-20210045521-A1 OR US-20200411161-A1 OR US-20200405047-A1 OR US-20200352317-A1 OR US-20200323337-A1 OR US-20200237604-A1 OR US-20200187635-A1 OR US-20200170399-A1 OR US-20200093945-A1 OR US-20200093252-A1 OR US-20200085684-A1 OR US-20200038673-A1 OR US-20200038530-A1 OR US-20200037747-A1 OR US-20200037746-A1 OR US-20200000294-A1 OR US-20200000293-A1 OR US-20190298036-A1 OR US-20190126061-A1 OR US-20190029411-A1 OR US-20190014899-A1 OR US-20190008332-A1 OR US-20180361437-A1 OR US-20180288160-A1 OR US-20180279762-A1 OR US-					
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		20180193219-A1 OR US-20180015299-A1 OR US-20170367761-A1 OR US- 20170367543-A1 OR US-20170238686-A1 OR US-20170188695-A1 OR US- 20170172837-A1 OR US-20170150851-A1 OR US-20170150810-A1 OR US- 20170135894-A1 OR US-20170119144-A1 OR US-20170071321-A1 OR US- 20170035649-A1 OR US-20160339218-A1 OR US-20160331106-A1 OR US- 20160183743-A1 OR US-20200253811-A1 OR US-20180169682-A1 OR US- 20180168318-A1 OR US-20170049212-A1 OR US-20150327653-A1 OR US- 20130317416-A1 OR US-20120207532-A1 OR US-20120109041-A1 OR US- 20120024308-A1 OR US-20030180690-A1 OR US-20180093106-A1 OR US- 20170056685-A1 OR US-20160339219-A1 OR US-20160331308-A1 OR US- 20150360014-A1 OR US-20150224020-A1 OR US-20150182415-A1 OR US- 20150119771-A1 OR US-20140202493-A1 OR US-20120165710-A1 OR US- 20120037184-A1 OR US-20110009783-A1 OR US-20060211961-A1 OR US- 20040082983-A1 OR US-20160074641-A1 OR US-20160015150-A1 OR US- 20150305487-A1 OR US-20120136289-A1					
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		OR US-20120065556-A1 OR US-20100274162-A1 OR US-20100145242-A1 OR US-20210138260-A1 OR US-20200352306-A1 OR US-20190388707-A1 OR US-20200179713-A1 OR US-20200101312-A1 OR US-20200046999-A1 OR US-20100211136-A1 OR US-20140343574-A1 OR US-20080140164-A1 OR US-20080103563-A1 OR US-20050234383-A1 OR US-20070106347-A1 OR US-20070032843-A1 OR US-20060030908-A1 OR US-20050065579-A1 OR US-20050055070-A1 OR US-20040210277-A1 OR US-20210022565-A1 OR US-20200113390-A1 OR US-20170181925-A1 OR US-20200085015-A1 OR US-20190117503-A1 OR US-20190117497-A1 OR US-20120226268-A1 OR US-20130190845-A1 OR US-20190046812-A1 OR US-20110034837-A1 OR US-20170164876-A1 OR US-20150290076-A1 OR US-20150205279-A1 OR US-20070217199-A1 OR US-20070213698-A1 OR US-20210322257-A1 OR US-20170007498-A1 OR US-20210121360-A1 OR US-20200281805-A1 OR US-20200046602-A1 OR US-20200093410-A1 OR US-20140046127-A1 OR US-20150005679-A1 OR US-					
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		20170156974-A1 OR US-20180361137-A1 OR US-20180185238-A1 OR US- 20180140813-A1 OR US-20180104144-A1 OR US-20170202732-A1 OR US- 20170095689-A1 OR US-20170079865-A1 OR US-20170065480-A1 OR US- 20160324717-A1 OR US-20160271009-A1 OR US-20160175185-A1 OR US- 20160045393-A1 OR US-20150045192-A1 OR US-20100331745-A1 OR US- 20090306561-A1 OR US-20060025710-A1 OR US-20030195443-A1 OR US- 20040193079-A1 OR US-20030149381-A1 OR US-20030014079-A1 OR US- 20140194794-A1 OR US-20150320636-A1 OR US-20150313638-A1 OR US- 20080082028-A1 OR US-20070244416-A1 OR US-20060052729-A1 OR US- 20060009719-A1 OR US-20050137504-A1 OR US-20210196557-A1 OR US- 20210195713-A1 OR US-20200215350-A1 OR US-20180242711-A1 OR US- 20180092449-A1 OR US-20160270821-A1 OR US-20160256017-A1 OR US- 20160128461-A1 OR US-20150257521-A1 OR US-20150182078-A1 OR US- 20140309662-A1 OR US-20110041864-A1 OR US-20100222719-A1 OR US- 20080167590-A1 OR US-20080172112-A1					
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		20160184176-A1 OR US-20160184171-A1 OR US-20160183671-A1 OR US- 20160183670-A1 OR US-20160120375-A1 OR US-20160113836-A1 OR US- 20160074275-A1 OR US-20160037902-A1 OR US-20150359324-A1 OR US- 20150305486-A1 OR US-20150265457-A1 OR US-20150202114-A1 OR US- 20150189980-A1 OR US-20150173998-A1 OR US-20150173996-A1 OR US- 20150173842-A1 OR US-20150165179-A1 OR US-20150164733-A1 OR US- 20150150754-A1 OR US-20150141884-A1 OR US-20150119962-A1 OR US- 20150065927-A1 OR US-20150057579-A1 OR US-20140366288-A1 OR US- 20140330289-A1 OR US-20140305458-A1 OR US-20190167330-A1 OR US- 20190148617-A1 OR US-20180352934-A1 OR US-20150272774-A1 OR US- 20140221880-A1 OR US-20140005759-A1 OR US-20130331914-A1 OR US- 20130281893-A1 OR US-20130197405-A1 OR US-20130085556-A1 OR US- 20120265108-A1 OR US-20120265106-A1 OR US-20120209363-A1 OR US- 20120209154-A1 OR US-20120172771-A1 OR US-20120165708-A1 OR US- 20110202048-A1 OR US-20110200381-A1					
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		OR US-20100087762-A1 OR US-20100056964-A1 OR US-20030100936-A1 OR US-20090264971-A1 OR US-20080264464-A1 OR US-20080188915-A1 OR US-20080168605-A1 OR US-20080168595-A1 OR US-20080141681-A1 OR US-20070255187-A1 OR US-20060135911-A1 OR US-20060064147-A1 OR US-20060060184-A1 OR US-20050209663-A1 OR US-20050209537-A1 OR US-20050203445-A1 OR US-20040171970-A1 OR US-20030163176-A1 OR US-20030014096-A1 OR US-20180279843-A1 OR US-20180243158-A1 OR US-20180008512-A1 OR US-20150148592-A1 OR US-20130138023-A1 OR US-20070150004-A1 OR US-20150360024-A1 OR US-20160121108-A1 OR US-20210001148-A1 OR US-20200390468-A1 OR US-20200288843-A1 OR US-20200280680-A1 OR US-20190343712-A1 OR US-20180133470-A1 OR US-20160324719-A1 OR US-20150100002-A1 OR US-20140336540-A1 OR US-20140323927-A1 OR US-20140288364-A1 OR US-20140219701-A1 OR US-20140135798-A1 OR US-20120065555-A1 OR US-20080215123-A1 OR US-20080193493-A1 OR US-					
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		20080103560-A1 OR US-20080125835-A1 OR US-20080065176-A1 OR US- 20070038206-A1 OR US-20070179573-A1 OR US-20050043653-A1 OR US- 20040030325-A1 OR US-20210338478-A1 OR US-20210113365-A1 OR US- 20080077211-A1 OR US-20100280582-A1 OR US-20180042761-A1 OR US- 20200289161-A1 OR US-20080077201-A1 OR US-20200129219-A1 OR US- 20190350752-A1 OR US-20190343686-A1 OR US-20190254866-A1 OR US- 20190240110-A1 OR US-20190175396-A1 OR US-20080269851-A1 OR US- 20190125577-A1 OR US-20110313498-A1 OR US-20190110931-A1 OR US- 20140303697-A1 OR US-20190009110-A1 OR US-20180289531-A1 OR US- 20140303696-A1 OR US-20180153736-A1 OR US-20150112195-A1 OR US- 20180064574-A1 OR US-20170333667-A1 OR US-20170196729-A1 OR US- 20170035602-A1 OR US-20160270951-A1 OR US-20160242956-A1 OR US- 20160178251-A1 OR US-20160074210-A1 OR US-20140260331-A1 OR US- 20150182375-A1 OR US-20150127077-A1 OR US-20150121900-A1 OR US- 20140358204-A1 OR US-20130238043-A1					
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		OR US-20120198616-A1 OR US-20100198322-A1 OR US-20100185267-A1 OR US-20090306748-A1 OR US-20090093864-A1 OR US-20080300529-A1 OR US-20080046047-A1 OR US-20020091425-A1 OR US-20020156509-A1 OR US-20220047412-A1 OR US-20210290430-A1 OR US-20210212883-A1 OR US-20210123641-A1 OR US-20200375840-A1 OR US-20200352459-A1 OR US-20200246520-A1 OR US-20150320590-A1 OR US-20190336326-A1 OR US-20190117445-A1 OR US-20160000600-A1 OR US-20100217349-A1 OR US-20100036295-A1 OR US-20070193278-A1 OR US-20120316624-A1 OR US-20210128058-A1 OR US-20050193742-A1 OR US-20080015545-A1 OR US-20050277974-A1 OR US-20050005626-A1 OR US-20040111086-A1 OR US-20220125672-A1 OR US-20220054350-A1 OR US-20140228721-A1 OR US-20130102937-A1 OR US-20190151604-A1 OR US-20090306577-A1 OR US-20120259255-A1 OR US-20130006040-A1 OR US-20140094724-A1 OR US-20180147800-A1).did. AND PGPB.dbnm.) OR ((US-10714953-B1 OR US-6965375-B1 OR US-6245890-B1 OR US-					
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		7425947-B1 OR US- 10945915-B2 OR US- 10940081-B2 OR US- 10702448-B2 OR US- 10758452-B2 OR US- 10617588-B2 OR US- 10959911-B2 OR US- 10470970-B2 OR US- 10959908-B2 OR US- 8372111-B2 OR US- 7435232-B2 OR US- 4669452-A OR US- 3993052-A OR US- 3494353-A OR US- 3169521-A OR US- 2078159-A OR US- 1660821-A OR US- 1657765-A OR US- 1545027-A OR US- 10314762-B1 OR US- 7273159-B2 OR US- 6682496-B1 OR US- 10806660-B1 OR US- 10993874-B1 OR US- 10426691-B2 OR US- 9839572-B2 OR US- 6352518-B1 OR US- 6228042-B1 OR US- 5951501-A OR US- 5593381-A OR US- 5300095-A OR US- 5167226-A OR US- 5088474-A OR US- 5085207-A OR US- 4827914-A OR US- 4566442-A OR US- 4565189-A OR US- 4513737-A OR US- 4495940-A OR US- 4088128-A OR US- 4079733-A OR US- 3837335-A OR US- 3626934-A OR US- 1955623-A OR US- 10428850-B2 OR US- D912835-S OR US- 11090222-B2 OR US- 10357425-B2 OR US- 10857064-B2 OR US- 10847984-B2 OR US- 10842703-B2 OR US- 10682281-B2 OR US- 7695207-B1 OR US- 4858600-A OR US- 1772501-A OR US- 11122206-B2 OR US- 10511777-B2 OR US- 6443915-B1 OR US-					
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		7896908-B2 OR US- 7014639-B2 OR US- 6010264-A OR US- 5698866-A OR US- 5363045-A OR US- 5358503-A OR US- 5176130-A OR US- 2183726-A OR US- 1228669-A OR US- 9126034-B1 OR US- 8936542-B1 OR US- 6461377-B1 OR US- 6123657-A OR US- 6001055-A OR US- 5632720-A OR US- 5382222-A OR US- 5662593-A OR US- 5131384-A OR US- 4326508-A OR US- 4841955-A OR US- 4549535-A OR US- 6432036-B1 OR US- 9456678-B1 OR US- 10722424-B2 OR US- 9504826-B2 OR US- 9278230-B2 OR US- 9084587-B2 OR US- 8620451-B2 OR US- 2490074-A OR US- 5103809-A OR US- 3710785-A OR US- 9782604-B2 OR US- 9592405-B2 OR US- 7479136-B2 OR US- 6702837-B2 OR US- 6019482-A OR US- 5551949-A OR US- 6875225-B1 OR US- 6974224-B2 OR US- 6524329-B1 OR US- 6221095-B1 OR US- 4561440-A OR US- 7384405-B2 OR US- 10272011-B1 OR US- 5067480-A OR US- 4716890-A OR US- 11076685-B2 OR US- 10966514-B2 OR US- 9386843-B2 OR US- 5725483-A OR US- 5647841-A OR US- 4203431-A OR US- 4397055-A OR US- 8028707-B2 OR US- 7793419-B2 OR US- 3699952-A OR US- 2548411-A OR US- 9801448-B1 OR US-					
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		7063476-B1 OR US- 5073058-A OR US- 4991749-A OR US- 4930923-A OR US- 4883380-A OR US- 4723860-A OR US- 4171171-A OR US- D897110-S OR US- 10307330-B1 OR US- 9132031-B2 OR US- 8864401-B2 OR US- 7959369-B2 OR US- 7644589-B2 OR US- 6416534-B1 OR US- 6336907-B1 OR US- 6090085-A OR US- 6017337-A OR US- 5800490-A OR US- 5690608-A OR US- 4920956-A OR US- 4846176-A OR US- 4745909-A OR US- 4640284-A OR US- 4502469-A OR US- 3382866-A OR US- 3154926-A OR US- 8951216-B2 OR US- 7927259-B1 OR US- 6723060-B2 OR US- 6663657-B1 OR US- 6599260-B2 OR US- 5569168-A OR US- 4730605-A OR US- 4150668-A OR US- 3452226-A OR US- 7211057-B2 OR US- 6896693-B2 OR US- 10625093-B2 OR US- 10695508-B2 OR US- 10383486-B2 OR US- 10376659-B2 OR US- 10124165-B2 OR US- D803572-S OR US- 9808646-B2 OR US- 9585687-B2 OR US- D765982-S OR US- D764173-S OR US- 9278045-B2 OR US- 9272141-B2 OR US- D736399-S OR US- 6766199-B2 OR US- 8945104-B2 OR US- 8506506-B2 OR US- 10881577-B2 OR US- 8397518-B1 OR US- 6438964-B1 OR US- 11241357-B2 OR US- 10821297-B2 OR US-					
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		9962284-B2 OR US- 8523791-B2 OR US- 5746702-A OR US- 5174285-A OR US- 4741338-A OR US- 4470263-A OR US- 3099137-A OR US- 7559907-B2 OR US- 7204041-B1 OR US- 5895418-A OR US- 5097828-A OR US- 4614191-A OR US- 4519389-A OR US- D949390-S OR US- 11166863-B2 OR US- 11160721-B2 OR US- 10980704-B2 OR US- 10918565-B2 OR US- 10912707-B2 OR US- 9889066-B2 OR US- 11253423-B1 OR US- 10201470-B2 OR US- 10492984-B2 OR US- 4162675-A OR US- 4505267-A OR US- 5065743-A OR US- 5140979-A OR US- 5159922-A OR US- 5311860-A OR US- 5415621-A OR US- 5447491-A OR US- 5656018-A OR US- 5803916-A OR US- 7282037-B2 OR US- 6758826-B2 OR US- 6231497-B1).did. AND USPT.dbnm.) OR ((US- 3494353-A OR US- 3169521-A OR US- 2078159-A OR US- 1660821-A OR US- 1657765-A OR US- 1545027-A OR US- 3536064-A OR US- 2512536-A OR US- 1955623-A OR US- 1352894-A OR US- 1339179-A OR US- 1772501-A OR US- 2183726-A OR US- 1228669-A OR US- 3467080-A OR US- 2490074-A OR US- 2424699-A OR US- 2441682-A OR US- 2548411-A OR US- 2995768-A OR US- 3154926-A OR US-					
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L301	48	2985166-A OR US-2809630-A OR US-2477883-A OR US-2472385-A OR US-1380986-A).did. AND USOC.dbnm.) OR ((WO-2022006086-A1 OR WO-2021222573-A1 OR WO-2021050861-A1 OR WO-2021050868-A1 OR WO-2020227569-A1 OR WO-2020167756-A1 OR WO-2020139715-A1 OR WO-2019013972-A1 OR WO-2019014031-A1 OR WO-2018170121-A1 OR WO-2016209759-A1).did. AND FTDB.dbnm.)					
		300 AND (sleeve ring gasket membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/06 10:15 PM
L302	83	300 AND (sleeve ring gasket jacket cover\$4 sheath membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 11:47 AM
L303	104	300 AND (sleeve layer ring gasket jacket cover\$4 sheath	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY,	OR	ON	ON	2022/06/07 11:54 AM

		membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid)	CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)				
L304	145	300 AND (sleeve seal\$3 layer ring gasket jacket cover\$4 sheath membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 11:58 AM
L305	163	300 AND (sleeve seal\$3 flexible rubber washer layer ring gasket jacket cover\$4 sheath membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid)	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 11:59 AM
L306	171	300 AND (sleeve seal\$3 flexible rubber washer layer ring gasket jacket cover\$4 sheath membrane barrier diaphragm diaphragm) WITH (water waterproof\$4 watertight\$4 liquid (fluid near4 (impervious\$4 protect\$4 prevent\$4)))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH,	OR	ON	ON	2022/06/07 12:00 PM

L307	190	300 AND (sleeve seal\$3 flexible rubber washer layer ring gasket jacket cover\$4 sheath membrane barrier diaphragm diaphragm prevent\$4 protect\$4) WITH (water waterproof\$4 watertight\$4 liquid (fluid near\$4 (impervious\$4 protect\$4 prevent\$4)))	TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 12:05 PM
L308	1	300 AND (grommet) WITH (water waterproof\$4 watertight\$4 liquid (fluid near\$4 (impervious\$4 protect\$4 prevent\$4)))	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 12:44 PM
L309	11	"20160022533"	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 12:49 PM
L310	5	("4574787").pn.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA,	OR	ON	ON	2022/06/07 03:51 PM

L311	5	("5458559").pn.	EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 04:06 PM
L312	844	((US-20210244611-A1 OR US-20210244610-A1 OR US-20200352821-A1 OR US-20200352820-A1 OR US-20210169733-A1 OR US-2020069510-A1 OR US-20210128399-A1 OR US-20210104318-A1 OR US-20210059898-A1 OR US-20210022955-A1 OR US-20200405574-A1 OR US-20200214930-A1 OR US-20200261307-A1 OR US-20200265590-A1 OR US-20200261310-A1 OR US-20190350793-A1 OR US-20190017528-A1 OR US-20200005469-A1 OR US-20160135516-A1 OR US-20170076361-A1 OR US-20180200141-A1 OR US-20190015294-A1 OR US-20170364154-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 04:20 PM

		A1 OR US- 20180263845-A1 OR US-20180235031-A1 OR US-20180149437- A1 OR US- 20170297280-A1 OR US-20160367425-A1 OR US-20120117481- A1 OR US- 20030165480-A1 OR US-20040037895-A1 OR US-20020192231- A1 OR US- 20200343746-A1 OR US-20200289365-A1 OR US-20190136889- A1 OR US- 20190209424-A1 OR US-20170027798-A1 OR US-20210307998- A1 OR US- 20200085675-A1 OR US-20210283005-A1 OR US-20190175434- A1 OR US- 20170304145-A1 OR US-20170042754-A1 OR US-20150005682- A1 OR US- 20130261516-A1 OR US-20070270727-A1 OR US-20060282025- A1 OR US- 20030009116-A1 OR US-20210244609-A1 OR US-20210228437- A1 OR US- 20210196563-A1 OR US-20210196562-A1 OR US-20210161759- A1 OR US- 20210128402-A1 OR US-20210113427-A1 OR US-20210113421- A1 OR US- 20210077340-A1 OR US-20210022951-A1 OR US-20210000683- A1 OR US- 20200393026-A1 OR US-20200390644-A1 OR US-20200357046- A1 OR US- 20190254921-A1 OR US-20200315904-A1 OR US-20200289364- A1 OR US- 20200276079-A1 OR					
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		US-20200268594-A1 OR US-20200261306-A1 OR US-20200230012-A1 OR US-20200155410-A1 OR US-20200113322-A1 OR US-20200000678-A1 OR US-20190365598-A1 OR US-20190262222-A1 OR US-20190247271-A1 OR US-20190159961-A1 OR US-20160045081-A1 OR US-20160184175-A1 OR US-20180031090-A1 OR US-20180031089-A1 OR US-20170304144-A1 OR US-20140031866-A1 OR US-20170049278-A1 OR US-20160184177-A1 OR US-20160113840-A1 OR US-20150265825-A1 OR US-20150174387-A1 OR US-20140188169-A1 OR US-20090236359-A1 OR US-20100137907-A1 OR US-20030158505-A1 OR US-20050222525-A1 OR US-20050187498-A1 OR US-20020082532-A1 OR US-20020082536-A1 OR US-20210259915-A1 OR US-20210186800-A1 OR US-20210177692-A1 OR US-20200330321-A1 OR US-20140194900-A1 OR US-20210100718-A1 OR US-20200390645-A1 OR US-20190254922-A1 OR US-20200222263-A1 OR US-20160213558-A1 OR US-20180050440-A1 OR US-20050131461-A1 OR US-20050075591-A1 OR US-20200009010-A1 OR US-20190247270-					
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		A1 OR US- 20160151238-A1 OR US-20150297393-A1 OR US-20150283026- A1 OR US- 20140276255-A1 OR US-20140194790-A1 OR US-20120253245- A1 OR US- 20180295980-A1 OR US-20170189670-A1 OR US-20160206087- A1 OR US- 20160184173-A1 OR US-20160184162-A1 OR US-20150333609- A1 OR US- 20150182290-A1 OR US-20110040235-A1 OR US-20090222072- A1 OR US- 20090163984-A1 OR US-20070206986-A1 OR US-20040147984- A1 OR US- 20040024438-A1 OR US-20200086137-A1 OR US-20150305969- A1 OR US- 20140378555-A1 OR US-20130060176-A1 OR US-20110184499- A1 OR US- 20110106067-A1 OR US-20110098781-A1 OR US-20100292746- A1 OR US- 20100210993-A1 OR US-20100121419-A1 OR US-20100049177- A1 OR US- 20090177125-A1 OR US-20060058714-A1 OR US-20080119913- A1 OR US- 20060253051-A1 OR US-20050075149-A1 OR US-20120209357- A1 OR US- 20120121309-A1 OR US-20110092863-A1 OR US-20110091265- A1 OR US- 20090287195-A1 OR US-20090234423-A1 OR US-20090088824- A1 OR US- 20090048557-A1 OR					
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		US-20080172045-A1 OR US-20080154162-A1 OR US-20080014011-A1 OR US-20160158568-A1 OR US-20150150599-A1 OR US-20150045702-A1 OR US-20140194668-A1 OR US-20140128780-A1 OR US-20130046212-A1 OR US-20130030506-A1 OR US-20110144410-A1 OR US-20110032960-A1 OR US-20100179456-A1 OR US-20100081858-A1 OR US-20090270779-A1 OR US-20090005631-A1 OR US-20080214968-A1 OR US-20070185553-A1 OR US-20070073366-A1 OR US-20070073198-A1 OR US-20070027411-A1 OR US-20060047330-A1 OR US-20050131497-A1 OR US-20050070977-A1 OR US-20050045189-A1 OR US-20040260210-A1 OR US-20040030370-A1 OR US-20210275224-A1 OR US-20210059396-A1 OR US-20080262394-A1 OR US-20090299236-A1 OR US-20200170879-A1 OR US-20190209425-A1 OR US-20190142689-A1 OR US-20180185236-A1 OR US-20170360652-A1 OR US-20170319429-A1 OR US-20170128130-A1 OR US-20160256348-A1 OR US-20140142472-A1 OR US-20050142093-A1 OR US-20050107724-A1 OR US-20030004441-A1 OR US-20210145686-					
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		US-20090306577-A1 OR US-20120259255-A1 OR US-20130006040-A1 OR US-20140094724-A1 OR US-20180147800-A1 OR US-20160022533-A1).did. AND PGPB.dbnm.) OR ((US-10714953-B1 OR US-6965375-B1 OR US-6245890-B1 OR US-7425947-B1 OR US-10945915-B2 OR US-10940081-B2 OR US-10702448-B2 OR US-10758452-B2 OR US-10617588-B2 OR US-10959911-B2 OR US-10470970-B2 OR US-10959908-B2 OR US-8372111-B2 OR US-7435232-B2 OR US-4669452-A OR US-3993052-A OR US-3494353-A OR US-3169521-A OR US-2078159-A OR US-1660821-A OR US-1657765-A OR US-1545027-A OR US-10314762-B1 OR US-7273159-B2 OR US-6682496-B1 OR US-10806660-B1 OR US-10993874-B1 OR US-10426691-B2 OR US-9839572-B2 OR US-6352518-B1 OR US-6228042-B1 OR US-5951501-A OR US-5593381-A OR US-5300095-A OR US-5167226-A OR US-5088474-A OR US-5085207-A OR US-4827914-A OR US-4566442-A OR US-4565189-A OR US-4513737-A OR US-4495940-A OR US-4088128-A OR US-4079733-A OR US-3837335-A OR US-3626934-A OR US-1955623-A OR US-10428850-B2 OR US-D912835-S OR US-					
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		11090222-B2 OR US- 10357425-B2 OR US- 10857064-B2 OR US- 10847984-B2 OR US- 10842703-B2 OR US- 10682281-B2 OR US- 7695207-B1 OR US- 4858600-A OR US- 1772501-A OR US- 11122206-B2 OR US- 10511777-B2 OR US- 6443915-B1 OR US- 7896908-B2 OR US- 7014639-B2 OR US- 6010264-A OR US- 5698866-A OR US- 5363045-A OR US- 5358503-A OR US- 5176130-A OR US- 2183726-A OR US- 1228669-A OR US- 9126034-B1 OR US- 8936542-B1 OR US- 6461377-B1 OR US- 6123657-A OR US- 6001055-A OR US- 5632720-A OR US- 5382222-A OR US- 5662593-A OR US- 5131384-A OR US- 4326508-A OR US- 4841955-A OR US- 4549535-A OR US- 6432036-B1 OR US- 9456678-B1 OR US- 10722424-B2 OR US- 9504826-B2 OR US- 9278230-B2 OR US- 9084587-B2 OR US- 8620451-B2 OR US- 2490074-A OR US- 5103809-A OR US- 3710785-A OR US- 9782604-B2 OR US- 9592405-B2 OR US- 7479136-B2 OR US- 6702837-B2 OR US- 6019482-A OR US- 5551949-A OR US- 6875225-B1 OR US- 6974224-B2 OR US- 6524329-B1 OR US- 6221095-B1 OR US- 4561440-A OR US- 7384405-B2 OR US- 10272011-B1 OR US- 5067480-A OR US- 4716890-A OR US-					
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		11076685-B2 OR US- 10966514-B2 OR US- 9386843-B2 OR US- 5725483-A OR US- 5647841-A OR US- 4203431-A OR US- 4397055-A OR US- 8028707-B2 OR US- 7793419-B2 OR US- 3699952-A OR US- 2548411-A OR US- 9801448-B1 OR US- 7063476-B1 OR US- 5073058-A OR US- 4991749-A OR US- 4930923-A OR US- 4883380-A OR US- 4723860-A OR US- 4171171-A OR US- D897110-S OR US- 10307330-B1 OR US- 9132031-B2 OR US- 8864401-B2 OR US- 7959369-B2 OR US- 7644589-B2 OR US- 6416534-B1 OR US- 6336907-B1 OR US- 6090085-A OR US- 6017337-A OR US- 5800490-A OR US- 5690608-A OR US- 4920956-A OR US- 4846176-A OR US- 4745909-A OR US- 4640284-A OR US- 4502469-A OR US- 3382866-A OR US- 3154926-A OR US- 8951216-B2 OR US- 7927259-B1 OR US- 6723060-B2 OR US- 6663657-B1 OR US- 6599260-B2 OR US- 5569168-A OR US- 4730605-A OR US- 4150668-A OR US- 3452226-A OR US- 7211057-B2 OR US- 6896693-B2 OR US- 10625093-B2 OR US- 10695508-B2 OR US- 10383486-B2 OR US- 10376659-B2 OR US- 10124165-B2 OR US- D803572-S OR US- 9808646-B2 OR US- 9585687-B2 OR US- D765982-S OR US-					
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		1352894-A OR US- 1339179-A OR US- 1772501-A OR US- 2183726-A OR US- 1228669-A OR US- 3467080-A OR US- 2490074-A OR US- 2424699-A OR US- 2441682-A OR US- 2548411-A OR US- 2995768-A OR US- 3154926-A OR US- 2985166-A OR US- 2809630-A OR US- 2477883-A OR US- 2472385-A OR US- 1380986-A).did. AND USOC.dbnm.) OR ((WO-2022006086-A1 OR WO-2021222573- A1 OR WO- 2021050861-A1 OR WO-2021050868-A1 OR WO-2020227569- A1 OR WO- 2020167756-A1 OR WO-2020139715-A1 OR WO-2019013972- A1 OR WO- 2019014031-A1 OR WO-2018170121-A1 OR WO-2016209759- A1).did. AND FTDB.dbnm.)					
L313	12197	a61h23/00,006.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 04:22 PM
L314	6702	a61h23/00,006.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS,	OR	ON	ON	2022/06/07 04:22 PM

L315	2562	a61h7/003.cpc.	IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO)) (US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2022/06/07 04:22 PM
L316	5904	a61h2201/0153.cpc.	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO))	OR	ON	ON	2022/06/07 04:22 PM
L317	844	((US-20210244611-A1 OR US-20210244610-A1 OR US-20200352821-A1 OR US-20200352820-A1 OR US-20210169733-A1 OR US-20200069510-A1 OR US-20210128399-A1 OR US-20210104318-A1 OR US-20210059898-A1 OR US-20210022955-A1 OR US-20200405574-A1 OR US-20200214930-A1 OR US-20200261307-A1 OR US-20200265590-A1 OR US-20200261310-A1 OR US-20190350793-A1 OR US-20190017528-	(US-PGPUB; USPAT; USOCR; FIT (AP, AT, AU, BE, BG, BR, BY, CA, CH, CN, CS, CU, CZ, DD, DE, DK, EA, EE, EP, ES, FI, FR, GB, HR, HU, ID, IE, IL, IS, IT, JP, KR, LT, LU, LV, MA, MC, MD, MY, NL, NO, NZ, OA, PH, PL, PT, RO, RS, RU, SE, SG, SI, SK, SU, TH, TN, TR, TW, UA, VN, WO); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/07 04:23 PM

		A1 OR US- 20200005469-A1 OR US-20160135516-A1 OR US-20170076361- A1 OR US- 20180200141-A1 OR US-20190015294-A1 OR US-20170364154- A1 OR US- 20180263845-A1 OR US-20180235031-A1 OR US-20180149437- A1 OR US- 20170297280-A1 OR US-20160367425-A1 OR US-20120117481- A1 OR US- 20030165480-A1 OR US-20040037895-A1 OR US-20020192231- A1 OR US- 20200343746-A1 OR US-20200289365-A1 OR US-20190136889- A1 OR US- 20190209424-A1 OR US-20170027798-A1 OR US-20210307998- A1 OR US- 20200085675-A1 OR US-20210283005-A1 OR US-20190175434- A1 OR US- 20170304145-A1 OR US-20170042754-A1 OR US-20150005682- A1 OR US- 20130261516-A1 OR US-20070270727-A1 OR US-20060282025- A1 OR US- 20030009116-A1 OR US-20210244609-A1 OR US-20210228437- A1 OR US- 20210196563-A1 OR US-20210196562-A1 OR US-20210161759- A1 OR US- 20210128402-A1 OR US-20210113427-A1 OR US-20210113421- A1 OR US- 20210077340-A1 OR US-20210022951-A1 OR US-20210000683- A1 OR US- 20200393026-A1 OR					
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		US-20200390644-A1 OR US-20200357046-A1 OR US-20190254921-A1 OR US-20200315904-A1 OR US-20200289364-A1 OR US-20200276079-A1 OR US-20200268594-A1 OR US-20200261306-A1 OR US-20200230012-A1 OR US-20200155410-A1 OR US-20200113322-A1 OR US-20200000678-A1 OR US-20190365598-A1 OR US-20190262222-A1 OR US-20190247271-A1 OR US-20190159961-A1 OR US-20160045081-A1 OR US-20160184175-A1 OR US-20180031090-A1 OR US-20180031089-A1 OR US-20170304144-A1 OR US-20140031866-A1 OR US-20170049278-A1 OR US-20160184177-A1 OR US-20160113840-A1 OR US-20150265825-A1 OR US-20150174387-A1 OR US-20140188169-A1 OR US-20090236359-A1 OR US-20100137907-A1 OR US-20030158505-A1 OR US-20050222525-A1 OR US-20050187498-A1 OR US-20020082532-A1 OR US-20020082536-A1 OR US-20210259915-A1 OR US-20210186800-A1 OR US-20210177692-A1 OR US-20200330321-A1 OR US-20140194900-A1 OR US-20210100718-A1 OR US-20200390645-A1 OR US-20190254922-A1 OR US-20200222263-					
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		US-20110092863-A1 OR US-20110091265-A1 OR US-20090287195-A1 OR US-20090234423-A1 OR US-20090088824-A1 OR US-20090048557-A1 OR US-20080172045-A1 OR US-20080154162-A1 OR US-20080014011-A1 OR US-20160158568-A1 OR US-20150150599-A1 OR US-20150045702-A1 OR US-20140194668-A1 OR US-20140128780-A1 OR US-20130046212-A1 OR US-20130030506-A1 OR US-20110144410-A1 OR US-20110032960-A1 OR US-20100179456-A1 OR US-20100081858-A1 OR US-20090270779-A1 OR US-20090005631-A1 OR US-20080214968-A1 OR US-20070185553-A1 OR US-20070073366-A1 OR US-20070073198-A1 OR US-20070027411-A1 OR US-20060047330-A1 OR US-20050131497-A1 OR US-20050070977-A1 OR US-20050045189-A1 OR US-20040260210-A1 OR US-20040030370-A1 OR US-20210275224-A1 OR US-20210059396-A1 OR US-20080262394-A1 OR US-20090299236-A1 OR US-20200170879-A1 OR US-20190209425-A1 OR US-20190142689-A1 OR US-20180185236-A1 OR US-20170360652-A1 OR US-20170319429-A1 OR US-20170128130-					
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		A1 OR US- 20160256348-A1 OR US-20140142472-A1 OR US-20050142093- A1 OR US- 20050107724-A1 OR US-20030004441-A1 OR US-20210145686- A1 OR US- 20210038472-A1 OR US-20200179220-A1 OR US-20200129372- A1 OR US- 20190262607-A1 OR US-20200154874-A1 OR US-20160228184- A1 OR US- 20100274329-A1 OR US-20100137752-A1 OR US-20030163068- A1 OR US- 20190142691-A1 OR US-20180360203-A1 OR US-20180256439- A1 OR US- 20180178032-A1 OR US-20180140860-A1 OR US-20150283025- A1 OR US- 20140088668-A1 OR US-20130131559-A1 OR US-20120265274- A1 OR US- 20110060254-A1 OR US-20080275532-A1 OR US-20080018167- A1 OR US- 20060235341-A1 OR US-20090270915-A1 OR US-20060293711- A1 OR US- 20200237085-A1 OR US-20160192814-A1 OR US-20210045521- A1 OR US- 20200411161-A1 OR US-20200405047-A1 OR US-20200352317- A1 OR US- 20200323337-A1 OR US-20200237604-A1 OR US-20200187635- A1 OR US- 20200170399-A1 OR US-20200093945-A1 OR US-20200093252- A1 OR US- 20200085684-A1 OR					
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