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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD

Proceeding	91190276
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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

SHIELD MFG. INC.,)	
)	
Opposer,)	
	)	Opp. No. 91190276
v.)	
)	
OPRO LIMITED,)	
)	
OPRO.)	

OPRO'S RESPONSE TO OPPOSER'S MOTION FOR SUMMARY JUDGMENT AND CROSS-MOTION FOR SUMMARY JUDGMENT

Commissioner for Trademarks
P.O. Box 1451
Alexandria, VA 22313-1451

ATT: BOX TTAB FEE

Sir:

OPRO, Limited ("OPRO") submits this memorandum opposing the Motion for Summary Judgment filed by Shield Manufacturing, Inc. ("Opposer") and in Support of OPRO's Cross-Motion for Summary Judgment. Also attached is the Declaration of Anthony H. Handal in support of OPRO's Response.

**MEMORANDUM OF LAW IN RESPONSE TO OPPOSER'S
MOTION FOR SUMMARY JUDGMENT AND IN SUPPORT OF OPRO'S CROSS-MOTION
FOR SUMMARY JUDGMENT**

Opposer, brazenly ignoring its very own generic use of the term, "shield", for hockey hand shields, claims trademark rights in the term "shield" in OPRO's mark OPROSHIELD as applied to a shield for protecting the teeth from impacts during sports and other physical activities such as boxing and other martial arts. Opposer even admits that its use of "hand shield" is not trademark use. Brief p. 4, l. 7.

Going even further, Opposer rests its motion on the untenable premise that no material question of fact exists as to whether or not OPROSHIELD, the combination of Applicant's name and what is respectfully submitted to be the generic term "shield", is confusingly similar to SHIELD. Clearly it is not.

Opposer has brought this completely meritless opposition against U.S. Application Serial No. 79/042,400 directed to the mark OPROSHIELD (the "Application") owned by OPRO, Limited. Opposer cites its U.S. Trademark Registration No. 835,151 for the alleged trademark SHIELD in plain letters for protective mouth guards for all contact sports (the "Registration"). Following the filing of a Notice of Opposition against the Application, OPRO accordingly counterclaimed for cancellation of Opposer's registration of the alleged SHIELD trademark on the grounds that the alleged trademark "shield" is generic for shields generally and for gum shields for all contact sports, in particular.

OPRO believes that it is being damaged by U.S. Trademark Registration No. 835,151 for the term "shield" and, accordingly, initially moved for summary judgment that the word "shield" is generic as applied to body part protecting shields, including the "gum shields" (also known as "mouth guards", mouth protectors and mouth pieces) as recited in both the Application and the Registration (the "Goods"). Opposer opposed the motion for summary judgment and cross moved for summary judgment on the issue of genericness. The Board denied Opposer's and OPRO's respective motions for summary judgment, asserting that neither party had established there was no genuine issue of material fact pursuant to Rule 56 of the Federal Rules of Federal Procedure. Subsequently, the time for discovery has ended and both parties have produced documents and responses to interrogatory requests. Upon review of the documents and responses, Opposer filed the instant Motion for Summary Judgment ("Motion") and Memorandum in Support ("Brief").

In response, OPRO reasserts and incorporates through reference its position as stated in OPRO's initial Motion for Summary Judgment and submits that the word "shield" is commonly used generically for a wide range of products which protect body parts, including extensive use of the term "gum shield" in the field of sports and martial arts. Such extensive use in the field of sports includes generic use by Opposer. Additionally, the word "shield", referring to shields for protecting the mouth is extensively used

by purveyors of sports equipment, in patents, in online information services, and in the generic descriptions of goods in many issued trademark registrations of the United States Patent and Trademark Office, including many registrations for the gum shields covered by the Application and the Registration. Further, OPRO asserts that the evidence submitted by both Opposer and OPRO establishes OPRO's position that the mark OPROSHIELD is not confusingly similar with the mark SHIELD, and is therefore entitled to Registration.

As shown below, summary judgment should not be granted to Opposer in this case because, if summary judgment in favor of OPRO is not appropriate, at the very least there are numerous questions of material fact that go to whether the SHIELD mark is generic. Indeed, when the **full** factual record is considered, it is apparent that OPRO has a meritorious basis for summary judgment, and judgment should be entered in favor of OPRO, not Opposer.

In short, OPRO asserts that the evidence submitted by Opposer is clearly disputed by OPRO, and rather than support Opposer's contentious assertions that the SHIELD mark has not become generic, rather shows that the word has been descriptive of devices for protecting body parts since antiquity. Additionally, Opposer's evidence fails utterly to support its additional burden that OPRO's mark must be shown to be confusingly similar to the SHIELD mark.

Accordingly, OPRO requests that Opposer's motion for summary judgment be dismissed and that OPRO's cross motion for summary judgment be granted on the basis that (1) the word "shield" is a generic term incapable of functioning as a trademark; (2) if ever there was any significance to the term "shield" as an indication of origin, this term has lost any possible significance at least on account of uncontrolled widespread use of the term "shield" by numerous third-parties (and by Opposer) to generically denominate gum shields and/or other types of shields in sports; and (3) the marks are not confusingly similar.

I. UNDISPUTED FACTS

The undisputed facts in this matter are as follows:

1. The Goods protect the teeth from injury due to physical impacts of the type which occur during sports, including boxing and other martial arts sports.

2. The term "shield" is used to refer to other devices for protecting the body from injury due to physical impact during sports.

3. Hand shields are used in the sport of hockey comprise a hollow half toroidal shell which slides down the shaft of a hockey stick and fits around the hand of the user.

4. Hand shields protect the hands from physical impacts from errant balls, pucks, and sticks.

5. The word "shield" is generic to a thing that protects. See Webster's New Universal Unabridged Dictionary, Exhibit A to the Declaration of Anthony H. Handal in Support of OPRO's Opposition to Opposer's Motion for Summary Judgment and in Support of its Cross-Motion for Summary Judgment in favor of OPRO (the "Handal Declaration").

6. The word "shield" is used in a wide variety of contexts to generically designate a variety of things that protect, ranging from gum shields (even as admitted in the United Kingdom by Opposer) to body armor, and CPR face shields, as well as biological body parts that provide a protective function. See definition 9 of Exhibit A.

7. Shield Manufacturing, the Opposer herein, uses the term "Shields" on page 10 of its catalog brochure available on its website to generically designate hand shields which are designed to protect the hands during sports activities. See Exhibit B¹, which constitutes printouts of Opposer's catalog from the website at the URL www.ShieldSports.com.

8. The Goods may be used for a variety of purposes. These purposes include athletic purposes and medical purposes. See Shield Manufacturing's Notice of Opposition, paragraph 7.

9. Mouth shields are also used to protect the mouth in industrial settings.

¹ All references to exhibits in this memorandum identify exhibits to the annexed Handal Declaration.

10. The word "shield" is commonly employed to denominate the Goods generically in the generic name "gum shields" in interstate commerce. See, for example, Exhibit C, excerpts from the website of Gungfu.com which offers a "double gum shield" for sale at \$6.99.

11. The word "shield" is commonly employed generically as the generic name for a variety of the other shields, including shields for protecting the ribs, the arms, and the body. See Exhibit D, an excerpt from the website of Gungfu.com which offers such products.

12. Referring to the hand shields which Opposer sells, Opposer has stated that "The Hand Shield easily slips on all hockey shafts and moves up and down the shaft as the player moves hand positions. Protects hands from errant balls, pucks, and sticks."

13. While the Opposer uses the term "mouthguard" in its designation of the Goods, the term is interchangeable with "gum shields". See the definition from Wikipedia which defines the same stating that "[a] mouthguard (also known as a mouth protector, mouth piece, or gumshield) is a protective device for the mouth that covers the teeth and gums to prevent and reduce injury to the teeth, arches, lips and gums." Exhibit E.

14. The Goods are used, among other things, to protect the mouth from injury. Shield Manufacturing's Notice of Opposition, paragraph 4.

15. Gum shields are also used in connection with dental procedures. Wikipedia definition. Exhibit E.

16. Shield Manufacturing's notice of opposition, at paragraph 7, alleges that OPRO's application, U.S. Application Serial No. 79/042,400 directed to the mark OPPROSHIELD, recites goods classified in either International Class 10 in the case of products used for medical purposes or in International Class 28 in the case of products used for athletic purposes.

17. Mouth protectors for protecting the teeth, mouth and gums take a wide variety of configurations. See United States Patent Number 6,802,079 directed to a "PROTECTIVE MOUTH SHIELD", which is external to the mouth. Exhibit F. See also United States Patent

Number 5,938,435 directed to an "ORTHODONTIC APPLIANCE SHIELD SYSTEM" which is "configured to protect the lips and tongue of a user", and constitutes a strip of protective material worn between the teeth and the lips. Exhibit G.

18. The term "shield" is also used for other mouth shields, such as the "Mouth Shield" in United States Design Patent Number 485,944. Exhibit H.

19. The word "shield" is used as a generic designator in connection with other types of devices for protecting the mouth. See Exhibit I, United States Patent Number 4,104,530, which describes a "shield" for providing "x-ray shielding" for "portions of the mouth". See also Exhibit J, United States Patent Number 7,025,060, which describes a "shield 32 ... held between the gums and the lips of the user," and United States Patent Number 5,730,599 (Exhibit K) which describes a "protective dental shield" for protecting "soft tissue areas of the inner cheeks, tongue or lips."

20. The United States Patent and Trademark Office regularly uses the term "shield" to generically designate mouth protecting products in trademark registrations.

21. United States Trademark Registration Number 2,680,226 is directed to "mouth shields". Exhibit L.

22. United States Trademark Registration Number 3,697,340, owned by Lonsdale Sports Ltd., is directed to "mouth shields" of the type involved herein. Exhibit M.

23. A search of the database at the United States Patent and Trademark Office for trademark registrations and applications including the term "gumshields" or the phrase "gum shields" in the description of goods uncovered 26 filings, half of which matured into registrations. See Exhibit N.

24. The number of United States Patent and Trademark Office registrations and applications concerned with and specifically reciting "shields" even in the small area concerned

with shields for protecting the mouth is consistent with the extensive use of the term "shield" in commerce and otherwise.

25. For example, myKarateStore.com of Thornton, Colorado also offers a double gum shield. Exhibit O.

26. Dentists also use the term "gumshield" to generically designate the Goods. Exhibit P.

27. A Google search directed to "mouth shield" turned up about 6,590,000 hits, supporting the commonness of this generic use of the term "shield". Exhibit Q.

28. When the search on Google was narrowed to the term " "mouth shield," that is the two words were placed in quotation marks in the search box, about 27,900 hits turned up, covering such applications as sports, microphones, light guards, CPR face shields, snoring preventers, rescue face shields, pacifiers, and tooth grinding prevention, among many others. The first 10 results pages of this Google search are annexed hereto as Exhibit R.

29. As is shown by the Google search of Exhibit R, the term "shield" is extensively used in the sports equipment industry to describe devices for protecting the gums and teeth.

30. Companies in the sports equipment industry use the term "shield" generically to designate body protection devices. See Exhibits B (Opposer's website), C, D, E, F, O, P, M, N of the Handal Declaration.

31. Opposer has identified the Goods as used in the field of sports. Notice of Opposition, ¶ 7.

32. Companies in the dental and medical industry use the term "shield" generically to designate mouth protection devices. See Exhibits G, I, K, L, P of the Handal Declaration.

33. Opposer has identified the goods as used in the medical/dental field. Notice of Opposition, ¶ 7.

34. Dentists manufacture gum shields to protect the teeth in sports. See Exhibit E.

35. Companies in other industries use the term "shield" generically to designate mouth protection devices. See Exhibits H and J of the Handal Declaration.

36. Retailer websites in the sports equipment industry use the term "gum shield" to designate mouth protection devices. See Exhibits B (Opposer's website), C, D, O, P, Q, and R of the Handal Declaration.

37. Although the Opposer contends that the term "gum shield" is not used in the United States, as noted above, Gungfu.com has a category called "Shields" and under that category lists for sale at a price specified in US dollars an "air shield", a "rib shield", various versions of an "arm shield", a "body shield" and a "Double Gum Shield". See Exhibit C and D of the Handal Declaration.

38. Gungfu.com is operating in the United States, as it lists events associated with martial arts, including locations, and all locations are in the United States, including Brattleboro, Vermont; Kona, Hawaii; New York; Connecticut; Michigan; Dallas, Texas; New York City; and Rutherford, New Jersey. See Exhibit C.

39. The term "gum shield" is used by at least one dental office in Florida, by patent applicants from Pennsylvania, Louisiana, Ohio, California and North Carolina, and trademark examiners in the USPTO. See Exhibits F,G, H, I, J, K, L, M, N, and P of the Handal Declaration.

40. The above evidence shows that the term "shield" is a commonly used term in the sports equipment industry to generically describe a device for protecting the mouth and teeth from injury.

41. The above evidence shows that the term "gum shield" is a commonly used term in the sports equipment industry to generically refer to a device for protecting the mouth and teeth from injury.

42. The above evidence shows that the term "hand shield" is a term used in the sports equipment industry to refer generically to a device for shielding the hands.

43. The above evidence shows that the term "shield" is a commonly used term in the sports equipment industry to refer generically to a device for protecting various body parts, including gum shields.

44. Opposer uses the term "shield" to refer to hand shields in its own product literature.

45. The above evidence of widespread, uncontrolled use of the term "shield" by numerous third-parties for the goods involved herein shows that the term is generic.

46. Widespread, uncontrolled use of the term "shield" by numerous third-parties shows that the term has no significance as an indication of origin and "shield" cannot act as a trademark indicating a single manufacturer as a source.

47. Generic use of the term "shield" by Opposer to describe protective devices for use during sporting competition graphically demonstrates the complete lack of merit of this opposition.

48. As to likelihood of confusion, Opposer has used its mark SHIELD in association with protective mouthguards in interstate commerce since as early as 1961, and registered its mark SHIELD with the U.S. Patent & Trademark Office in 1967 for International Class 10, see Opposer's Motion for Summary Judgment page 14.

49. Since 1961, there have been Patent and Trademark applications and registrations with the U.S. Patent & Trademark Office which have used or incorporated the term "Shield", including Registration Number 2,935,099 for "PRACTI-SHIELD" in International Class 10. See Exhibit T.

50. As evidenced by the numerous patent and trademark registrations and widespread, uncontrolled use of the term "shield" by numerous third-parties, at the very least, any strength of Opposer's alleged mark has been weakened by a crowded field.

51. OPRO's mark is distinguishable from Opposer's mark by the addition of OPRO's house mark "OPRO" to Opposer's alleged mark.

52. OPRO's use of its house mark OPRO gives them OPROSHIELD a distinct difference in sound, appearance, connotation, and commercial impression from Opposer's mark, and when combined with the generic term "shield" becomes a distinct source identifier entitled to trademark protection.

II. ARGUMENT

1. OPPOSER'S MOTION FOR SUMMARY JUDGMENT SHOULD BE DENIED AS THE OPPOSER HAS FAILED TO SATISFY THE STANDARD FOR SUMMARY JUDGMENT

A. Summary Judgment Standard

Summary judgment may not be granted unless "the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law." FED. R. CIV. P. 56(c). *See Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 250 (1986) (summary judgment only appropriate where the evidence is such that no reasonable jury could return a verdict for the non-moving party). Initially, as the moving party, Opposer has the burden of bringing forward sufficient evidence to establish that there are no genuine issues of material fact and that it is entitled to judgment as a matter of law. *Celotex Corp. v. Catrett*, 477 U.S. 317, 324-25 (1986). Opposer must do more than rely upon "bare assertions, conclusory allegations or suspicions." *Gans v. Mundy*, 762 F. 2d 338, 341 (3d Cir. 1985). "The movant must make a *prima facie* showing that the standard for obtaining summary judgment has been satisfied." 11 *Moore's Federal Practice*, § 56.11[1][a](Matthew Bender 3d ed.). That is, the burden is on the moving party to demonstrate that the evidence creates no genuine issue of material fact. See *Amaker v. Foley*, 274 F.3d 677 (2nd Cir. 2001); *Chipollini v. Spencer Gifts, Inc.* 814 F.2d 893 (3d Cir. 1987) (*en banc*).

Evidence offered by OPRO to resist summary judgment is to be believed and all justifiable inferences therefrom are to be drawn in the light most favorable to OPRO. *Matsushita Elec. Indus. Co., Ltd. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986). In determining whether a genuine issue exists as to a material fact, the court must view underlying facts contained in affidavits, attached exhibits, and depositions in the light most favorable to the non-moving party. *U.S. v. Diebold, Inc.* 369 U.S. 654, 655, 82 S. Ct. 993, 8 L. Ed. 2d 176 (1962). Moreover, the court must draw all reasonable inferences and resolve all ambiguities in favor of the non-moving party. *Leon v. Murphy*, 988 F.2d. 303, 308 (2d Cir. 1993); *Anderson*, 477 U.S. at 248-49; *Doe v. Dep't of Pub. Safety ex rel. Lee*, 271 F.3d 38, 47 (2d Cir. 2001), rev'd on other grounds; *Connecticut Dep't of Public Safety v. Doe*, 538 U.S. 1, 123 S. Ct. 1160, 155 L. Ed. 2d 98 (2003); *International Raw Materials, Ltd. V. Stauffer Chemical Co.*, 898 F.2d 946 (3d Cir. 1990). A fact is "material" only if the fact has some affect on the outcome of the suit. *Catanzaro v. Welden*, 140 F.3d 91, 93 (2d Cir. 1998). A dispute regarding a material fact is genuine "if the evidence is such that a reasonable jury could return a verdict for the nonmoving party". *Anderson*, 477 U.S. at 248. These general principles of summary judgment apply under Federal Rule of Civil Procedure 56 to inter-party proceedings before the Board. See e.g., *Sweats Fashions, Inc. v. Pannill Knitting Co.*, 833 F.2d 1560, 4 U.S.P.Q.2d 1793, 1797 (Fed. Cir. 1987).

As explained more fully below, the Opposer in this case has failed to demonstrate either the absence of contested issues of material fact, or an entitlement to judgment as a matter of law. Accordingly, its Motion must be denied and, where appropriate, judgment should be entered in favor of OPRO.

B. The Evidence Asserted by Opposer is Clearly in Dispute as to Whether Opposer's SHIELD mark is Generic.

Summary judgment should not be granted to Opposer because it has failed to present evidence that conclusively establishes that the term "Shield" is not generic for protective devices for protecting the body from injury due to physical impact. Instead, Opposer has simply offered bald assertions and conclusory allegations, taking issue with the use of adjectival modifiers, contending irrelevantly that the

term “gum shield” is not used in the United States, and objecting to the conservative definition of the genus of goods consistent with the evidence submitted in this proceeding, all of which are disputed issues of fact.

At the very least, Opposer has failed to establish that there is no genuine issue regarding the fact that the term "shield" is generic to protective devices for protecting the body from injury due to physical impact, which is the exact function of the Goods. Opposer’s contention that the genus of goods is limited solely to mouth protecting devices is unsupported and clearly disputed by the evidence presented by OPRO. As shown by the evidence submitted by OPRO, the term “shield” is used by sellers of sporting goods to refer to a wide variety of products for protecting different parts of the body from injury. These include the hands. *See* Exhibit B. Indeed, in the website gungfu.com, there is a category called “Shields”, which offers for sale an “air shield”, a “rib saver”, various versions of an “arm shield”, and a “body shield”. *See* Exhibit D. The same company also offers a “Double Gum Shield”. *See* Exhibit C. Additionally, in the very specific commercial market for martial arts products, merchants use the word “shield” to refer to devices for protecting the gums, ribs, torso, and arm. Clearly, all these uses show that the term “shield” is generic for devices which protect the mouth, gums and teeth. Thus, any attempt to define the genus to exclude one of these items (e.g., "gum shields") is completely without merit and at the very least, disputed by the evidence established by OPRO.

Similarly, Opposer would have this Board rule that, because the word “shield” does not appear in the evidence as referring solely to shields for protecting the mouth, the word “shield”, absent an adjectival modifier, is not generic. No legal authority is cited for the remarkable proposition that the Board should disregard references to shields including “gum shields” that protect the mouth, because this generic term is sometimes used with an adjective.

In any case, the result of such a rule would be inequitable and illogical. For example, the word “vehicle” would become registrable as a trademark for limited classes of vehicles, for example, utility vehicles, if all uses of the generic term “vehicle” for utility vehicles carried an adjectival modifier. Under this rule, using the generic term “car” as part of a trademark applied to a sports car might be an

infringement of trademark rights of another in the supposed trademark “car” as applied to sports cars. Similarly, using the generic term “cola” as part of a trademark (for example the trademark Coca-Cola) might infringe the trademark rights of another party in a supposed trademark “cola” as applied to a cola-based soft drinks, on account of that other party’s use of the generic term “cola” in and of itself as a trademark on a cola drink. Opposer’s essentially arguing that a dictionary definition of the generic term “shield” does not list every type of shield would suggest that if one dictionary definition of “car” did not list “sports cars,” the term “car” could be registered for sports cars, and that the term “car” is not a generic term in referring to sports cars.

According to Opposer’s position, the word “shield”, though it has been a generic term in the English language and its predecessors for a thousand years might suddenly become available for trademark use as applied to gum shields, if users commonly refer to such devices with an adjectival modifier. In such a case, the failure to use an adjectival modifier with a generic term would amount to trademark infringement.

Opposer’s position goes even further.

Opposer would have this Board rule that use of the generic term with an adjectival modifier amounts to trademark infringement. Exactly this question is the subject of this proceeding. OPRO’s trademark is “OPROSHIELD”, and it includes an adjectival modifier.

In short, as is apparent from the legal authority and evidence submitted in this matter, no party can gain trademark rights in a generic word, simply because others have used the generic word with adjectival modifiers. Any other rule would open the door to litigation with respect to numerous uses of generic terms. As such, whether the term “shield” alone is generic is undoubtedly, at the very least, disputed by the evidence on record.

Opposer, in Section 2 of its Motion for Summary Judgment, relies on the principal that “where the mark at issue is federally registered, a presumption exists that the term is not generic” Gilson on Trademarks § 2.02 (citing *Yellow Cab Co. v. Yellow Cab*, 419 F.3d. 925, 75 U.S.P.Q.2d 1771 (9th Cir. 2005); *Nartron Corp. v. STMicroelectronics, Inc.*, 305 F.3d 397, 405, 64 U.S.P.Q.2d 1761 (6th Cir. 2002).

However, Opposer fails to include the principal that a mark, though originally distinctive and registered, over time may become generic, thereby losing all protection. *See King-Seely Thermos Co. v Aladdin Indus. Inc.*, 321 F.2d 577 (2d Cir. 1963)(formerly suggestive term THERMOS held generic). OPRO has submitted evidence that the term "shield", if it ever had any trademark significance, has lost any such significance as a trademark, due to the widespread, uncontrolled use of the term "shield" on gum shields, and related products for protecting the hands, ribs and arms, throughout the relevant industry. Opposer has not offered any evidence to refute this, and at the very least, Opposer and OPRO are diametrically opposed as to the facts on this issue.

Opposer also contends that the term "gum shield" is not used in the United States. Quite simply, this contradicts the evidence of record. As noted above, Gungfu.com has a category called "Shields" and under that category lists for sale at a price specified in US dollars an "air shield", a "rib shield", various versions of an "arm shield", a "body shield" and a "Double Gum Shield". *See Exhibits C and D.* Moreover, the evidence of record shows that this company is operating in the United States, as it lists events associated with martial arts, including locations, and all locations are in the United States, including Brattleboro, Vermont; Kona, Hawaii; New York; Connecticut; Michigan; Dallas, Texas; New York City; and Rutherford, New Jersey. The term is also used by at least one dental office in Florida (Exhibit P), by patent applicants from Pennsylvania, Louisiana, Ohio, California and North Carolina (Exhibits F, G, H, I, J, K), and trademark examiners in the USPTO. *See Exhibits L, M, N.* OPRO's own evidence further shows that the term "gum shield" is used in at least one United States website, see Opposer's Motion for Summary Judgment page 9-10.

C. The Evidence Demonstrates that at the Very Least There are Triable Issues of Fact Concerning Likelihood of Confusion.

As to likelihood of confusion, summary judgment is often inappropriate in trademark cases because the likelihood of confusion analysis generally is fact intensive: "Due to the factual nature of likelihood of confusion, determining whether a likelihood of confusion exists at the summary judgment stage is

generally disfavored because a full record is usually required to fully assess the facts.” *KP Permanent Make-Up, Inc. v. Lasting Impression I, Inc.*, 408 F.3d 596, 608 (9th Cir. 2005).

Opposer, in Section 3(A) of its Argument portion of its Motion, relies on its priority of registration. However, it must be noted that if a trademark becomes generic, often as a result of improper use, rights in the mark may no longer be enforceable. Likewise, the strength of a mark can decrease over time from improper use or failure to police and enforce trademark rights. As stated above, there are numerous patent and trademark applications and registrations which use the term “shield” Similarly, there is numerous, and widespread third party use of the term “shield” in interstate commerce, including the United States.

Opposer also contends that the registration and use of OPRO’s mark is likely to cause confusion, or to cause mistake, or to deceive, particularly as to the source or origin of the goods which OPRO seeks to use its mark. As to this allegation, there is an obvious genuine dispute of material facts. The Board will grant summary judgment of no likelihood of confusion where the evidence shows a distinct difference in sound, appearance, connotation, and commercial impression. *Inspiration Software, Inc. v. Teachers Inspired Practical Stuff, Inc.* The use of OPRO’s mark is sufficiently distinct from the registered mark owned by Opposer. OPROSHIELD mark is capable of distinguishing Opposer’s mark by use of the prefix “OPRO”. Therefore, even if Opposer’s mark is not generic, a question of fact exists as to whether OPRO’s use of its house mark “OPRO” acts as a source identifier capable of distinguishing the trademarks and entitles OPRO’s mark to trademark protection.

It is astonishing to OPRO that Opposer believes there is a likelihood of confusion when there have been trademark applications which have contained the word “shield” and a prefix that have been granted registration by the Board. *See* Exhibit T. As such, Opposer and OPRO are diametrically opposed on the issue of any likelihood of confusion between Opposer’s mark and OPRO’s mark.

In view of the foregoing, it is apparent that, at the very least, there are many genuine issues of material fact in this case, and as such, summary judgment for cancellation of the application for OPRO, Limited’s trademark OPROSHIELD is not appropriate here and therefore should be denied.

2. OPRO IS ENTITLED TO SUMMARY JUDGMENT

Alternatively, OPRO submits that, even if all of Opposer's facts are considered to be true, Opposer's claim asserting that the word "shield" is not generic for protective devices for protecting the body from injury due to physical impact is without merit. For the following reasons, Opposer's registration is properly cancelled.

A. The Evidence Conclusively Establishes That the Term Shield Is Generic

The Lanham Act refers to a generic trademark as "the common descriptive name of an article". 15 U.S.C. S 1064(c). As proven beyond doubt by the evidence noted above, the term "shield" is generic to protective devices for protecting the body from injury due to physical impact. This is true generally, and the generic nature of the term certainly extends to devices of this type which are used in sports. Moreover, the term is also commonly generically used with respect to devices for protecting the teeth, mouth and gums during contact sports. Since a generic term refers to an entire class of articles, it therefore cannot be distinctive. A generic term, such as Opposer's SHIELD usage, must be denied registration because it never distinctively identified a product.

Courts have found a mark to be generic if the *principal significance* of the word indicates the nature or class of an article rather than its manufacturer. See e.g., *Feathercombs, Inc. v. Solo Prods. Corp.*, 306 F.2d 251, 256 (2d Cir.), *cert denied*, 371 U.S. 910 (1962). Therefore, any term that the relevant public understands to principally signify the nature of protective devices or to refer to the genus of 'protective devices which protect the human body from injury due to physical impact during sporting, martial arts and other activities' is generic.

B. Opposer Uses "Shield" Generically for Protective Sports Equipment

As is apparent from the above, the term "shield" is indisputably generic for protective devices. It is a generic term in the medical and dental fields, as well as in the sports equipment field. Indeed, Opposer, itself, uses the term "shield" generically, calling one of its products "Hand Shields". Opposer explains that a "Hand Shield easily slips on all hockey shafts and moves up and down the shaft as the

player moves hand positions", and that its "Hand Shield ... [p]rotects hands from errant balls, pucks, and sticks." Exhibit B, page 10.

C. The Term "Shield" Is Generic for Protective Shields for Sports

A generic term is the common descriptive name of a class or genus of goods or services, and must be refused registration under the Trademark Act because it cannot function as a trademark or service mark. Generic terms are common words or terms, often found in the dictionary, that identify products and services and are not specific to any particular source. By definition, a generic term identifies a type of goods or services and not the source of such goods or services. See *In re Dial-A-Mattress Operating Corp.*, 240 F.3d 1341, 57 USPQ2d 1807, 1810 (Fed. Cir. 2001). As correctly noted by Opposer, the test to determine if a mark is generic is a two step inquiry: "First, what is the genus of goods or services at issue? Second, is the term sought to be registered . . . understood by the relevant public primarily to refer to that genus of goods or services?" *H. Marvin Ginn Corp. v. International Association of Fire Chiefs, Inc.*, 782 F.2d 987, 228 USPQ 528 (Fed. Cir. 1986); See also *In re CyberFinancial.Net Inc.*, 65 USPQ2d 1789 (TTAB 2002) (BONDS.COM held generic for providing information regarding financial products and services). Further, "Whether a term is generic is determined by actual common usage." *In re Deutsche Airbus GmbH*, 224 USPQ 611, 614 n. (TTAB 1984).

Opposer incorrectly narrows the particular genus of goods to mouth protecting devices. In making this determination, the basic question before the Board is one of fact: "What do the buyers understand by the word for whose use the parties are contending?". See *Bayer Co. v. United Drug Co.*, 272 F. 505, 509 (S.D.N.Y. 1921). Opposer insists a mark is generic only if the buyer understands the name of the product to mean *only* the kind or "genus" of goods sold. Therefore, Opposer's analysis is limited to determining if "Shield" alone is recognized by the relevant consuming public solely as "mouth guards". However, this contention is simply unsupported. The law does not allow a company to claim as its proprietary mark a generic term, that is, a word that identifies the type of product or service involved, such as "Software" used to identify a software product or "Apple" used for fruit. Since everyone deserves the right to

accurately identify the type of goods or services it sells, to allow a single company to claim trademark rights to a generic term would impoverish the language and unfairly hamper competition. This applies not only to words that begin life as generic terms, but also to words that begin life as brand names but are appropriated by consumers as another word for the types of goods/services they were coined to brand. See *Feathercombs, Inc. v. Solo Prods. Corp.*, 306 F.2d 251, 256 (2d Cir.), *cert denied*, 371 U.S. 910 (1962) (a term is or can *become* generic if its principal, not exclusive, significance indicates the nature or class of an article).

D. Genus of Goods: Devices Protecting the Body from Physical Impact

In this instance, the proper answer to the first question above is that the genus of goods is devices which protect the human body from injury due to physical impact during sporting, martial arts and other activities. The "Sciield" (as the term is spelled in Anglo-Saxon) was (Exhibit S) used a thousand years ago during the jousting competitions of the Middle Ages. The term "shield" is commonly used today in other sports to refer to devices which protect the hands (Exhibit B), the ribs, arms and body (Exhibit D) as well as the mouth (Exhibit C, D, E, F, M, N, O and P). The modern term "shield" is also used in nonsports applications to refer to devices which protect the mouth and teeth from injury (Exhibit G, H, I, J and K). All of the above uses are attested to by extensive use of the term "shield" in the descriptions of goods in registrations issued by the United States Patent and Trademark Office. These include many uses of the word "shield" in the terms "gum shields" and "gumshields" as shown by Exhibits M and N.

E. The Relevant Public Is Wholesale and Retail Purchasers

In response to the second query, the relevant public primarily refers to retail and wholesale purchasers. Clearly, the evidence shows that the term "shield" is a generic term describing protective devices, including use in the term "gum shield". Accordingly, the term "shield" is understood by the relevant public to primarily refer to the Goods and similar protective devices. OPRO is clearly entitled to use the term "shield" as part of its trademark OPROSHIELD.

It is the primary significance of the term to the relevant public that controls whether a mark is generic. See *Magic Wand Inc. v. RDB Inc.*, 940 F.2d 638, 19 U.S.P.Q.2d 1551 (Fed. Cir. 1991); *In re*

Merrill Lynch, Pierce, Fenner, and Smith Inc., 828 F.2d 1567, 4 USPQ2d 1141 (Fed. Cir. 1987). Evidence of the relevant public's understanding of a term may be obtained from any competent source, including direct testimony of consumers, newspapers, magazines, dictionaries, catalogs, and other publications. See *In re Merrill Lynch, Pierce, Fenner, and Smith Inc.*, *supra*, and *In re Northland Aluminum Products, Inc.*, 777 F.2d 1556, 227 USPQ 961 (Fed. Cir. 1985).

Accordingly, as stated above, the relevant public understands the principal significance of the word "shield" to identically indicate the nature of the Goods. Therefore, the term "shield" is generic for protective devices for protecting the body from injury due to physical impact, including gum shields, mouth guards, and the Goods.

F. Opposer Makes Generic Use of the Term Shield for Sports in Retail Sales Conduct

Reviewing the evidence submitted with this motion, which includes paper and Internet dictionaries, retail sports equipment websites, patents, Internet search engine results and other materials, it is clear that the relevant public uses the term "shield", typically with the modifier "gum", to generically refer to mouth protection devices.

The evidence shows extensive use of the term "shield" in connection with mouth protection devices of the same type recited in Opposer's registration and touted on his website. Opposer even uses the term "shield" generically to refer to a hand protecting device positioned around the hand of a hockey player while the player is playing hockey. See *J. Thomas McCarthy*, 3 McCarthy on Trademarks and Unfair Competition §12:1 (4th ed. 2007) ("The name of a product or service itself-what it is-is the very antithesis of a mark. In short, a generic name of a product can never function as a trademark to indicate origin." (Internal citations removed)).

G. Public Policy Demands Reservation of Generic Term to the Public Domain

The rationale behind the preservation of generic terms for the public domain lies in the importance of their availability for use by persons in industries related to the same. Generic marks distort consumer preferences and depress competition by indirectly restricting the market for the products of competitors who are unable to use the generic name to describe their product. Quite simply, it is often

necessary or very desirable for manufacturers to use generic terms to refer to their products. *See Shipley, Generic Trademarks, the FTC and the Lanham Act: Covering the Market with Formica*, 20 Wm & Mary L. Rev. 1, 3 (1978). The necessity of using such generic terms is illustrated by Opposer's own use of the generic term "shield" in referring to its hand shields as "Hand Shields". Opposer states with respect to this product:

"The Hand Shield easily slips on all hockey shafts and moves up and down the shaft as the player moves hand positions. Protects hands from errant balls, pucks, and sticks."

The evidence makes it clear that companies in the sports equipment business use the term "shield" in connection with devices for protecting the mouth. Exhibits C, D, E, F, O and P consist of printouts of third party websites offering gumshields and conclusively show that the term "shield" is being used in a generic sense in the word "gumshield" and in the term "gum shield". *See Continental Airlines Inc. v. United Airlines, Inc.*, 53 U.S.P.Q.2d 1385, 1395 (TTAB 1999) (use of E-TICKET by competitors supports finding that term is generic).

H. Shield is in Common Use to Generically Designate all Types of Shields

Exhibits B and D consist of printouts from the Internet showing that the term "shield" is generically used to describe protective devices for protecting body parts other than the mouth. Exhibits G, H, I, J and K consist of printouts of online publications that show that the term "shield" is in common use in non-sports industries to refer to devices which protect the mouth. *See Continental Airlines Inc.*, 53 U.S.P.Q.2d at 1393-1394 (TTAB 1999) (relying on various travel publications and newspapers in finding E-TICKET generic for computerized reservation and ticketing of transportation services); *Murphy Door Bed Co. v. Interior Sleep Systems, Inc.*, 874 F.2d 95, 10 U.S.P.Q.2d 1748 (2d Cir. 1989) ("Newspaper and magazine use of a term in a generic sense is a strong indication of the general public's perception' that the term is a generic name."); and *In re Northland Aluminum Products Inc.*, 227 USPQ 961, 963 (Fed. Cir. 1985) (relying on articles from newspapers as evidence that BUNDT is generic term for a ring).

Tellingly, Shield Manufacturing's own website uses the term "shield" generically to refer to exactly the same type of products as the Goods. *See Exhibit B*. Opposer's "Hand Shield" is a plastic

member fitted around the hand of a hockey player to protect the hand from injury. OPRO's gumshield is a plastic member fitted around the teeth of, for example, a boxer, to protect the teeth and mouth from injury. The evidence submitted herewith showing use of the term "shield" in connection with gumshields and other shield products shows generic use of the terms and is *prima facie* and irrefutable evidence that the term "shield" has wide generic significance in the sports equipment industry.

I. The PTO, Applicant and Registrant Use "Shield" Generically for the Subject Goods

Furthermore, the PTO has issued more than a dozen registration certificates for devices for protecting the mouth that include the term "gumshields" or "gum shields" in the description of goods. *See* Exhibit N. This is additional evidence that shows the genericness of the term "shield".

The evidence attached hereto supports a finding that members of the relevant public (i.e. retailers, manufacturers, and consumers in the sports equipment and medical equipment industries) use the term "shield" generically to refer to devices for protecting the mouth and other body parts during contact sports.

J. The Term SHIELD Cannot Act As a Single Source-Identifier Due to Widespread Uncontrolled Use by Numerous Third-Parties

A mark, though originally distinctive and registered, over time may become generic, thereby losing all protection. *See, e.g., King-Seely Thermos Co. v. Aladdin Indus. Inc.*, 321 F.2d 577 (2d Cir. 1963)(formerly suggestive term THERMOS held generic); *Dupont Cellophane Co. v. Waxed Prods. Co.*, 85 F.2d 75 (2d Cir. 1936)(formerly suggestive term CELLOPHANE held generic), *cert. denied*, 304 U.S. 575 (1937); *Haughton Elevator Co. v. Seeberger*, 85 U.S.P.Q. (BNA) 80 (C.C.P.A. 1950)(formerly arbitrary term ESCALATOR held generic). *See Shipley*, at 7 (even arbitrary and fanciful trademarks deemed "worthy of the greatest degree of legal protection ... may degenerate into generic designations as their distinctiveness fades with the lapse of time and continued public use"). *See also E.VANDENBURGH, TRADEMARK LAW AND PROCEDURE* § 9.20, at 269 (1968). (Vandenburg describes the process of a mark's becoming generic: [w]hen the meaning of a mark that had previously served as an indication of origin changes so that its principal significance to purchasers is that of

indicating the nature or class of goods and its function as an indication of origin is subservient thereto, it is no longer a mark but rather is a generic term).

The term "shield", if it ever had any trademark significance, has lost any such significance as a trademark, due to the widespread, uncontrolled use of the term "shield" on gumshields, and related products for protecting the hands, ribs and arms, throughout the relevant industry. Formerly valid trademarks can become generic in a number of ways, including the trademark owner may use the word inappropriately in referring to the article in advertising or product packaging or the trademark owner may not have policed effectively against improper use of the trademark by competitors or the general public. Public policy mandates that Opposer is not entitled to a federal registration for the generic term "shield". To permit exclusive trademark rights in a generic name "would grant the owner of the mark a monopoly, since a competitor could not describe his goods as what they are." *CES Publishing Corp. v. St. Regis Publications*, 531 F.2d 11, 188 U.S.P.Q. 612, 615 (2d Cir. 1975).

The evidence shows that consumers do not use the term "shield" in connection with a particular manufacturer, nor do they associate the term with any one particular product from a particular manufacturer. In light of the evidence submitted herein, there can be no way that the term "shield" can designate mouth protecting shields from a single source.

K. OPRO's Mark is Not Likely to Cause Confusion with Opposer's Mark

OPRO agrees with Opposer that in determining the issue of likelihood of confusion, and hence whether there is any genuine issue of material fact relating thereto, the Board must consider all of the probative facts in evidence which are relevant to the factors bearing on likelihood of confusion, as identified in *In re du Pont de Nemours & Co.*, 476 F.2d 1357, 177 U.S.P.Q. 563 (C.C.P.A. 1973), which include:

- 1) *The similarity or dissimilarity of the marks in their entireties as to appearance, sound, connotation, and commercial impression;*
- 2) *The similarity or dissimilarity and nature of the goods or services as described in an application or registration in connection with which a prior mark is in use;*
- 3) *The similarity or dissimilarity of established likely-to-continue trade channels;*

- 4) *The conditions under which and buyers to whom sales are made, i.e., “impulse” vs. careful, sophisticated purchasing;*
- 5) *The fame of the prior mark (sales, advertising, length of use);*
- 6) *The number and nature of similar marks in use on similar goods;*
- 7) *The nature and extent of actual confusion;*
- 8) *The length of time during and conditions under which there has been concurrent use without evidence of actual confusion;*
- 9) *The variety of goods on which a mark is or is not used (house mark, “family” mark, product mark);*
- 10) *The market interface between applicant and the owner of a prior mark: (a) a mere “consent” to register or use, (b) agreement provisions designed to preclude confusion, i.e., limitations on continued use of the marks by each party, (c) assignment of mark, application, registration, and good will of the related business, (d) laches and estoppels attributable to the owner of the prior mark and indicative of lack of confusion;*
- 11) *The extent to which the applicant has a right to exclude others from use of its mark on its goods;*
- 12) *The extent of potential confusion, i.e., whether de minimis or substantial*
- 13) *Any other established fact probative of the effect of use.*

The Board will grant summary judgment of no likelihood of confusion where the evidence shows a distinct difference in sound, appearance, connotation, and commercial impression. *Inspiration Software, Inc. v. Teachers Inspired Practical Stuff, Inc.* Further, differences in word marks differentiate them from other word marks because the differences may reinforce the ability to distinguish them or overcome similarity in one of the three dimensions of sight, sound, and meaning. *Cf. Ultrapure Systems, Inc. v. Ham-Let Group*, 921 F. Supp. 659, 663 (N.D. Cal. 1996) (GAZEL and GAZLINE marks not confusingly similar because different in sight and meaning and only slightly similar in sound).

As outlined more fully below, a review of the applicable du Pont factors reveals there is no genuine dispute of material facts and that there is no likelihood of any confusion between Opposer’s mark and OPRO’s mark. Accordingly, OPRO’s OPROSHIELD mark should be granted registration.

L. OPRO’s Mark and Opposer’s Mark are Not Substantially Similar

Here, the use of OPRO's mark is sufficiently distinct from the registered mark owned by Opposer. The OPRO, Ltd. mark is capable of distinguishing Opposer's mark by use of the prefix "OPRO". There have been trademark applications which contain the word "shield" and a prefix, which have withstood opposition and been granted registration by the Board, including Registration Number 2,935,099 for "PRACTI-SHIELD". See Exhibit T. Therefore, OPRO's use of its house mark "OPRO" acts as a source identifier capable of distinguishing the trademarks and entitle OPRO's mark to trademark protection. The registration and use of OPRO's OPROSHIELD mark is not likely to cause confusion, or to cause mistake, or to deceive, particularly as to the source of origin of the goods with which OPRO uses its mark.

M. Any Fame Opposer's Mark Once had has been Lost

The strength of a mark can decrease over time from improper use or failure to police and enforce trademark rights. As stated above, there are numerous patent and trademark applications and registrations which use the term "shield". Similarly, there is numerous, and widespread third party use of the term "shield" in interstate commerce, including the United States. Such extensive use has crowded the market and decreased any strength Opposer's mark SHIELD may have once obtained in the marketplace. As a result, any legal protection stemming from prior use or fame of the mark is clearly opposed by the evidence presented by the OPRO.

N. There are Numerous Similar Marks used on Similar Goods

Since 1961, there have been Patent and Trademark applications and registrations with the U.S. Patent & Trademark Office which have used or incorporated the term "Shield", including in International Class 10. See Exhibit T. As evidenced by patents and trademark registrations and widespread, uncontrolled use of the term "shield" by numerous third-parties, any alleged strength of Opposer's mark has been weakened by a crowded field.

O. Sufficient Evidence of Actual Confusion Does Not Exist

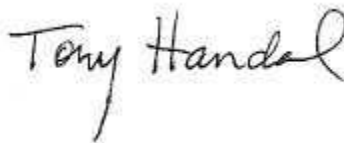
Actual confusion is irrelevant where a party is using a generic term. Even where a term is not generic, it is but one of several factors relevant to determining the likelihood of confusion. The evidence of actual confusion, presented solely by the President of the Opposer corporation, is not sufficient to establish substantial similarity between the marks. The marks have coexisted in the market for some time and there has been no sufficient evidence of actual consumer confusion presented. In light of the distinguishing characteristic “OPRO” and the lack of sufficient actual consumer confusion, the marks should be declared not similar as a matter of law.

CONCLUSION

For the foregoing reasons, Opposer's Motion for Summary Judgment should be denied in all respects and OPRO's Cross-Motion for Summary Judgment should be granted. Opposer's defense rests upon the irrelevant assertion that a second term, “mouth guard,” is also a generic term for the product at issue, and that the term “shield” is only generic in the UK. Of course, even foreign generic words cannot be registered, so the argument respecting UK usage is also spurious.

Dated: New York, New York
October 31, 2011

Respectfully submitted,



By: _____

Anthony H. Handal
Ben Conner
Tim Bukher

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(fax) 203-610-8102

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

SHIELD MFG. INC.,)	
)	
Opposer,)	
	)	Opp. No. 91190276
v.)	
)	
OPRO LIMITED,)	
)	
Applicant.)	

APPLICANT'S MOTION FOR SUSPENSION OF PROCEEDINGS

Commissioner for Trademarks
P.O. Box 1451
Alexandria, VA 22313-1451


ATT: BOX TTAB FEE

Sir/Madam:

OPRO, Limited ("OPRO") respectfully moves the Board in the above-referenced Opposition proceeding for a Suspension of the Proceeding, pending a decision on Opposer's Motion for Summary Judgment. The merits of the Motion for Summary Judgment are believed to be clearly in dispute and inappropriate for the granting of the instant motion, as detailed in the memorandum opposing the motion for summary judgment, which is incorporated herein by reference. It is believed that this motion is premature and that this case is not ripe for summary judgment.

Dated: New York, New York
October 31, 2011

Respectfully submitted,

A handwritten signature in black ink that reads "Tony Handal". The signature is written in a cursive style with a large, looped "H" and a long, sweeping tail on the "l".

By: _____

ANTHONY H. HANDAL
Attorney for Applicant
Handal & Morofsky, LLC
501 Kings Highway East
Fairfield, Connecticut 06825
(tel) 917-880-0811
(fax) 203-610-8102

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE TRADEMARK TRIAL AND APPEAL BOARD**

SHIELD MFG. INC.,)	
)	
Opposer,)	
	)	Opp. No. 91190276
v.)	
	)	Declaration of Anthony H. Handal
OPRO LIMITED,)	
)	
Applicant.)	

1. I am counsel to Applicant in the above matter.

2. Annexed hereto are the following:

Exhibit A Webster’s New Universal Unabridged Dictionary definition of “shield”.

Exhibit B Printouts of Opposer’s catalog from the website at the URL

www.SheildSports.com.

Exhibit C Excerpts from the website of Gungfu.com which offers a “double gum shield” for sale at \$6.99.

Exhibit D Excerpts from the website of Gungfu.com which offers shields for protecting the ribs, the arms, and the body.

Exhibit E Wikipedia definition.

Exhibit F United States Patent Number 6,802,079 directed to a “PROTECTIVE MOUTH SHIELD”.

Exhibit G 5,938,435 directed to an “ORTHODONIC APPLIANCE SHIELD SYSTEM”.

Exhibit H United States Design Patent Number 485,944 “Mouth Shield”

Exhibit I United States Patent Number 4,104,530 to Dental and Medical X-Ray Apparatus.

Exhibit J United States Patent Number 7,025,060 to Personal Breathing Filter.

Exhibit K United States Patent Number 5,730,599 to Protective Dental Shield.

Exhibit L United States Trademark Registration Number 2,680,226 directed to “mouth shields”.

Exhibit M United States Trademark Registration Number 3,697,340 directed to “mouth shields”.

Exhibit N Trademark registrations and applications including the term “gumshields” or the phrase “gum shields” in the description of goods.

Exhibit O Website of myKarateStore.com of Thornton, Colorado.

Exhibit P Smile Fairly Dental Spa use of the term “gumshield” to generically designate the Goods.

Exhibit Q Google Search “mouth shield”, 6, 590,000 hits.

Exhibit R Search on Google ““mouth shield””, 27,900 hits.

Exhibit S Webster’s II New College Dictionary definition and etymology of the word “shield” showing the Old English spelling “Sciold”.

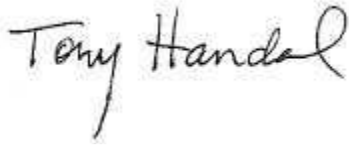
Exhibit T United States Trademark Registration Number 2,935,099 for “PRACTI-SHIELD”.

3. All of the above documents were obtained on the Internet except Exhibits A and S, which is a true and correct copy of the identified paper dictionaries.

4. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any trademark issued thereon.

Dated: New York, New York
October 31, 2011

Respectfully submitted,

A handwritten signature in black ink that reads "Tony Handal". The signature is written in a cursive, slightly slanted style.

By: _____

ANTHONY H. HANDAL
Attorney for Applicant
Handal & Morofsky, LLC
501 Kings Highway East
Fairfield, Connecticut 06825
(tel) 917-880-0811
(fax) 203-610-8102

Exhibit A

WEBSTER'S
NEW UNIVERSAL
UNABRIDGED
DICTIONARY

The dictionary entries are based on the
Second Edition of *The Random House
Dictionary of the English Language*

BARNES
& NOBLE
BOOKS
NEW YORK

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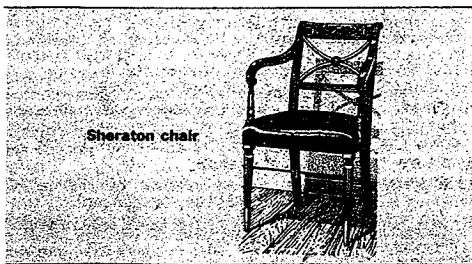
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M 9 8 7 6 5 4 3 2 1



Sheraton chair

Sher-a-ton (sher'ə tən), *n.* **1.** Thomas, 1751-1806, English cabinetmaker and furniture designer. —*adj.* **2.** of the style of furniture designed by Sheraton.

sher-bet (shūr'bit), *n.* **1.** a frozen fruit-flavored mixture, similar to an ice, but with milk, egg white, or gelatin added. **2. Brit.** a drink made of sweetened fruit juice diluted with water and ice. **3.** a frozen fruit or vegetable purée, served either between courses to cleanse the palate or as a dessert. [1595-1605; < Turk < Pers *sharbat* < Ar *sharbah* a drink]

Sher-brooke (shūr'brōōk), *n.* a city in S Quebec, in SE Canada. 76,804.

sherd (shūrd), *n.* shard.

Sher-idan (sher'i dn), *n.* **1.** Philip Henry, 1831-88, Union general in the Civil War. **2.** Richard Brinsley (brinz'lē), 1751-1816, Irish dramatist and political leader. **3.** a city in N Wyoming. 15,146. **4.** a male given name.

she-rif (she rēf'), *n.* **1.** a governor of Mecca descended from Muhammad. **2.** an Arab chief, prince, or ruler. Also, *sharif, she-roof'*. [1590-1600; < Ar *sharif* exalted (person)]

sher-iff (sher'if), *n.* **1.** the law-enforcement officer of a county or other civil subdivision of a state. **2.** (formerly) an important civil officer in an English shire. [bef. 1050; ME *sher(r)ef*, OE *sciregerefa*. See SHIRE, REEVE'] —**sher-iff-dom** (sher'if dəm), *n.*

sher-iff-al-ty (sher'i fal tē), *n., pl. -ties.* shrievalty. [1510-20; alter. of SHRIEVALTY by influence of SHERIFF]

sher-iff-wick (sher'if wik'), *n.* shrievalty. [1425-75; late ME; see SHERIFF, WICK']

sher-lock (shūr'lok), *n. Informal.* **1.** a private detective. **2.** a person remarkably adept at solving mysteries, esp. by using insight and logical deduction: *Who's the sherlock who can tell me where my pen is?* Also, *Sher'lock*. [after *Sherlock Holmes*, fictitious detective created by Arthur Conan Doyle]

Sher-lock (shūr'lok), *n.* a male given name: from an Old English word meaning "fair-haired."

Sher-lock-ian (shūr'lok'ē ən), *adj.* **1.** pertaining to or characteristic of the fictional detective Sherlock Holmes, known for his skill in solving mysteries through deductive reasoning. —**2.** a devoted fan of or an expert on the adventures of Sherlock Holmes. [see -IAN]

Sher-man (shūr'mən), *n.* **1.** Forrest Percival, 1896-1951, U.S. naval officer. **2.** James Wood-craft (skōol'kraft', -kräft'), 1855-1912, vice president of the U.S. 1909-12. **3.** John, 1823-1900, U.S. statesman (brother of William T.). **4.** Roger, 1721-93, American statesman. **5.** Stuart Pratt, 1881-1926, U.S. critic and educator. **6.** William Tecumseh, 1820-91, Union general in the Civil War. **7.** a city in NE Texas. 30,413. **8.** a male given name. **9.** U.S. Mil. a 34-ton medium tank of World War II, with a 75mm gun and a crew of four.

Sher-man Antitrust' Act, an act of Congress (1890) prohibiting any contract, conspiracy, or combination of business interests in restraint of foreign or interstate trade. Cf. **Clayton Antitrust Act**. [named after John SHERMAN, who introduced the bill in Congress]

Sher-pa (sher'pə, shūr'-), *n., pl. -pas*, (esp. collectively) —**pa.** **1.** a member of a people of Tibetan stock living in the Nepalese Himalayas, who often serve as porters on mountain-climbing expeditions. **2.** (sometimes l.c.) an expert chosen by a chief executive to assist in preparations for a summit meeting.

Sher-riff (sher'rif), *n.* Robert Cedric, 1896-1975, English playwright and novelist.

Sher-rill (sher'el), *n.* a male or female given name, form of Shirley.

Sher-ri-ng-ton (sher'ing tən), *n.* Sir Charles Scott, 1861-1952, English physiologist; Nobel prize for medicine 1932.

sher-ris (sher'is), *n.* Archaic. sherry. [1530-40; < Sp (*vino de*) *Xeres* (wine of) Xeres (now JEREZ)]

sherry (sher'ē), *n., pl. -ries.* a fortified, amber-colored wine of southern Spain or any of various similar wines made elsewhere. [1590-1600; back formation from SHERRIS, construed as a plural]

Sher-ry (sher'ē), *n.* a female given name, form of Charlotte.

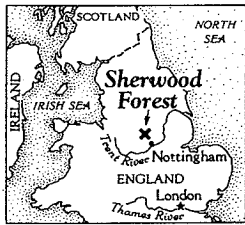
sher-ry cob/bler, a cobbler drink made with sherry, sliced fruits, and ice. [1800-10]

's Her-to-gen-bosch (see'tō khən bōs'), a city in and the capital of North Brabant, in the S Netherlands. 88,585. French, *Bois-le-Duc*.

Sher-tok (shēr tōk'), *n.* Mo-she (mō'shə). See **Sharrett, Moshe**.

Sher-wood (shūr'wōōd'), *n.* **1.** Robert Em-met (em'it), 1896-1955, U.S. dramatist. **2.** a town in central Arkansas. 10,586. **3.** a male given name.

Sher-wood For'est, an ancient royal forest in central England, chiefly in Nottinghamshire: the traditional haunt of Robin Hood.



Sher-yl (sher'el), *n.* a female given name, form of Shirley.

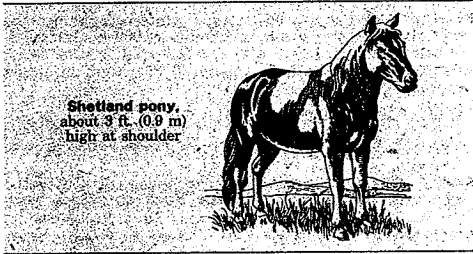
she's (shēz), **1.** contraction of *she is*. **2.** contraction of *she has*.

—**Usage.** See contraction.

She/ Stoops' to Con/quer, a comedy (1773) by Oliver Goldsmith.

Shet/land Is/lands (shet'lənd), an island group NE of the Orkney Islands; northernmost part of Great Britain. 18,494; 550 sq. mi. (1,425 sq. km). Also called **Shet'/land, Zetland**. —**Shet'/land Is'/land-er**.

Shet/land po'ny, one of a breed of small but sturdy, rough-coated ponies, raised originally in the Shetland Islands. [1795-1805]



Shetland pony, about 3 ft. (0.9 m) high at shoulder

Shet/land sheep'/dog, one of a breed of small sheepdogs resembling a miniature collie, raised originally in the Shetland Islands. [1930-35]

Shet/land wool', **1.** the fine wool undercoat pulled by hand from Shetland sheep. **2.** thin, loosely twisted wool yarn for knitting or weaving. [1780-90]

shough (shōōkh), *Scott. and North Eng.* —**1.** a furrow, ditch, or trench. —**2.** to plow or dig (a furrow, ditch, etc.). Also, **shouch** (shōōkh). [1495-1505; N dial. var. of *sough*']

Shew-ard-na-dze (shew'ard nād'zē; Russ. shi vurd-nā'dzə), *n.* Ed-uard A. (ed'ward; Russ. ed vārt'), born 1928, Soviet foreign minister 1985-91; chairman of State Council of his native Georgian Republic since 1992.

She-vat (shə vāt', shvāt', shə vōt'), *n.* the fifth month of the Jewish calendar. Also, **Shebat**. Cf. **Jewish calendar**. [1620-35; < Heb *shəbhāt*]

shew-er-ret (shew ə ret', shə vret'), *n.* cheveret.

shew (shō), *v.i., v.t., showed, shewn, showing, n. Archaic.* show.

shew-bread (shē'bred'), *n. Judaism.* the 12 loaves of bread placed every Sabbath on a table in the sanctuary of the Biblical tabernacle and the Temple in Jerusalem as an offering by the priests to God. Ex. 25:30; Lev. 24:5-9. Also, **showbread**. [1530; SHEW + BREAD, modeled on G. *Schaubrot*, which renders Gk *ártōi enōpioi*, trans. of Heb *lehem panim*]

she-wolf (shē'wōōlf'), *n., pl. -wolves.* **1.** a female wolf. **2.** a predatory woman.

SHF, See **superhigh frequency**.

shh (sh), *interj.* sh.

Shi'ah (shē'ə), *n. Islam.* **1.** (used with a plural *v.*) the Shi'ites. **2.** (used with a singular *v.*) Shi'ite. Also, **Shi'a**. [1620-30; < Ar *shī'ah* lit., sect]

shi-at-su (shē āt'sōō), *n. (sometimes cap.)* a Japanese massage technique that includes the use of acupressure. Also **shi-at-zu**. [*<* Japn < MChin, equiv. to Chin *chi* finger + *yō* pressure]

shib-bah (shiv'ə), *n. Judaism.* shivah.

Shib-bah A-sar Bet-am-muz (Seph. Heb. shē vā' ā sār' bi tā'mōōz; Ashk. Heb. shiv'ə ó sār bi tā'mōōz, shi vō' ó sōr'). See **Shivah Asar Betammuz**.

shib-bo-leth (shiv'bə lith, -leth'), *n.* **1.** a peculiarity of pronunciation, behavior, mode of dress, etc., that distinguishes a particular class or set of persons. **2.** a slogan; catchword. **3.** a common saying or belief with little current meaning or truth. [*<* Heb *shibboleth* lit., freshet, a word used by the Gileadites as a test to detect the fleeing Ephraimites, who could not pronounce the sound *sh* (Judges 12:4-6)]

shic-er (shī'sar), *n. Australian.* **1.** Slang. a swindler. **2.** any unscrupulous person. [1850-55; < G *Scheisser*, equiv. to *scheiss(en)* to SHIT + -er -er']

shick-er (shik'ər), *n. Slang.* **1.** alcoholic liquor. **2.** a drunkard. [1890-95; < Yiddish *shiker* (see SHICKERED) by back formation from SHICKERED]

shick-ered (shik'ərd), *adj. Slang.* intoxicated; drunk. [1910-15; < Yiddish *shiker* (< Heb *shikkōr* drunk, a drunkard) + -ed']

shied (shid), *v. pt. and pp. of shy.*

shiel (shēl), *n. Scot.* shieling. [1250-1300; ME *schele*; cf. ON *skáli* hut, shed; akin to OE *scyr* hut, OHG *scür*, ON *skurr* penthouse]

shield (shēld), *n.* **1.** a broad piece of armor, varying widely in form and size, carried apart from the body, usually on the left arm, as a defense against swords, lances, arrows, etc. **2.** a similar device, often of lightweight plastic, used by riot police to protect themselves from rocks and other thrown objects. **3.** something shaped like a shield, variously round, octagonal, triangular, or somewhat heart-shaped. **4.** a person or thing that protects. **5.** a police officer's, detective's, or sheriff's badge. **6. Ordn.** a steel screen attached to a gun to protect its crew, mechanism, etc. **7. Mining.** a movable framework for protecting a miner from cave-ins, etc. **8. Elect.** a covering, usually made of metal, placed around an electric device or circuit in order to reduce the effects of external electric and magnetic fields. **9. Zool.** a protective plate or the like on the body of an animal. **10. See dress shield.** **11. Heraldry.** an escutcheon, esp. one broad at the top and pointed at the bottom, for displaying armorial bearings. **12. (cap.) Astron.** the constellation Scutum. **13. Geol.** a vast area of ancient crustal rocks which, together with a platform, constitutes a craton. **14.** a protective barrier against nuclear radiation, esp. a lead or concrete structure around a reactor.



S, shield (def. 1)

—**v.t.** **15.** to protect (someone or something) with or as if with a shield. **16.** to serve as a protection for. **17.** to hide or conceal. **18.** Obs. to avert; forbid. —**v.i.** **19.** to act or serve as a shield. [bef. 900; (n.) ME *shelde*, OE *sceld*; c. D, G *Schild*, Goth *skildus*; (v.) ME *shelden*, OE *sceldan*, *scildan*, deriv. of the *n.*] —**shield'er**, *n.* —**shield/less**, *adj.* —**shield/like**, *adj.*

shield' back', a chair back having a form resembling that of a somewhat heart-shaped medieval shield. Also called **heart back**. [1895-1900]

shield' bear'er, an attendant who carries the shield or arms of a warrior. [1595-1605]

shield' fern', any of numerous ferns of the genera *Dryopteris* and *Polystichum*, having shield-shaped fronds. [1805-15]

shield' law', a law protecting journalists from forced disclosure of confidential sources of information. [1970-75]

Shield' of Da'vid. See **Star of David**.

shield'-tailed snake' (shēld'tāld'), any of several burrowing snakes of the family Uropeltidae, of the Indian peninsula and Sri Lanka, having a tail that ends in a flat disk. Also called **shield-tail** (shēld'tā'l').

shiel-ing (shē'ling), *n. Scot.* **1.** a pasture or grazing ground. **2.** a shepherd's or herdsman's hut or rough shelter on or near a grazing ground. Also, **shealing**. **shiel**. [1560-70; SHIEL + -ING']

shier' (shī'ər), *adj.* a compar. of **shy'**.

shier' (shī'ər), *n.* a horse having a tendency to shy. Also, **shyer**. [1820-30; shv' + -er']

shiest (shī'ist), *adj.* a superlative of **shy'**.

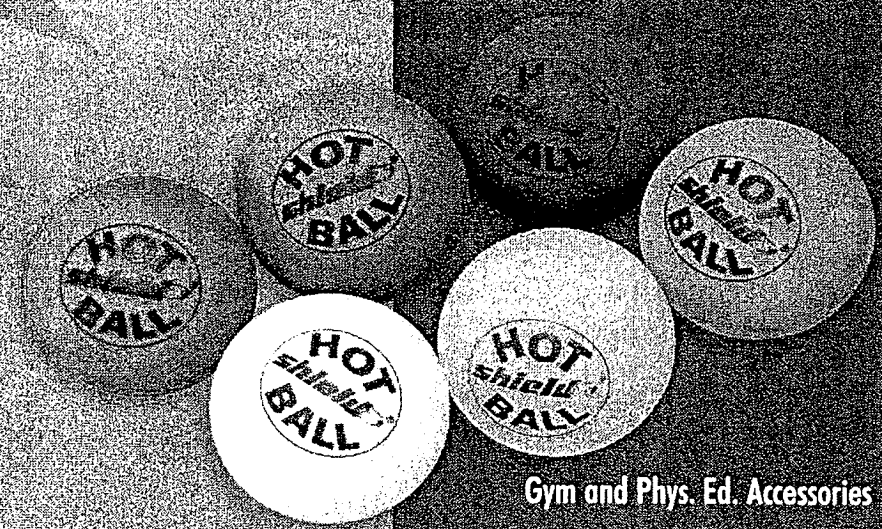
shift (shift), *v.t.* **1.** to put (something) aside and replace it by another or others; change or exchange: *to shift friends; to shift ideas*. **2.** to transfer from one place, position, person, etc., to another: *to shift the blame onto someone else*. **3. Auto.** to change (gears) from one ratio or arrangement to another. **4. Ling.** to change in a systematic way, esp. phonetically. **5. shift gears**. See **gear** (def. 11). —**v.i.** **6.** to move from one place, position, direction, etc., to another. **7.** to manage to get along or succeed by oneself. **8.** to get along by indirect methods; use any expediency, trick, or evasion to get along or succeed: *He shifted through life*. **9.** to change gears in driving an automobile. **10. Ling.** to undergo a systematic, esp. phonetic, change. **11.** to press a shift key, as on a typewriter keyboard. **12. Archaic.** to change one's clothes. —**n.** **13.** a change or transfer from one place, position, direction, person, etc., to another: *a shift in the wind*. **14.** a person's scheduled period of work, esp. the portion of the day scheduled as a day's work when a shop, service, office, or industry operates continuously during both the day and night: *She prefers the morning shift*. **15.** a group of workers scheduled to work during such a period: *The night shift reported*. **16. Baseball.** a notable repositioning by several fielders to the left or the right of their normal playing position, an occasional strategy against batters who usually hit the ball to the same side of the field. **17. Auto.** a gearshift. **18. Clothing.** a, a straight, loose-fitting dress worn with or without a belt. b, a woman's chemise or slip. **19. Football.** a lateral or backward movement from one position to another, usually by two or more offensive players just before the ball is put into play. **20. Mining.** a dislocation of a seam or stratum; fault. **21. Music.** a change in the position of the left hand on the fingerboard in playing a stringed instrument. **22. Ling.** a change or system of parallel changes that affects the sound structure of a language, as the series of related changes in the English vowel system from Middle English to Modern English. b, a change in the meaning or use of a word. Cf. **functional**

CONCISE ETYMOLOGY KEY: <, descended or borrowed from; >, whence; b, blend of; blended; c, cognate with; cf., compare; deriv., derivative; equiv., equivalent; imit., imitative; obl., oblique; n., replacing; s, stem; sp., spelling, spelled; resp., respelling, spelled; trans., translation; ? , origin unknown; * , unattested; † , probably earlier than. See the full key inside the front cover.

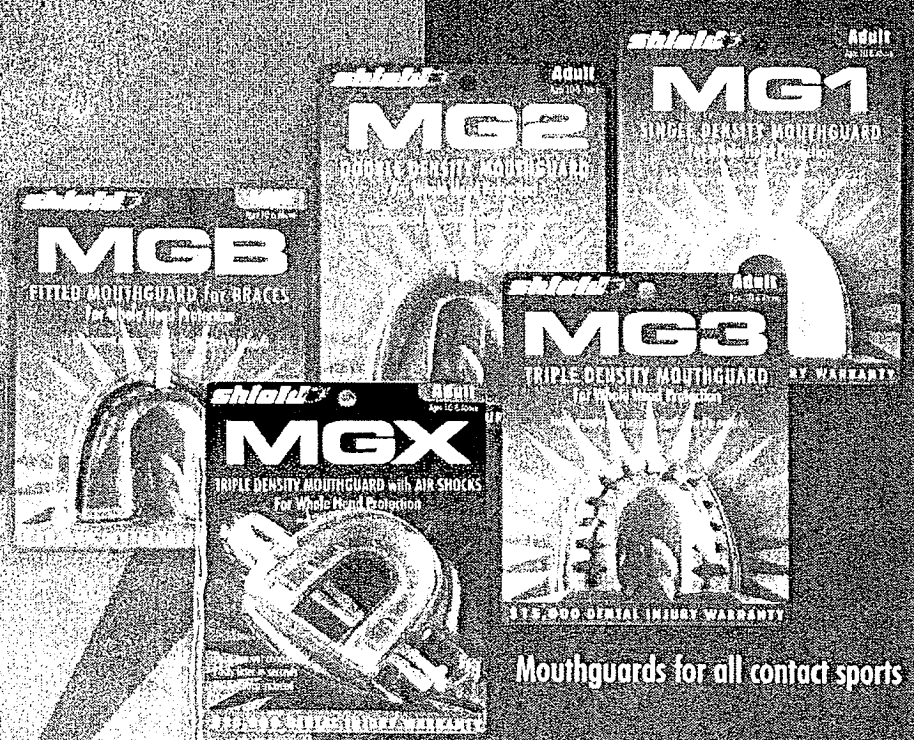
Exhibit B

SHIELDS®

Indoor and Outdoor
Hockey Equipment and Accessories



Gym and Phys. Ed. Accessories



Mouthguards for all contact sports

SPORTS EQUIPMENT FOR SCHOOLS, TEAMS, AND INDIVIDUALS.

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All About Our Hockey Equipment

Everything you need for every age to play hockey indoors and out!

INDOOR HOCKEY SETS

Max the use of your gym with specially made Shield Indoor Hockey Sets and you'll offer your students a fun, safe and economical way to play indoors. Blades are thinner for use on wood floors, and with our optional **Indoor Team Hockey Circuit Sets** (page 5), you can teach teamwork, agility, hand-eye coordination, cooperation, and communication with a proven lesson plan.

OUTDOOR HOCKEY SETS

Shield Outdoor Hockey Sets offer a fun, safe and economical way to play hockey outdoors. Choose from our patented **ABS plastic shaft** (Elementary or Middle School); strong **wood shaft** (Middle School or High School/Collegiate); or the lightweight and powerful **aluminum shaft** (Middle School or High School/Collegiate).

All shafts are combined with our thick plastic-reinforced outdoor blades that will keep this gear in play for years. Blades are designed for outdoor use.

ORDERING

Shield Team Hockey Equipment can be purchased from any authorized Shield Distributor. Call us or check our website for more information.

NEW! LTG INDOOR AND OUTDOOR HOCKEY SETS



LTG stands for LifeTime Guarantee, and these are the strongest and most durable sticks in the world! Made in the USA, the LTG is a cost effective, strong and durable stick that will not crack, break, or splinter because of the tough plastic shaft which is reinforced by a fiberglass dowel. Shafts are guaranteed for life.

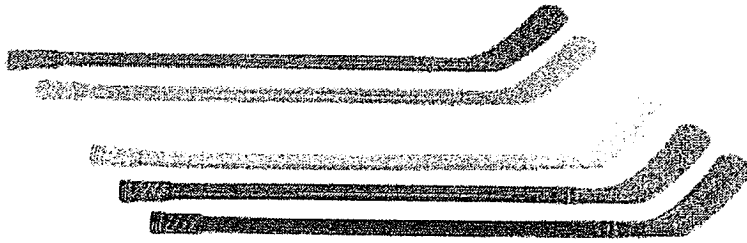
HOW TO MEASURE STICKS

Shield uses the American method of measuring sticks. Place a stick against the wall and measure from the top of the stick to the heel of the blade.

Up to 36"	Elementary School
42" - 45"	Middle School
50" - 56"	High School/Collegiate

Indoor Team Hockey — Elementary School

#738



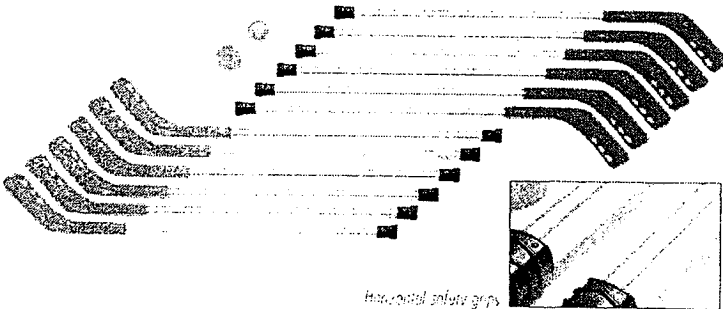
36" Rainbow Sticks

These durable, compression molded, one-piece sticks will last for years. They are available in every color of the rainbow — red, orange, yellow, green, blue or purple!

- Qty: Rainbow Stick Set Includes:
 6 36" Elementary Hockey Sticks #738

Specify: red, orange, yellow, green, blue or purple
 Case Quantity: 6 (all one color)

#848



36" Deluxe Hockey Set with Safety Grip

Soft horizontal safety strips add strength and gripping power. This stick is 30% stronger than our old Elementary stick. Upscale, contemporary design adds durability and safety to this innovative hockey set.

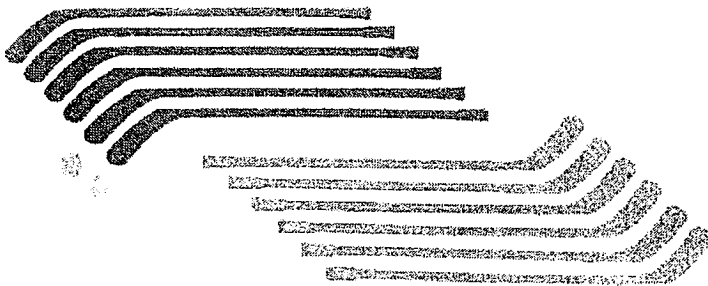
Additional Equipment Available

- Qty: Basic Set Includes:
 12 36" Deluxe Hockey Sticks #847
 1 Hotball™ #831
 1 Soft Shot Puck™ #821
 1 Instruction Booklet

Additional 36" Deluxe Sticks #847
 Case Quantity: 6
 Colors: 6 red or 6 blue

Replacement Blades #899
 Case Quantity: 12
 Colors: 12 red or 12 blue

#898



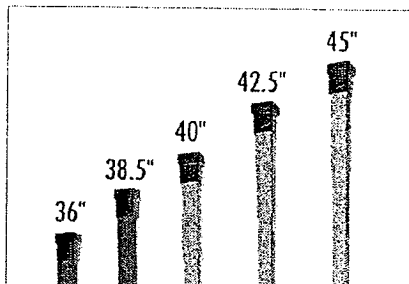
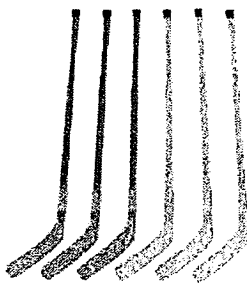
36" Compression Molded Hockey Set

Our Compression Molded School Set is 100% stiffer and 100% stronger than our old set! The one-piece construction eliminates any loose parts that may get lost. The ribbed design makes the stick almost indestructible. This is an economical, high-quality hockey set.

- Qty: Compression Molded Set Includes:
 12 36" One-piece Sticks #838
 1 Ball
 1 Puck
 1 Instruction Booklet

Additional Equipment Available
 Additional 36" One-piece Sticks #838
 Case Quantity: 6
 Colors: 6 red or 6 blue

#858



36"-45" Indoor Extend-a-Stick Set

Although they may be the same age, most students are not the same size! That's where our Indoor Extend-a-Sticks come in. Made with tough, ABS plastic shafts, they're easily adjusted to fit all players. That means cost efficiency and safer play for different sized players.

Case Quantity: 6 sticks
 Colors: 3 red and 3 blue

Indoor Team Hockey — Middle School

#895P



42" Basic Plastic Hockey Set

A great value on our strongest plastic set. Patented ABS plastic shafts with reinforced plastic blades.

Additional Equipment Available

- Qty Basic Set Includes:
- 12 42" Plastic Sticks #850
 - 1 Hotball™ #831
 - 1 Soft Shot Puck™ #821
 - 1 Instruction Booklet

- Additional 42" Plastic Sticks #850
Case Quantity: 6
Colors: 6 red or 6 blue
- Replacement Plastic Shafts #851
Case Quantity: 6
- Replacement Blades #896
Case Quantity: 12
Colors: 12 red or 12 blue

#895



42" Deluxe Plastic Hockey Set

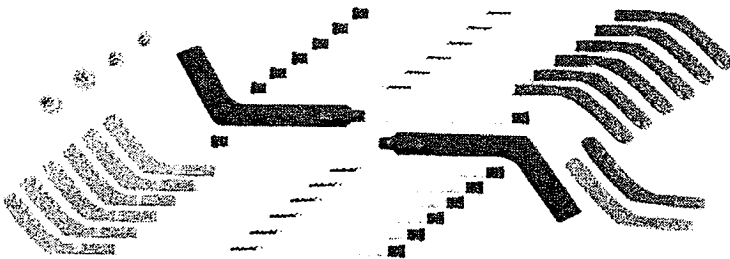
We combine the strength of our patented ABS plastic shafts with long lasting, reinforced plastic blades for unmatched quality!

Additional Equipment Available

- Qty Deluxe Set Includes:
- 12 42" Plastic Sticks #850
 - 7 Plastic Goalie Sticks #862
 - 2 Hotballs™ #831
 - 2 Soft Shot Pucks™ #821
 - 2 Replacement Blades #896
 - 1 Instruction Booklet

- Additional 42" Plastic Sticks #850
Case Quantity: 6
Colors: 6 red or 6 blue
- Replacement Plastic Shafts #851
Case Quantity: 6
- Replacement Blades #896
Case Quantity: 12
Colors: 12 red or 12 blue

#890



42" Wood Hockey Set

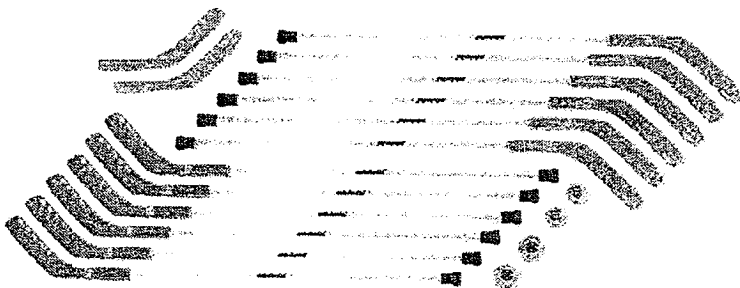
You can count on these strong hardwood shafts and reinforced plastic blades for durability. A well-made traditional wood set.

Additional Equipment Available

- Qty Wood Set Includes:
- 12 42" Wood Sticks #855
 - 7 Wood Goalie Sticks #861
 - 2 Hotballs™ #831
 - 2 Soft Shot Pucks™ #821
 - 2 Replacement Blades #891
 - 1 Instruction Booklet

- Additional 42" Wood Sticks #855
Case Quantity: 6
Colors: 6 red or 6 blue
- Replacement Wood Shafts #856
Case Quantity: 6
- Replacement Blades #891
Case Quantity: 12
Colors: 12 red or 12 blue

#893



45" Aluminator® Hockey Set

Our lightweight and powerful aluminum shafts have a convex shape that's easy to grip and allows for better stick handling. Teamed with our reinforced plastic blades, this is a proven winner.

Additional Equipment Available

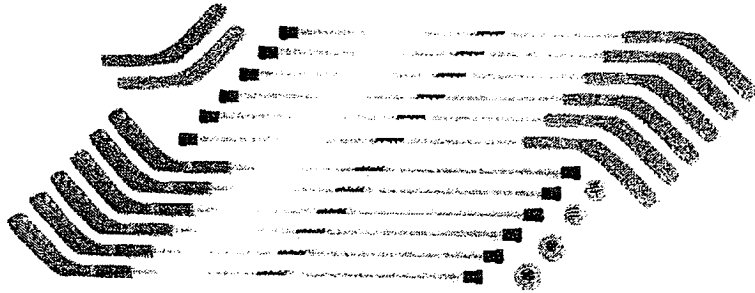
- Qty Aluminator® Set Includes:
- 12 45" Aluminator® Sticks #854
 - 2 Hotballs™ #831
 - 2 Soft Shot Pucks™ #821
 - 2 Replacement Blades #896
 - 1 Instruction Booklet

- Additional 45" Aluminator® Sticks #854
Case Quantity: 6
Colors: 6 red or 6 blue
- Replacement Blades #896
Case Quantity: 12
Colors: 12 red or 12 blue

Indoor Team Hockey — High School & Collegiate

#892

50" Aluminator® Hockey Set



This school set has strong aluminum shafts with convex shape and reinforced plastic blades. Great grip improves stick handling.

Additional Equipment Available

Qty Aluminator® Set Includes:

- 12 50" Aluminator® Sticks #853
- 2 Hotballs #834
- 2 Soft Shot Pucks #821
- 2 Replacement Blades #896
- 1 Instruction Booklet

Additional 50" Aluminator® Sticks #853

Case Quantity: 6
Colors: 6 red or 6 blue

Replacement Blades #896

Case Quantity: 12
Colors: 12 red or 12 blue

Indoor Team Hockey Circuit Sets — Elementary & Middle School

Our Hockey Circuit teaches teamwork, agility, hand-eye coordination, cooperation and communication. An economical way to purchase enough floor hockey equipment to keep 30 students moving.

#872

Elementary School Set

Qty Elementary School Hockey Circuit Set Includes:

- 30 36" Compression Molded Sticks #838
- 2 Soft Shot Pucks™ #821
- 2 Speed Control Balls™ #834
- 1 Set of Shield Barriers #807
- 1 Set of Tag-a-Long Straps #807
- 1 Set of Tag-a-Long Extenders #807
- 1 Foolproof activity guide written in a detailed lesson plan

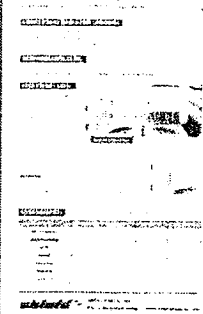
#878

Middle School Set

Qty Middle School Hockey Circuit Set Includes:

- 30 42" ABS Plastic Sticks #851
- 2 Soft Shot Pucks™ #821
- 2 Speed Control Balls™ #834
- 1 Set of Shield Barriers #807
- 1 Set of Tag-a-Long Straps #807
- 1 Set of Tag-a-Long Extenders #807
- 1 Foolproof activity guide written in a detailed lesson plan

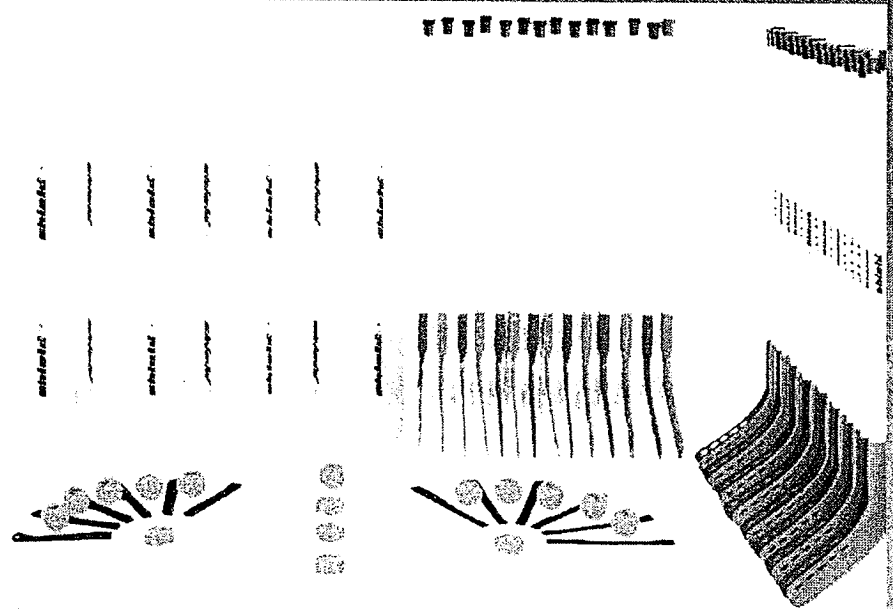
FLOOR HOCKEY Skill & Activity Circuit



Includes activity guide with laminated instruction cards



Shield



Shield

www.ShieldSports.com | 1.800.828.7669

Indoor Team Hockey 5

Indoor & Outdoor Team Hockey — **NEW!** LTG Sets

LTG LifeTime Guarantee

MADE IN THE USA — the strongest and most durable sticks in the world!

Shield Sports is dedicated to your safety and satisfaction, and to prove how confident we are in the quality of our new LTG stick, we're offering a lifetime guarantee on the shafts of the entire series! The LTG is a cost-effective, strong and durable stick that will not crack, break, or splinter because of its unique construction: a tough plastic shaft reinforced by a fiberglass dowel.

SHAFTS ARE GUARANTEED FOR LIFE!



ELEMENTARY SCHOOL SETS
One-piece Black ABS Plastic Shaft

Patented ABS plastic shafts are guaranteed for life!



MIDDLE SCHOOL SETS
Clear Shaft with Hollow Fiberglass Tube

The clear plastic shaft encases a lightweight fiberglass tube that matches the color of the blade. Guaranteed for life!

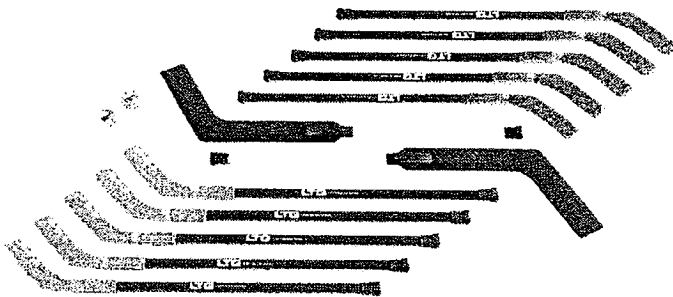


HIGH SCHOOL & COLLEGIATE SETS
Black Shaft with Solid Fiberglass Rod

This tough plastic shaft encasing its lightweight fiberglass rod can shoot and score like no other. Guaranteed for life!

#888 / #788

36" Elementary School Set



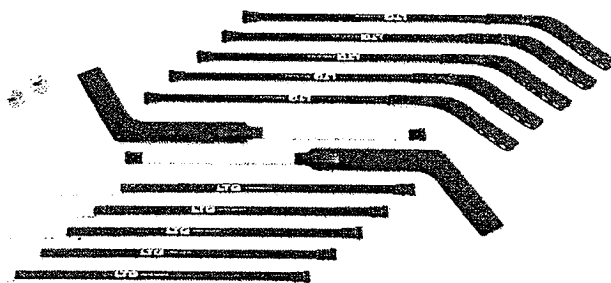
These are the strongest ABS shafts available! Patented and guaranteed for life!

#888 Indoor Elementary Set

Additional Equipment Available

- Qty Indoor Set Includes:
- 5 36" Sticks with red blades
 - 5 36" Sticks with blue blades
 - 2 ABS goalie sticks #867
 - 2 Speed Control Balls™ #837

INDOOR
Replacement Blades #899
Case Quantity: 12
Colors: 12 red or 12 blue



#788 Outdoor Elementary Set

Additional Equipment Available

- Qty Outdoor Set Includes:
- 5 36" Sticks with white blades
 - 5 36" Sticks with black blades
 - 2 ABS goalie sticks #867
 - 2 Speed Control Balls™ #837

OUTDOOR
Replacement Blades #897
Case Quantity: 12
Colors: 12 white or 12 black

LTG Hockey Sets



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Shield Sports

Indoor & Outdoor Team Hockey — **NEW!** LTG Sets

#875 / #775



42" Middle School Set with Fiberglass Tube

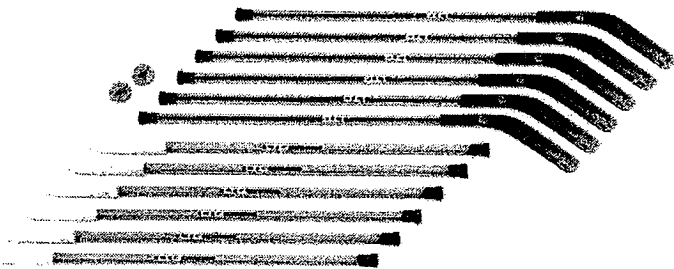
The strongest stick in North America!
Clear plastic shaft with lightweight fiberglass tube that matches the color of the blade!

#875 Indoor Middle School Set

Qty	Indoor Set Includes:
6	42" Sticks with red blades
6	42" Sticks with blue blades
2	Speed Control Balls® #832

Additional Equipment Available

INDOOR	
Replacement Blades	#896
Case Quantity:	12
Colors:	12 red or 12 blue



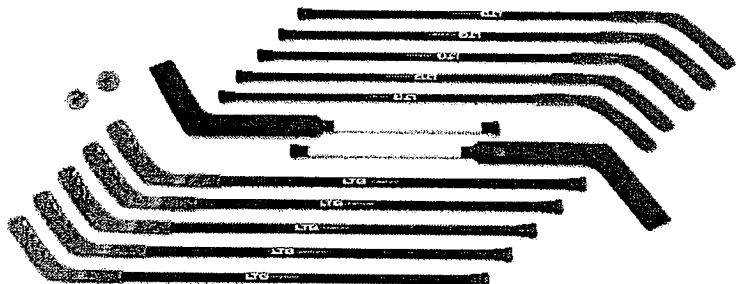
#775 Outdoor Middle School Set

Qty	Outdoor Set Includes:
6	42" Sticks with white blades
6	42" Sticks with black blades
2	Speed Control Balls® #832

Additional Equipment Available

OUTDOOR	
Replacement Blades	#897
Case Quantity:	12
Colors:	12 white or 12 black

#885 / #785L



50" H.S./Collegiate Set with Fiberglass Rod

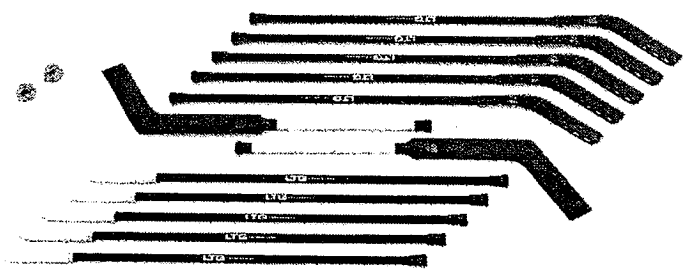
This tough plastic shaft with lightweight fiberglass rod can take any beating students can give it!

#885 Indoor H.S./Collegiate Set

Qty	Indoor Set Includes:
5	50" Sticks with red blades
5	50" Sticks with blue blades
2	ABS goalie sticks #862
2	Speed Control Balls® #832

Additional Equipment Available

INDOOR	
Replacement Blades	#896
Case Quantity:	12
Colors:	12 red or 12 blue



#785L Outdoor H.S./Collegiate Set

Qty	Outdoor Set Includes:
5	50" Sticks with white blades
5	50" Sticks with black blades
2	ABS goalie sticks #862
2	Speed Control Balls® #832

Additional Equipment Available

OUTDOOR	
Replacement Blades	#897
Case Quantity:	12
Colors:	12 white or 12 black

Outdoor Team Hockey

#798



36" Elementary School ABS Plastic Set

Affordable and long lasting, Shield's patented ABS plastic shaft comes with our thick plastic reinforced blades!

Additional Equipment Available

Additional 36" Plastic Sticks #788

Case Quantity: 6
Colors: 6 white or 6 black

Replacement Blades #897

Case Quantity: 12
Colors: 12 white or 12 black

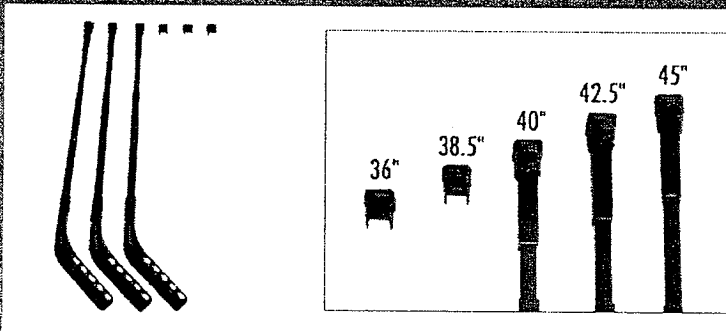
Qty: 36" Plastic Set Includes:

12 36" ABS Plastic Sticks #788

2 Speed Control Balls™ #832

1 Instruction Booklet

#758



36" - 45" Outdoor Extend-a-Stick Set

Although they may be the same age, most students are not the same size! That's where our Extend-a-Sticks come in. Made with tough, ABS plastic shafts, they easily adjust to fit every size player. That means cost efficiency and safe play for different sized players.

Case Quantity: 6 sticks
Colors: 3 black and 3 white

#785



42" Middle School ABS Plastic Set

Affordable and long lasting, Shield's patented ABS plastic stick will give you everything you need at a price that's right!

Additional Equipment Available

Additional 42" Plastic Sticks #784

Case Quantity: 6
Colors: 6 white or 6 black

Replacement Blades #897

Case Quantity: 12
Colors: 12 white or 12 black

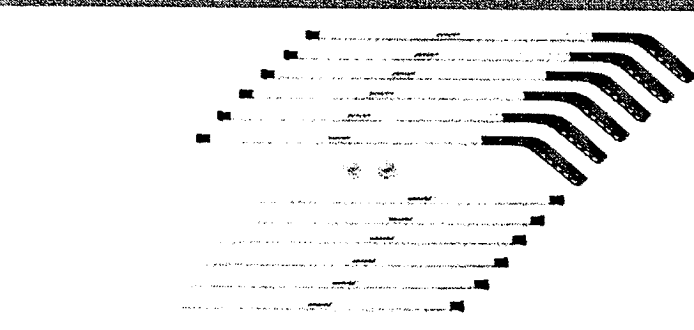
Qty: 42" Plastic Set Includes:

12 42" Plastic Hockey Sticks #784

2 Speed Control Balls™ #832

1 Instruction Booklet

#790



42" Middle School Wood Set

Wood is tough and durable, and the traditional choice for sticks! Combines with our thick plastic reinforced blades!

Additional Equipment Available

Additional 42" Wood Sticks #789

Case Quantity: 6
Colors: 3 white or 3 black

Replacement Blades #897

Case Quantity: 12
Colors: 12 white or 12 black

Qty: 42" Wood Set Includes:

12 42" Wood Hockey Sticks #789

2 Speed Control Balls™ #832

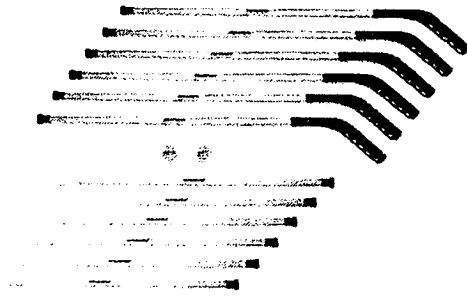
1 Instruction Booklet

Outdoor Team Hockey



Outdoor Team Hockey

#793



45" Middle School Aluminum Set

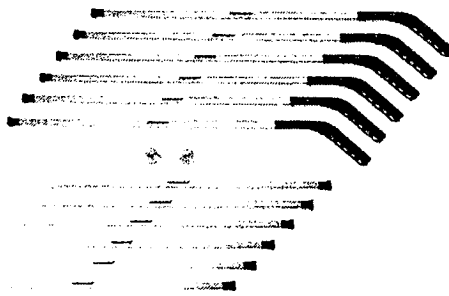
Lightweight and strong aluminum shaft combines with our plastic reinforced blades for Middle School sizes.

Additional Equipment Available

- Qty 45" Aluminum Set Includes:
- 12 45" Aluminum Sticks #787
 - 2 Speed Control Balls® #832
 - 1 Instruction Booklet

- Additional 45" Aluminum Sticks #787
Case Quantity: 6
Colors: 6 white or 6 black
- Replacement Blades #897
Case Quantity: 12
Colors: 12 white or 12 black

#792



50" H.S./Collegiate Aluminum Set

Lightweight and strong aluminum shaft combines with our plastic reinforced blades for one of the toughest sticks around.

Additional Equipment Available

- Qty 50" Aluminum Set Includes:
- 12 50" Aluminum Sticks #786
 - 2 Speed Control Balls® #832
 - 1 Instruction Booklet

- Additional 50" Aluminum Sticks #786
Case Quantity: 6
Colors: 6 white or 6 black
- Replacement Blades #897
Case Quantity: 12
Colors: 12 white or 12 black

#730



56" H.S./Collegiate Aluminum Set

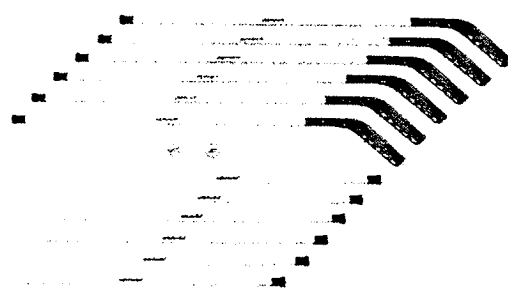
Here's our lightweight champion sized up a notch. Same strong aluminum shaft and reinforced plastic blade.

Additional Equipment Available

- Qty 56" Aluminum Set Includes:
- 12 56" Aluminum Sticks #735
 - 2 Speed Control Balls® #832
 - 1 Instruction Booklet

- Additional 56" Aluminum Sticks #735
Case Quantity: 6
Colors: 6 white or 6 black
- Replacement Blades #897
Case Quantity: 12
Colors: 12 white or 12 black

#740



56" H.S./Collegiate Wood Set

Wood is tough and durable, and the traditional choice for sticks! Combines with our thick plastic reinforced blades!

Additional Equipment Available

- Qty 56" Wood Set Includes:
- 12 56" Wood Hockey Sticks #745
 - 2 Speed Control Balls® #832
 - 1 Instruction Booklet

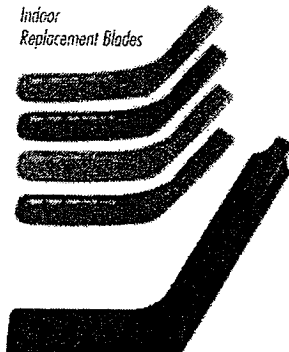
- Additional 56" Wood Sticks #745
Case Quantity: 6
Colors: 6 white or 6 black
- Replacement Blades #894
Case Quantity: 12
Colors: 12 white or 12 black

Team Hockey Accessories

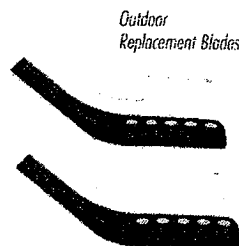
Indoor & Outdoor Replacement Blades



Indoor Replacement Blades



Replacement Goalie Blades



Outdoor Replacement Blades

For safety reasons, never interchange Outdoor and Indoor Blades!

Outdoor surfaces like concrete and asphalt can wear thinner indoor blades to the point where they can actually become sharp enough to be dangerous. Conversely, outdoor blades are heavier and thicker to stand up to asphalt and concrete.

Indoor Replacement Blades with Air Flow #896

Case Quantity: 12
Color: 12 red or 12 blue

These Blades are compatible with:

42" Deluxe Plastic Hockey Set	#895
42" Basic Plastic Hockey Set	#895P
42" Basic Plastic Hockey Stick	#893
45" Aluminator® Hockey Set	#854
45" Aluminator® Hockey Stick	#892
50" Aluminator® Hockey Set	#853

Indoor Replacement Blades with Air Flow #899

Case Quantity: 12
Color: 12 red or 12 blue

These Blades are compatible with:

36" Compression Molded Hockey Set	#898
36" Compression Molded Hockey Sticks	#838

Indoor Replacement Blades with Air Flow #891

Case Quantity: 12
Color: 12 red or 12 blue

These Blades are compatible with:

42" Traditional Wood Hockey Set	#890
42" Traditional Wood Hockey Stick	#855

Replacement Goalie Blades #863

Case Quantity: 2
Color: Black

Outdoor Replacement Blades with Air Flow #897

Case Quantity: 12
Color: 12 white or 12 black

These Blades are compatible with:

36" Plastic Set	#798
36" Plastic Stick	#751
42" ABS Plastic Set	#785
42" ABS Plastic Stick	#752
45" Aluminum Set	#793
45" Aluminum Stick	#754
50" Aluminum Set	#792
50" Aluminum Stick	#753
56" Aluminum Set	#730
56" Aluminum Stick	#735

Outdoor Replacement Blades with Air Flow #894

Case Quantity: 12
Color: 12 white or 12 black

These Blades are compatible with:

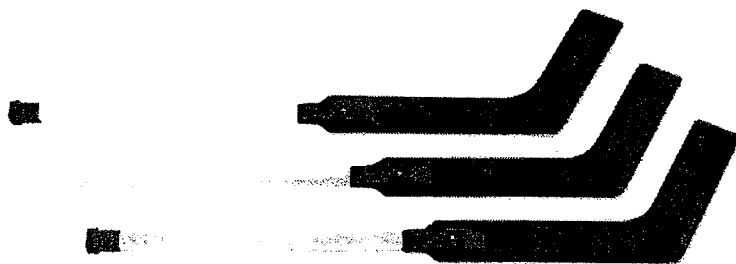
42" Wood Set	#790
42" Hardwood Stick	#789
56" Wood Set	#740
56" Hardwood Stick	#745

These Blades are compatible with:

40" Wood Goalie Stick	#861
40" Plastic Goalie Stick	#862
40" Aluminator® Goalie Stick	#866

#862 / #861 / #866

Goalie Sticks



#862 40" Plastic Goalie Stick

Guard your goal with our toughest ABS plastic shaft with butt end and large heavy-duty black plastic blade. Case Quantity: 2

#861 40" Wood Goalie Stick

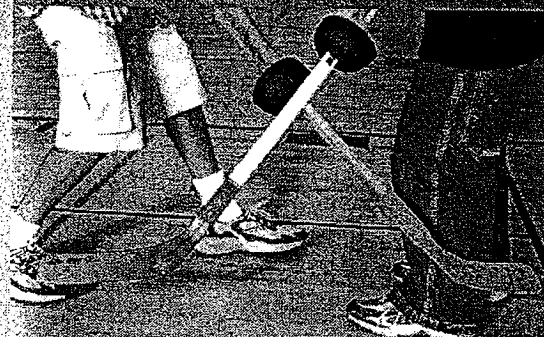
Block that shot with this traditional hardwood shaft. Combined with our large heavy-duty black plastic blade for durability. Case Quantity: 2

#866 40" Aluminator® Goalie Stick

Designed for strength and improved grip. This patented convex shaft with butt end and large heavy-duty black plastic blade is a great goaltender. Case Quantity: 2

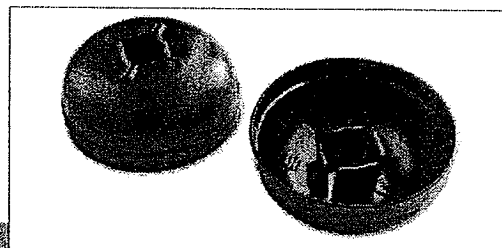
#873

Hand Shields



The Hand Shield easily slips on all hockey shafts and moves up and down the shaft as the player moves hand positions. Protects hands from errant balls, pucks, and sticks. Makes hockey more enjoyable!

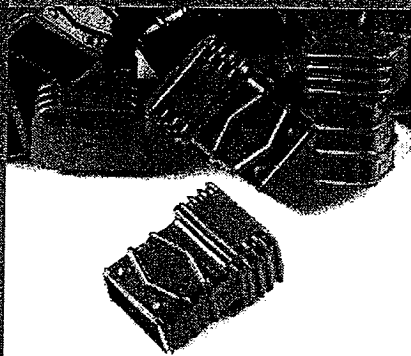
Case Quantity: 12



Team Hockey Accessories

#874

Butt Ends



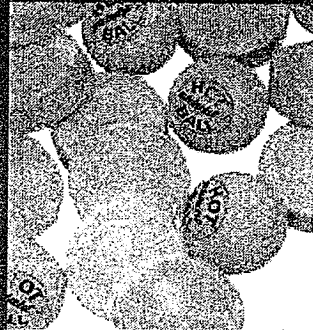
Improves durability on all shafts.

Case Quantity: 12

#821

#831

Soft Shot Pucks®
Hotballs®



#821 Soft Shot Pucks™

Soft vinyl, seamless, air-filled pucks promote safe play. For use on all surfaces and in all temperatures.

Case Quantity: 12 or 120 Color: orange

#831 Hotballs™

These safety features don't sacrifice speed. Vinyl, one-piece seamless construction, no-bounce balls. For use on all surfaces and in all temperatures.

Case Quantity: 12 or 120 Color: orange

#832

Speed Control Balls®

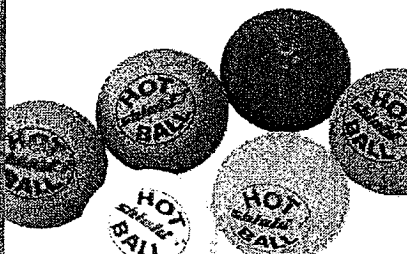


Finally, a ball that simulates the speed of a shoot hockey puck. A one-piece, ribbed, seamless, no-bounce ball perfect for use on all surfaces and temperatures. Slower than a hotball, faster than a puck.

Case Quantity: 12 or 120 Color: light orange

#830

Rainbow Hotballs®



You'll have colorful play with these vinyl, one-piece seamless construction, no-bounce balls. Great on all surfaces and of all temperatures.

Case Quantity: 6

Color: Assorted in 6 bright colors: red, orange, yellow, green, blue, and purple

Gymnasium Accessories

Protective Eyewear



#4-3 Protective Glasses

Our safe polycarbonate lenses feature an anchored nose pad and adjustable temples that do not come out. All sport strap included.

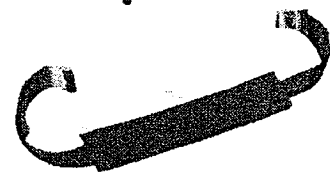
Case Quantity: 12



#7-3 Protective Goggles

These lightweight and durable goggles adjust to fit over eyeglasses with elastic band. Anti-fogging and well-ventilated for comfort.

Case Quantity: 24



#6-3 Velcro Goggles

These lightweight and durable goggles feature adjustable Velcro to keep your eye protection exactly where you want it without having to worry about interruptions to your game.

Case Quantity: 24

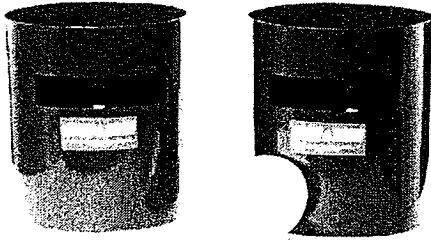
Shield Sports

www.ShieldSports.com | 1.800.828.7669

Gymnasium Accessories

#801

Kan-Jam®



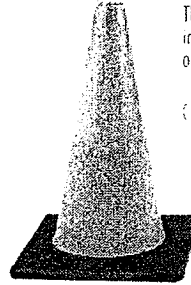
Fly into the future with this hot new team sport! It's easy for all ages and skill levels to learn and play. Teams of two compete using a flying disc and two scoring containers. This interactive sport with an instant win feature keeps players engaged through the final moments of the game. Designed for indoor and outdoor fast paced action, this new portable game is sure to be everyone's favorite.

Includes: 1 Flying Disc, 2 scoring containers and detailed rules

#806 Mike Mason Over-n-Under® Training Hurdle

The Mike Mason Over-n-Under® Training Hurdle

This physical education teacher has a great reputation for innovative products. Hurdle safely swings out of the way on contact. (Cone not included)



#802

Dr. Curt Hinson's Tag-a-Long Straps



Dr. Curt Hinson's Tag-a-Long Straps

Tag-a-Long Straps teach cooperation and group activities. They easily attach and detach, allowing teams more time to play. The lessons teach cooperation and teamwork between the users.

Case Quantity: 12 (Color and art may vary)

#803

Dr. Curt Hinson's Tag-a-Long Extenders



Dr. Curt Hinson's Tag-a-Long Extenders

Tag-a-Long Extenders allow for additional team interaction.

Case Quantity: 12 (Color and art may vary)

#807

Shield Barrier

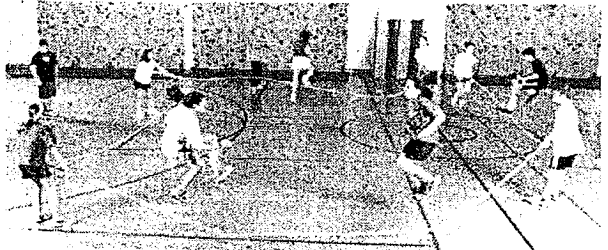


These plastic corrugated barriers can be used to separate bowling lanes, block balls and pucks from traveling under bleachers, mark obstacle courses, act as hurdles for agility games and many other activities. Each barrier is 39" long, 11" high and almost indestructible. Barriers collapse if fallen on, making them safe for all ages. Barriers interlock by tunneling into each other.

Case Quantity: 6

#809

Jammin' Jump Rope



A great cardiovascular activity that is a wonderful teaching tool for team building and cooperation. An innovative and simple activity that allows up to 12 students to be involved at once with 4 rowers and 8 jumpers.

Includes: One 77" four color rope with 4 jointed handles.

Gymnasium Accessories

12

Team Mouthguards

MG1 Single Density Mouthguards



#120

MG120 Single Density Adult Mouthguard

Provides double impression for upper and lower teeth protection. 30-second (MG120) to 35-second (MG180) custom fit. MG180 features one-piece quick release helmet strap. \$100 per tooth dental injury warranty.

Case Quantity: 100

Color: yellow, black, or clear. All one color.



#140

MG140 Single Density Youth Mouthguard

Young athletes prefer this design, ergonomically shaped for the size and contours of a youth's mouth. The flexible material is comfortable for talking and breathing, and is custom fit at below boiling temperature to protect sensitive mouths. MG160 features one-piece quick release helmet strap. \$100 per tooth dental injury warranty. 10-second custom fit.

Case Quantity: 100

Color: maroon, red, orange, yellow, green, blue, purple, black, or clear. All one color.



#1025

MG1025 Single Density Adult Mouthguard

12-second custom fit. MG1050 features one-piece quick release helmet strap. \$50 per tooth dental injury warranty.

Case Quantity: 100

Color: maroon, red, orange, yellow, green, blue, purple, black, or clear. All one color.



#180

MG180 Single Density Adult Mouthguard with Strap

#160

MG160 Single Density Youth Mouthguard with Strap

#1050

MG1050 Single Density Adult Mouthguard with Strap

#3000

Adult Double Mouthguard



Great for boxing and martial arts. Upper and lower teeth and jaw protection, extra large breathing hole. 30-second custom fit.

Case Quantity: 100
Color: clear



#88

Mouthguard Carrying Case



This handy storage case keeps Mouthguards protected and clean.

Fits all Shield Mouthguards.

Case Quantity: 12
Color: black

Shield

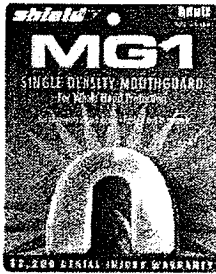
www.ShieldSports.com | 1.800.828.7669

Retail Mouthguards

MG1 Single Density Mouthguards

Available in Adult and Youth sizes, with or without strap.

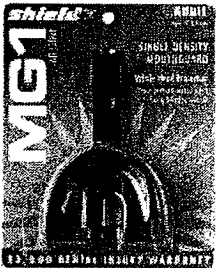
SINGLE DENSITY MOUTHGUARDS are molded with 1 layer of protective material
 Bell times are between 10-40 seconds



#125
MG1 Single Density Adult Mouthguard
 30-second custom fit for all sports.
 Ages 10 & above.
 \$3,200 dental injury warranty.
 Case Quantity: 12
 Color: yellow, black, or clear. All one color.



#145
MG1 Single Density Youth Mouthguard
 10-second custom fit for all sports.
 Ages 10 & under.
 \$3,200 dental injury warranty.
 Case Quantity: 12
 Color: black or clear. All one color.



#175
MG1 Single Density Adult Mouthguard with Strap
 35-second custom fit with one-piece quick release strap.
 Ages 10 & above.
 \$3,200 dental injury warranty.
 Case Quantity: 12
 Color: yellow, black, or clear. All one color.



#165
MG1 Single Density Youth Mouthguard with Strap
 10-second custom fit with one-piece quick release strap.
 Ages 10 & under.
 \$3,200 dental injury warranty.
 Case Quantity: 12
 Color: black or clear. All one color.



MG2 Double Density Mouthguards

Available in Adult and Youth sizes, with or without strap.

DOUBLE DENSITY MOUTHGUARDS are molded with 2 layers of protective material
 Double outer shell provides impact absorption • Soft inner layer forms snug fit while providing extra protection & comfort • Bell times between 60-80 seconds



#2002
MG2 Double Density Adult Mouthguard
 80 second custom fit for all sports.
 Ages 10 & above.
 \$10,000 dental injury warranty.
 Case Quantity: 12
 Color: pink, red, yellow, blue, black, or clear. All one color.



#2004
MG2 Double Density Youth Mouthguard
 25-second custom fit for all sports.
 Ages 10 & under.
 \$10,000 dental injury warranty.
 Case Quantity: 12
 Color: pink, red, yellow, blue, black, or clear. All one color.



#2003
MG2 Double Density Adult Mouthguard with Strap
 80-second custom fit with one-piece quick release strap.
 Ages 10 & above.
 \$10,000 dental injury warranty.
 Case Quantity: 12
 Color: pink, red, yellow, blue, black, or clear. All one color.



#2005
MG2 Double Density Youth Mouthguard with Strap
 25-second custom fit with one-piece quick release strap.
 Ages 10 & under.
 \$10,000 dental injury warranty.
 Case Quantity: 12
 Color: pink, red, yellow, blue, black, or clear. All one color.



Retail Mouthguards

MG3 Triple Density Mouthguards

TRIPLE DENSITY MOUTHGUARDS are molded with 3 layers of protective material

Our 70-second, custom fit, triple density Mouthguard features a contoured outer shell, soft inner lining and a shock absorbing spine insert. Provides maximum protection against tooth, jaw, and gum injury. 70% less expensive than our competition. Most importantly, the MG3 provides the very best protection available against concussions. Includes a \$15,000 dental injury warranty.



#2006

MG3 Triple Density Adult Mouthguard

70-second custom fit.
Ages 10 & above.
\$15,000 dental injury warranty.

Case Quantity: 12
Color: green tint



#2007

MG3 Triple Density Adult Mouthguard with Strap

70-second custom fit with one-piece quick release strap.
Ages 10 & above.
\$15,000 dental injury warranty.

Case Quantity: 12
Color: green tint



MGB Fitted Mouthguards for Braces

Our 35-second, custom fit Mouthguard features two separate materials. The upper part of the Mouthguard that touches the braces will not change shape after boiling, therefore it will not get caught under the braces' wire. The lower part of the Mouthguard is custom fitted to the bottom of the teeth after boiling. Provides outstanding protection against tooth injury, jaw injury, mouth contusions and most importantly, concussions. Includes a \$15,000 dental injury warranty.



#2008

MGB Fitted Mouthguard for Braces

35-second custom fit for all sports.
Ages 10 & above.
\$15,000 dental injury warranty.

Case Quantity: 12
Color: pink, purple, or black. All one color.



#2009

MGB Fitted Mouthguard for Braces with Strap

35-second custom fit with one-piece quick release strap.
Ages 10 & above.
\$15,000 dental injury warranty.

Case Quantity: 12
Color: pink, purple, or black. All one color.

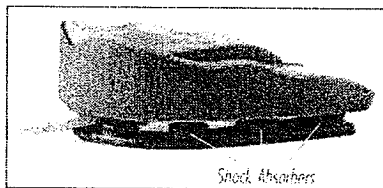


MGX Triple Density Mouthguard with Air Shocks

NEW!

This Mouthguard offers Whole Head Protection because it is Triple Density and features Air Shock Protection.

The patent pending MGX features a contoured outer shell to enhance fit, a soft inner filler that gives complete comfort and added protection, and a patented suction fit channel. Also, the air cushioned shock absorbing platform offers maximum protection against concussions. The MGX can be used with or without its included strap, which locks in after fitting.



#2010

MGX Triple Density Mouthguard with Air Shocks

Ages 10 & above.
\$20,000 dental injury warranty.

Case Quantity: 12
Color: red/yellow/black combo

MG1 Lip & Mouth Guard



#185

MG1 Lip & Mouth Guard

Worn by the pros. 35-second custom fit with added lip protection and a one-piece quick release strap.
\$3,200 dental injury warranty.

Case Quantity: 12
Color: black



All-Sport Custom-Fit Mouthguard



#250 (without strap) - #260 (with strap)

Individual bright and bold packages clearly show the unique process used to mix powder and liquid for a custom fit. Easy to use and molds perfectly to the contours of each tooth. Includes Flexo-Release strap with revolutionary "T" slot design. Fits all ages. \$100 per tooth dental injury warranty.

Case Quantity: 12
Color: ice blue



Shield

www.ShieldSports.com | 1.800.828.7669



SHIELD MFG. INC.

425 Fillmore Avenue
Tonawanda, New York 14150
Phone: 1-800-828-7669
Fax: 716-694-8692

www.ShieldSports.com

Exhibit C

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Gungfu.com

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Tel: 714-879-8882

Fax: 319-937-4457

Toll Free: 800-288-0640

Store Hours: M-F 10AM - 7PM; Sat 11AM - 6PM

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At Quest Martial Arts and Fitness Center.
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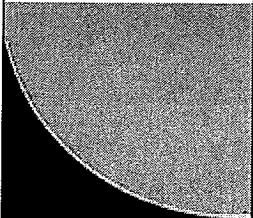
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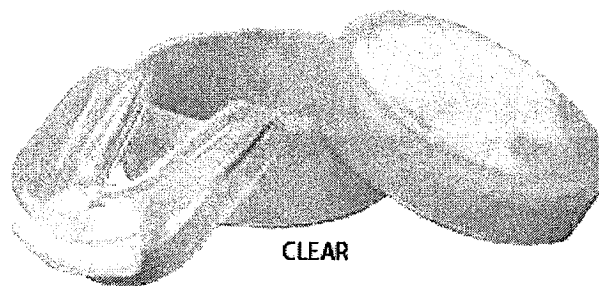
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Gungfu.com Martial Arts and Boxing Resource Center

Home » Training Gear » Protective Gear » Mouth Guards » Double Gum Shield



Double Gum Shield



CLEAR

Price: \$6.99

C4009700 - Double Gum Shield - Clear

Product Description

For effective protection of upper and lower teeth. Integral breathing hole ensures efficient regulation of breathing. Only available in clear. Recommended for adults only. Set includes mouth guard, instructions and yellow case.

Ads by Yahoo!

Stx Protective Gear and gloves

Brend new stx gloves and pads at discount
www.stickheadlacrosse.com

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- Ear Guards
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- Mouth Guards
- Punch Guards
- Wrist Protection

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- Kick Guards
- Groin Guards
- Shin/Instep/Ankle Guards
- Thigh Guards

Punching Bags

Punching Targets

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		Koshiro Tanaka teaching Fuji Ryu Taijutsu in Dallas, Feb 17-19	Will Schutt	1	3286	June 16, 2006, 07:00:46 am by white_spirit	
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Exhibit D

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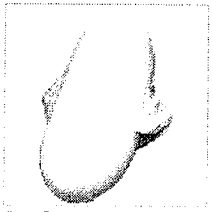
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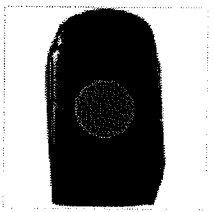
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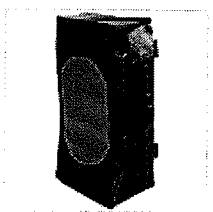
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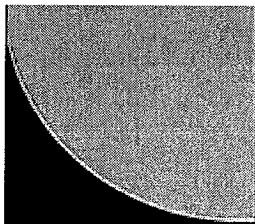
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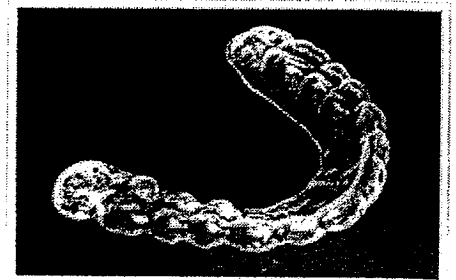


Exhibit E

Mouthguard

From Wikipedia, the free encyclopedia

A **mouthguard** (also known as a **mouth protector**, **mouth piece** or **gumshield**) is a protective device for the mouth that covers the teeth and gums to prevent and reduce injury to the teeth, arches, lips and gums. Mouthguards are most often used to prevent injury in contact sports, as a treatment for bruxism or TMD, or as part of certain dental procedures, such as tooth bleaching.



An example of a mouthguard used in the treatment of bruxism

Contents

- 1 History
- 2 Uses
 - 2.1 Sports
 - 2.2 Medical
- 3 Types of mouthguards
 - 3.1 Stock or ready made
 - 3.2 Mouth adapted or "boil and bite"
 - 3.3 Custom made
- 4 References

History

An early mouthguard was developed in 1890 by Woolf Krauze, a London dentist to protect boxers from lip cuts and lacerations. The modern mouthguard design started from the work in the 1970s done by Dr. A. W. S. Wood, a Canadian pediatric dentist who was aiming to reduce and prevent harm injuries to children's teeth in hockey games.^[1]

Uses

Sports

Mouthguards are used in sports where deliberate or accidental impacts to the face and jaw may cause harm. Such impacts may occur in many sports including: baseball, boxing, martial arts, rugby, wrestling, soccer, American football, Australian football, lacrosse, basketball, figure skating, hockey, underwater hockey, water polo, skiing and snowboarding. Mouthguards may also prevent or reduce harm levels of concussion in the event of an injury to the jaw.^{[2][3]}

Many sports, schools or local state health laws make the use of protective mouthguards compulsory for participants.

Medical

Mouthguards may be used as splints to treat temporomandibular joint disorder and bruxism. A thin

acrylic mouthguard appliance is often used during tooth bleaching.

Types of mouthguards

Stock or ready made

Manufactured in a pre-formed shape in various sizes but with nearly no adjustment to fit the user's mouth. The only adjustment possible is minor trimming with a knife or scissors.

Mouth adapted or "boil and bite"

A thermo-plastic material manufactured in a pre-formed shape in various sizes that can be adapted to fit more closely to an individual's teeth and gums by heating and molding such as boiling then placing in the mouth. These mouth guards are usually made of Ethylene-vinyl acetate[1] (<http://www.freepatentsonline.com/5339832.html>)[2] (<http://www.freepatentsonline.com/4044762.html>).

Custom made

An impression of the users teeth is used by specialist manufacturers to create a best-fit mouth protector.

References

- [^] Member of the Order of Canada for Dr Art Wood (<http://www.gg.ca/honours/search-recherche/honours-desc.asp?lang=e&TypeID=orc&id=2924>)
- [^] NZ Dental Association advice (<http://www.nzda.org.nz/pub/index.php?id=43>)
- [^] "Do mouthguards prevent concussion?" (<http://bjsm.bmj.com/cgi/content/extract/35/2/81>)

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Categories: Dental equipment | Protective gear | Rugby union equipment | American football equipment

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Exhibit F



US006802079B2

(12) **United States Patent**
Bush

(10) **Patent No.:** **US 6,802,079 B2**
(45) **Date of Patent:** **Oct. 12, 2004**

(54) **PROTECTIVE MOUTH SHIELD**

(76) Inventor: **David Bush**, 264 Beatree La., Aston, PA (US) 19014

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/424,901**

(22) Filed: **Apr. 28, 2003**

(65) **Prior Publication Data**

US 2004/0006804 A1 Jan. 15, 2004

Related U.S. Application Data

- (63) Continuation of application No. 10/120,126, filed on Apr. 10, 2002, now Pat. No. 6,553,569.
- (60) Provisional application No. 60/206,453, filed on May 22, 2000.
- (51) **Int. Cl.**⁷ **A41D 13/00**
- (52) **U.S. Cl.** **2/9; 128/857**
- (58) **Field of Search** **2/9, 174, 424, 2/427, 206, 425, 452; 128/857, 859, 848, 861, 206.12, 206.15, 206.17, 206.27, 206.21, 206.29, 207.11, 707.14; 602/17, 74**

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,216,679 A	*	2/1917	Foster	.....	602/902
1,296,946 A	*	3/1919	Galiardo	.....	128/204.11
5,335,371 A		8/1994	Spessard		
5,717,993 A	*	2/1998	Roberts	.....	2/9
5,911,308 A		6/1999	Chafitz et al.		
6,148,820 A	*	11/2000	Herrin	.....	128/857
6,553,569 B2	*	4/2003	Bush	.....	2/9

* cited by examiner

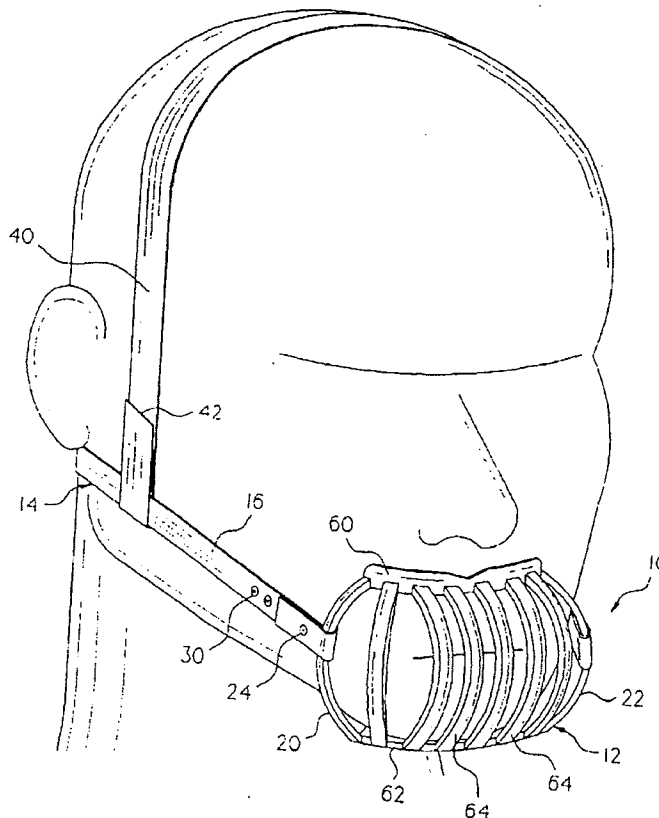
Primary Examiner—Tejash Patel

(74) *Attorney, Agent, or Firm*—Eugene E. Renz, Jr.

(57) **ABSTRACT**

A mouth protector assembly comprising a grid-like mouth protector, defined by a top bar contoured to engage the area above the upper lip and below the nose of a user, a series of spaced bars depending from the upper bar and a pad which underlies the chin of a user, a strap system for supporting the grid over the mouth including straps connected to the grid and encircling the head to support the grid over the mouth of the user.

6 Claims, 9 Drawing Sheets



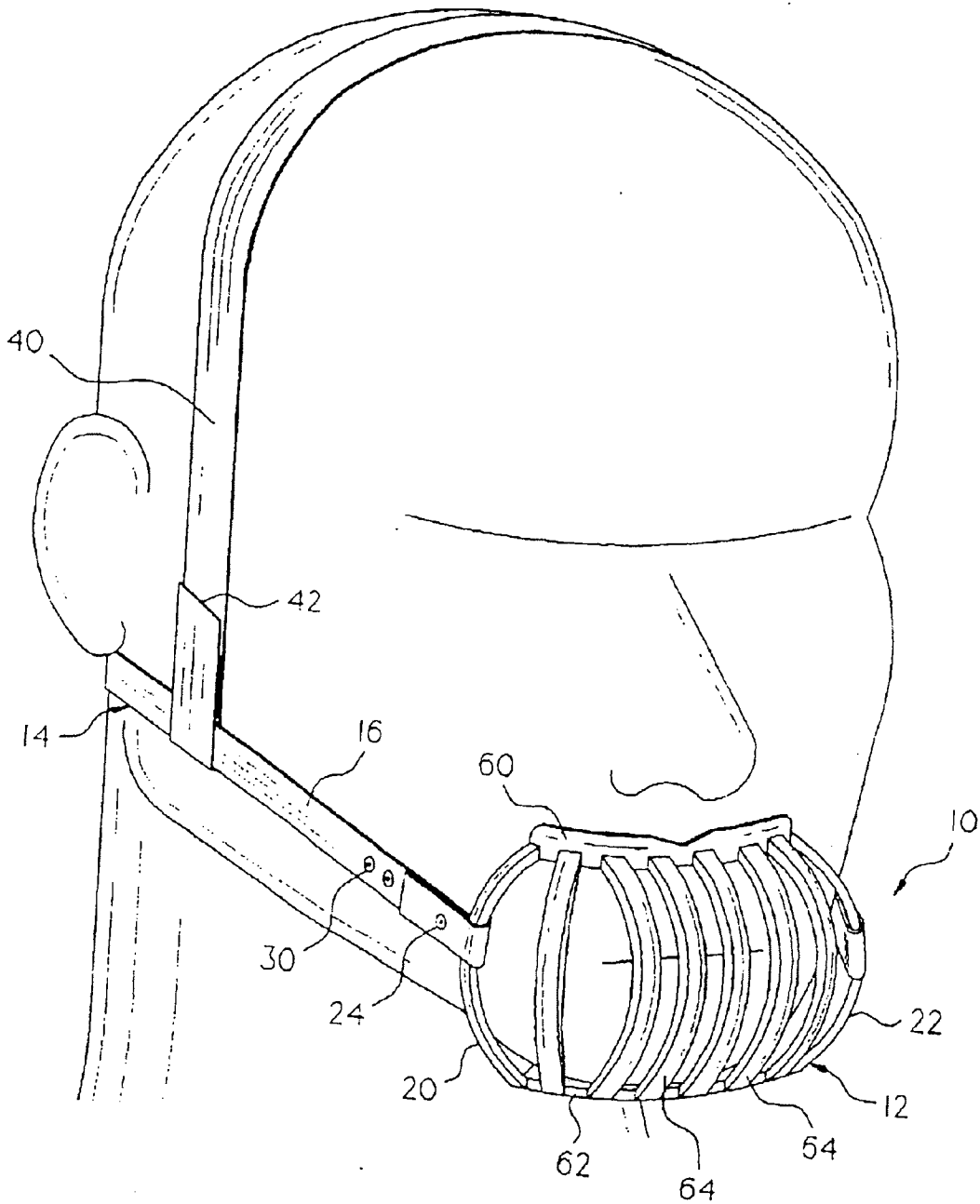


Fig-1

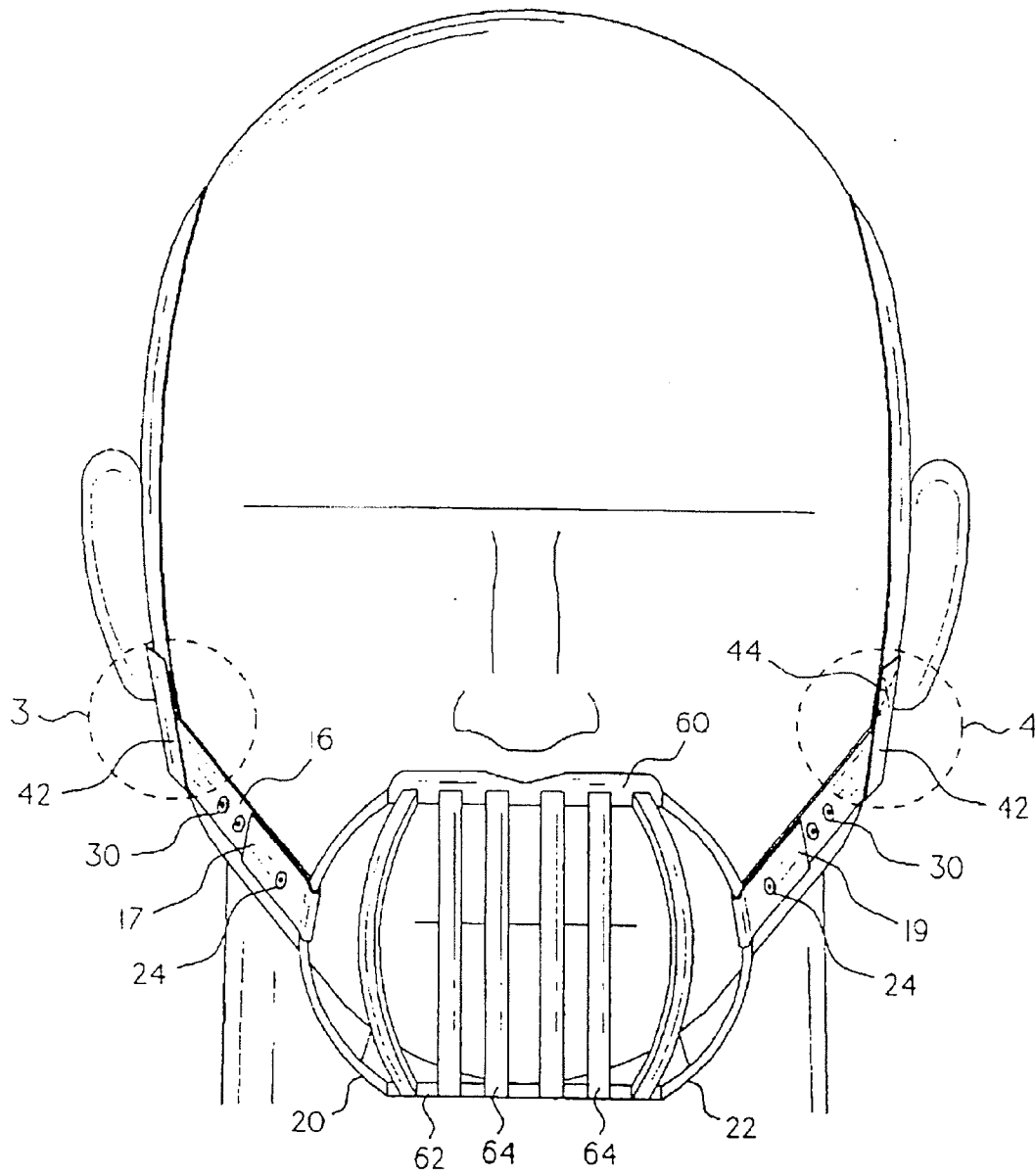


Fig-2

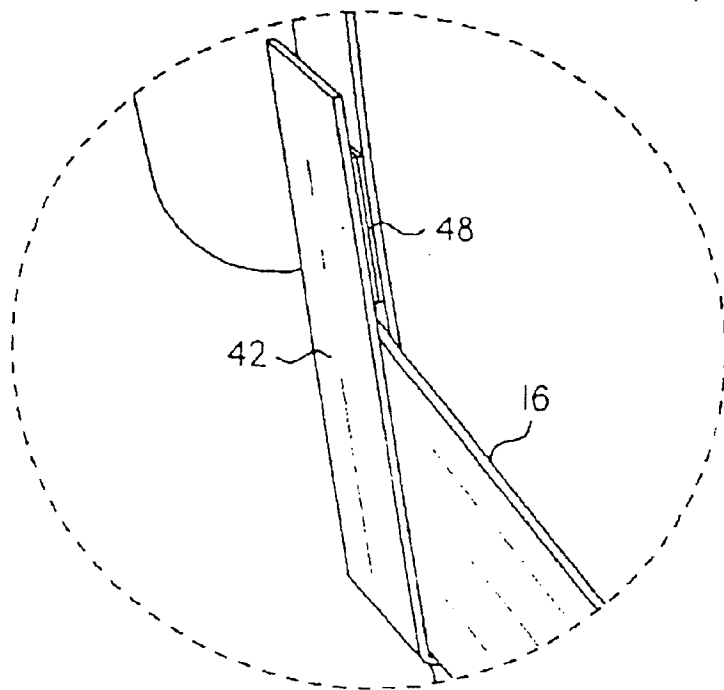


Fig-3

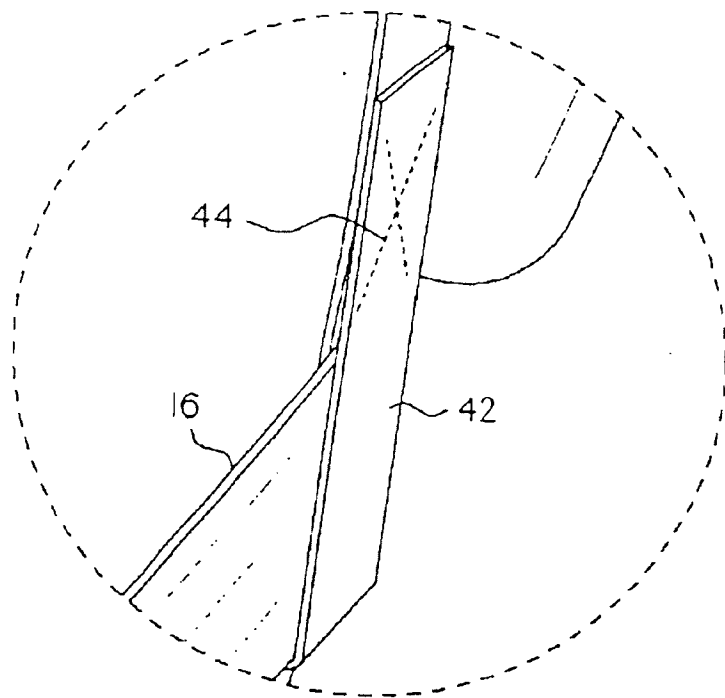


Fig-4

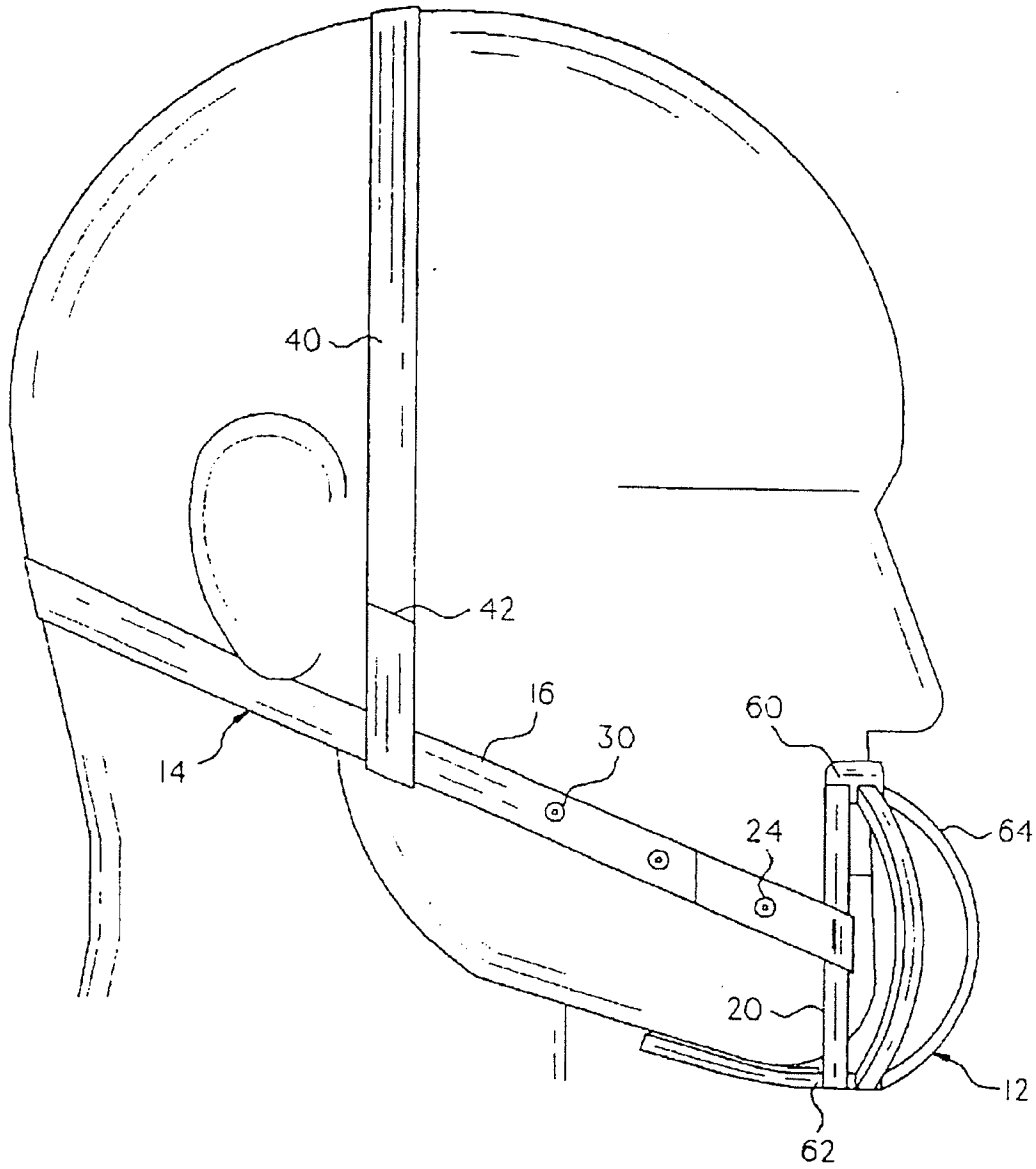


Fig-5

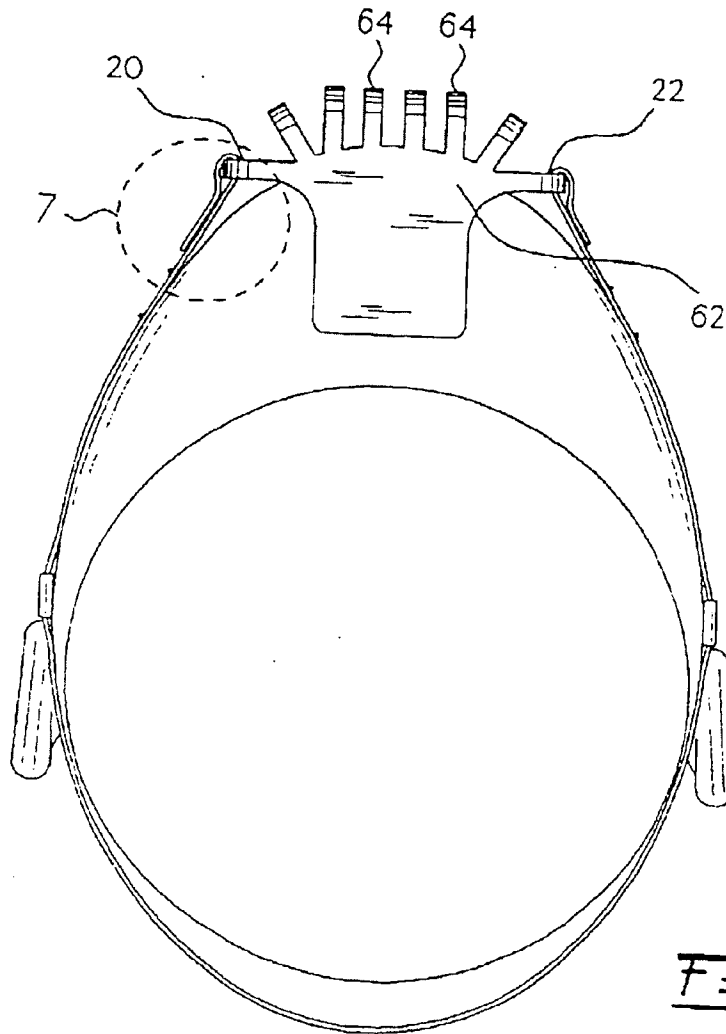


Fig-6

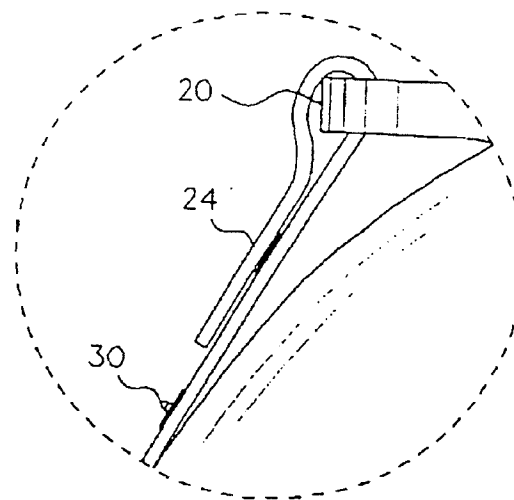


Fig-7

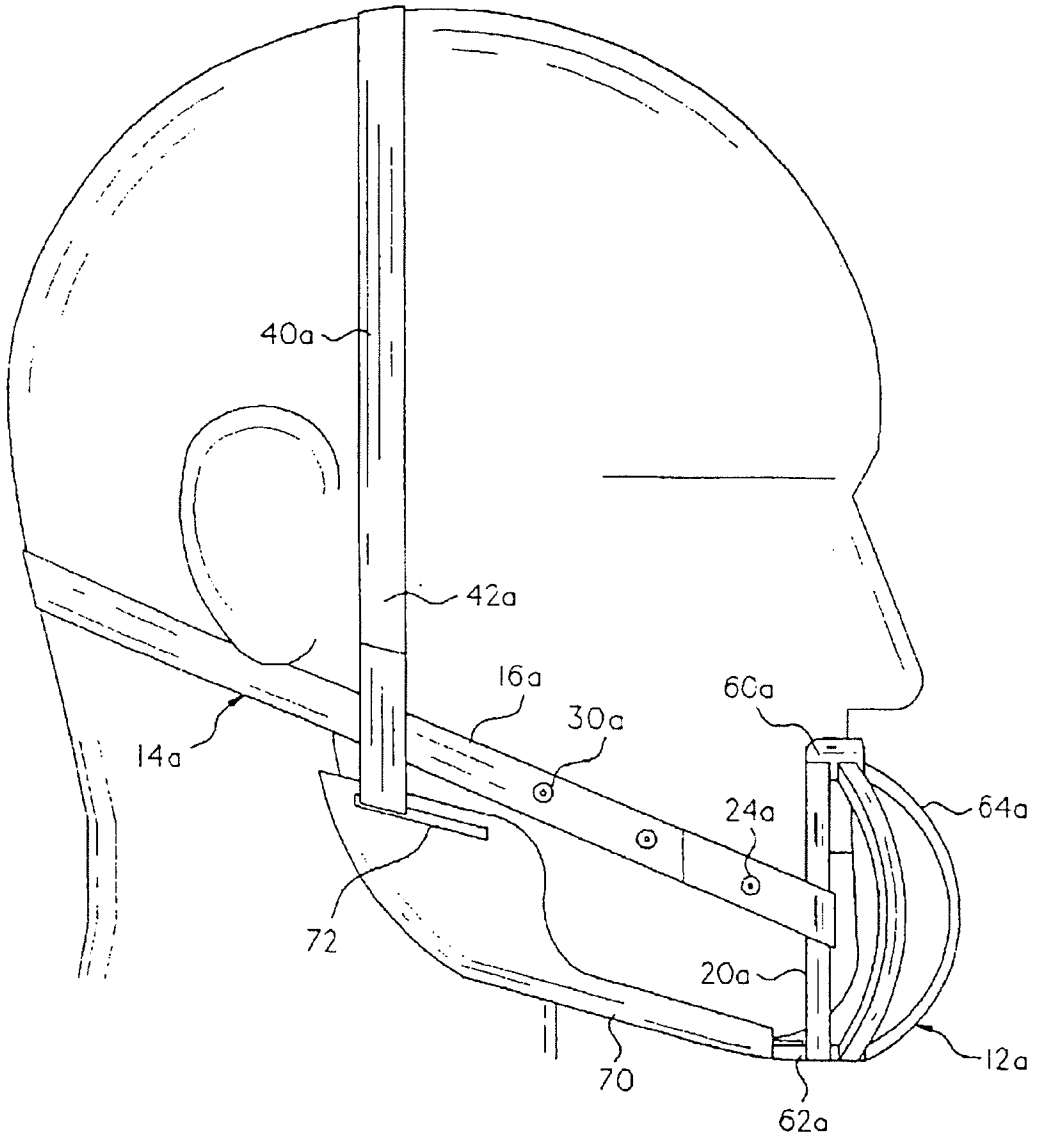
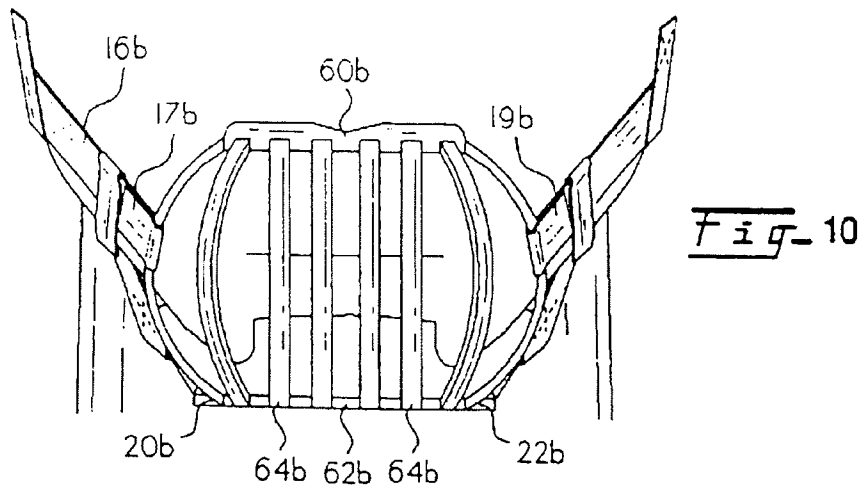
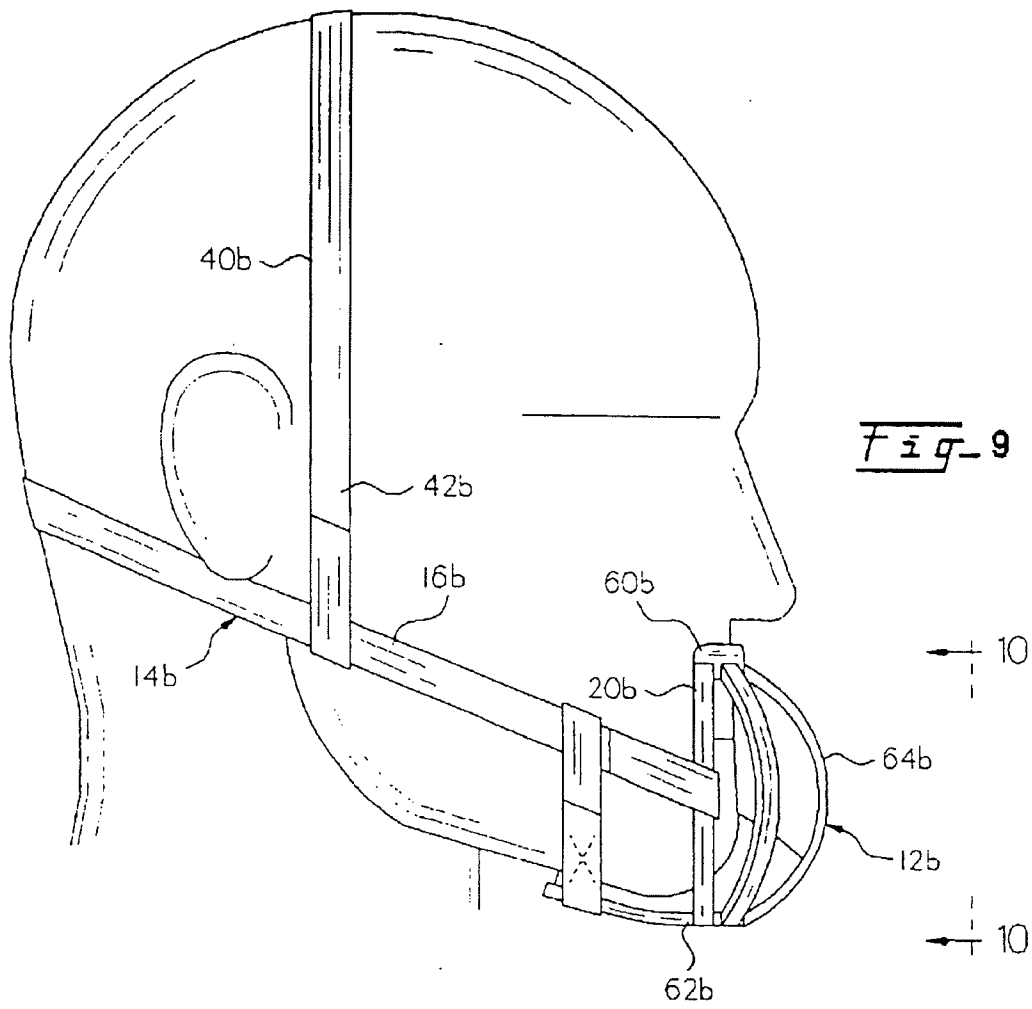


Fig-8



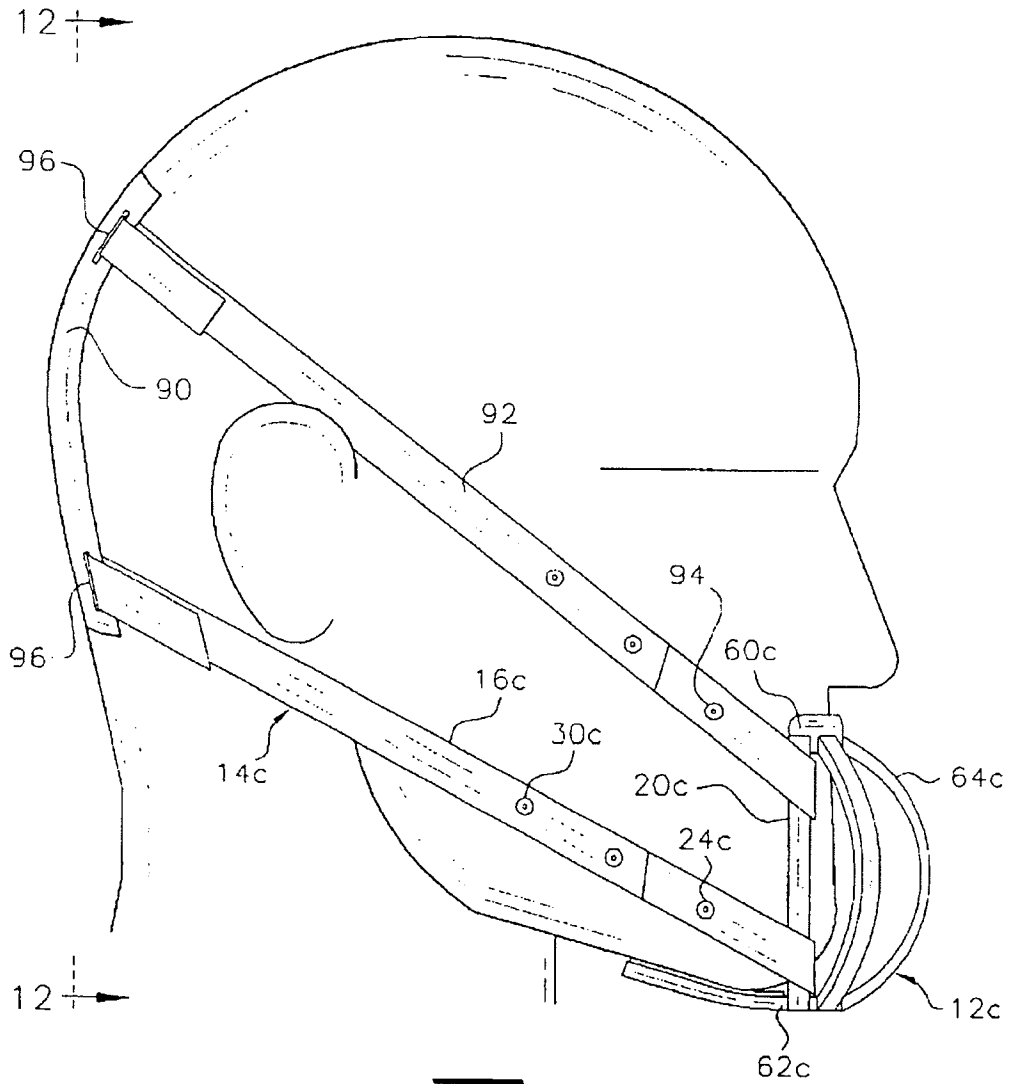


Fig-11

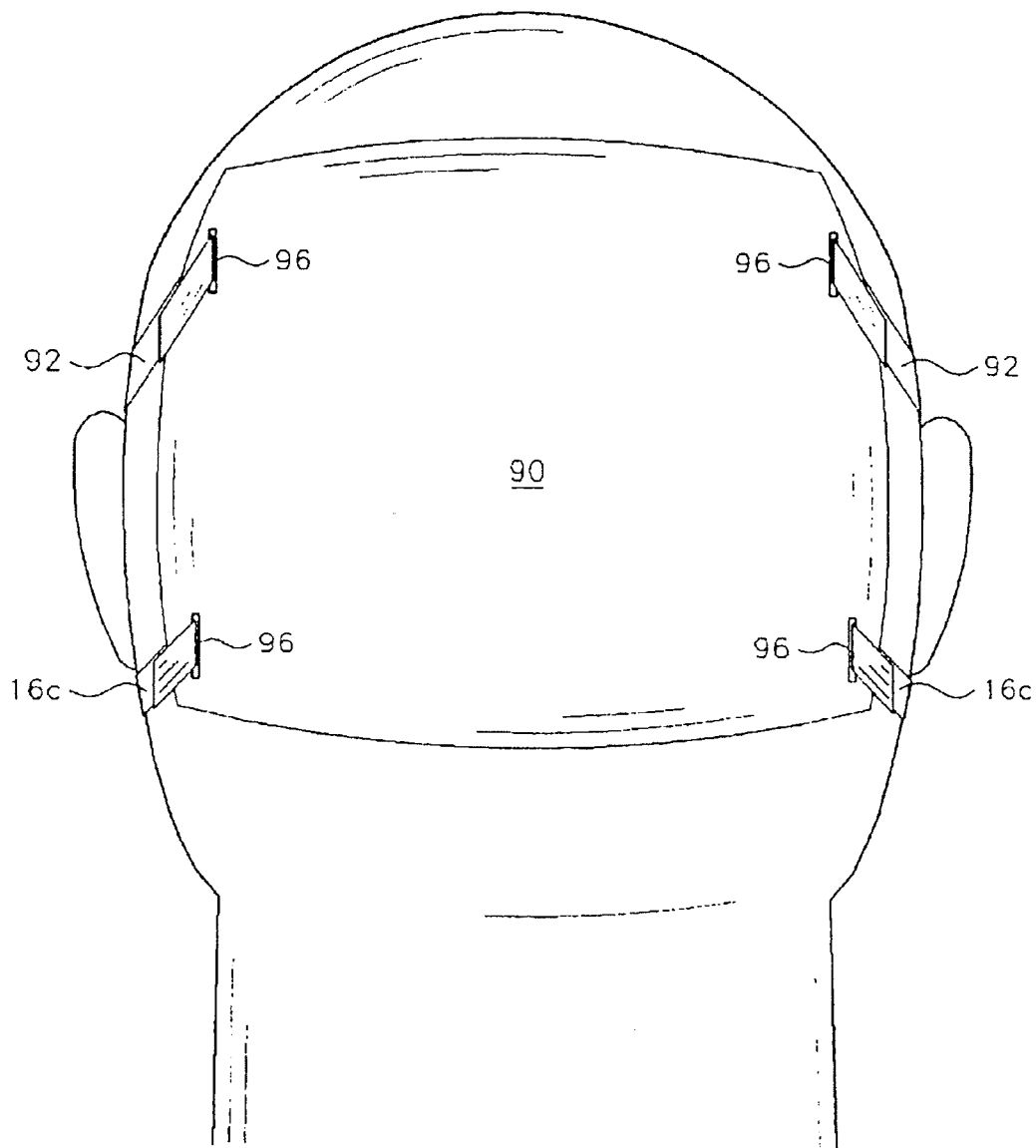


Fig-12

1

PROTECTIVE MOUTH SHIELD

This is a continuation of Parent Application, Ser. No.: 10/120,126, entitled, PROTECTIVE MOUTH SHIELD filed Apr. 10, 2002, now U.S. Pat. No. 6,553,569.

This Continuation Application claims priority from Provisional Patent Application No.: 60/206,453, filed May 22, 2000.

FIELD OF THE INVENTION

The present invention represents a significant innovation in the area of sports safety, as relates to so-called "protective mouth shields".

BACKGROUND OF INVENTION

Presently, the use of mouth guards placed in the mouth, i.e., intra-oral mouth guards to protect against concussion is quite common in athletics. These mouth guards are typically made of a plastic or rubber material and are of general "U"-shape cross-section to fit over the teeth of the user.

While these guards certainly serve a useful function, they are not designed to shield the mount and teeth from impact, but rather are intended to prevent concussion. Within the universe of all athletes susceptible to injury to the teeth, a hazard exists, peculiar to the sub-group of athletes who wear braces. Impact injuries to the mouth of a brace wearer, which intra-oral mouth guards cannot prevent can range from internal lacerations of the cheeks, lips and gums, to painful trapping of the lips or cheek in the brace. Additionally, damage to the braces themselves, from impact with other players, balls, etc. commonly occur, necessitating costly repairs.

Currently, extra-oral protection for the teeth and mouth is limited to those sports in which the players are permitted to wear helmets, such as ice hockey and football. Wire mesh "face cages" in hockey and face masks in football require a helmet to which they are attached.

The present invention is unique in that it provides protection from injury to brace and no-brace wearing athletes in sports in which helmets are not used, either by custom, such as basketball, or by the inherent nature of the game such as soccer. In the case of soccer, use of the head to direct the ball is an integral part of the game, and helmets cannot be worn as to do so would significantly alter the character of the sport. As such, no means of extra-oral protection from potentially catastrophic injury to the teeth with the attendant pain and treatment costs, currently exists for the millions of soccer or basketball players.

The invention comprises a strap system, enabling independent wear, for supporting a grid-like plastic protector which overlies the mouth of the user and by protruding outward truly protects the teeth and mouth of the user, including those wearing braces. The invention prevents impact to the mouth. The unique character of the invention is its suitability for non-helmet sports. The strap system is designed to facilitate easy and quick positioning of the mouth protector in place and easy adjustment for comfort and stability.

The invention can of course be utilized in conjunction with an intra-oral mouth guard. If used alone, however, in addition to its superior ability to prevent injury to the teeth and mouth, the invention, unlike an intra-oral guard, does not impede verbal communication by the user, a significant consideration in team sports.

The efficacy of the invention is particularly acute in light of the tremendous expansion in recent years of organized

2

sports programs, particularly soccer, among both genders. As part of that expansion, participation begins at earlier ages and children as young as four years of age, who now regularly engage in team sports. The invention is particularly-attractive to the parents of such young children.

BRIEF DESCRIPTION OF THE DRAWINGS

These and other objects of the present invention and the various features and details of the operation and construction thereof are hereinafter more fully set forth with reference to the accompanying drawings.

FIG. 1 is perspective view of my invention for protective mouth guard;

FIG. 2 is a front elevational view showing the mouth guard in place on the head of the user;

FIG. 3 is an enlarged fragmentary perspective view of the strap configuration at one side of the protective mouth guard cage, shown in broken lines in FIG. 2 and identified as numeral "3";

FIG. 4 is an enlarged perspective view showing the strap configuration at the opposite side;

FIG. 5 is a side elevational view of the mouth guard protective assembly;

FIG. 6 is a bottom plan view of the present invention;

FIG. 7 an enlarged view showing the connection of the strap to the protector cage circled in broken lines in FIG. 6 and identified by the numeral "7";

FIG. 8 is a side elevational view of a modified protector assembly in accordance with the present invention;

FIG. 9 is a side elevational view of another embodiment of a mouth guard assembly in accordance with the present invention;

FIG. 10 is a fragmentary front plan view showing the modified chin support portion of the assembly;

FIG. 11 is a side elevational view of another embodiment of mouth guard protective assembly in accordance with the present invention; and

FIG. 12 is a rear elevational view showing the support structure for holding the mouth guard in place.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings and particularly to FIGS. 1 and 2, thereof, there is shown a mouth protector assembly in place on the head of the user made in accordance with the present invention and generally designated by the numeral 10. The assembly comprises essentially a grid-like mouth protector 12 and a strap-like head support system designated by the numeral 14 for supporting the mouth protector 12 in place over the mouth of a user in the manner shown. The strap system 14 may be made of a suitable fabric having a degree of elasticity and comprises a first lower support strap 16 which as illustrated in FIGS. 1 and 2 is connected to the outer bars 20, 22 of the grid-like mouth guard 12 and encircles the neck of the user below the ear in the manner shown in the drawings. The terminal ends 17 and 19 of the strap 16 loop around the outer bars 20, 22 of the mouth guard and are secured by snap fasteners 24 or velcro. The snap fasteners 24 are of the conventional type having male and female elements 26 and 28, respectively. The strap has a series of spaced fastening elements 30 to allow for adjustment of the strap 16 and ensure a snug fit.

The strap system 14 as illustrated also includes a so-called upper support strap 40 which in the present instance is

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looped over terminal ends as at 42 to connect it to the lower support strap 16 with a sliding fit. One of the end loops 42 is permanently secured by stitching or the like at 44 and the other end loop 42 is folded over on itself and detachably connected by Velcro® or the like as at 48. This arrangement permits sliding adjusting movement of the upper strap 40 to a comfortable position on the top of the head. The mouth protector element 12 comprises, as best shown in FIGS. 1 and 2, a generally rectangular frame comprising a top bar 60 which is contoured to press comfortably against the face of the user below the nose and above the lip in the manner shown in FIGS. 1 and 2 and a base pad 61 underlying the chin as shown in FIG. 5. There are a series of outwardly bowed ribs 64 spanning the upper bar 60 and front edge 62 of pad 61, including two outer ribs 20 and 22 to which the lower strap 16 is attached. This arrangement provides a comfortable and protective shield for the mouth and teeth of the user.

There is shown in FIG. 8 another embodiment of the mouth protector assembly in accordance with the present invention where some of the element or components of the assembly are the same as in the principal embodiment and are therefore assigned the same references numbers with subscript "a". Thus, the protector assembly includes a lower strap 16a, a grid-like mouth protector 12a for the mouth and teeth area of the user and an upper strap which spans the head of the user in the same manner as in the principal embodiment. However, in the present instance, the assembly includes a contoured lower jaw piece 70 made of a plastic material and the upper strap 40a is connected thereto in the manner shown by engaging through a slotted opening 72 in the jaw piece 70. The jaw piece 70 are formed integrally with the base pad 61.

There is shown in FIG. 9 another embodiment of mouth protector assembly in accordance with the present invention, wherein some of the elements or components of the assembly are the same as the principal embodiment and therefore are assigned the same reference numbers with a subscript "b". Thus, the protector assembly includes a lower strap 16b, a grid-like mouth protector 12b for the mouth and teeth area of the user and an upper strap 40b which spans the head of the user in the same manner as in the main embodiment. However, in the present instance, the mouth protector 12 has a base extension 80 projecting rearwardly from the bottom bar 62b and a chin support cushion 82 is provided which is contoured to the chin of the user and is supported in the base by suitable adhesive. An auxiliary or connector strap 84 is provided on either side of the mouth protector which spans the lower strap 60b and is suitably connected to the base pad 80.

FIGS. 11 and 12 illustrate another embodiment of mouth protector assembly in accordance with the present invention wherein elements of the assembly which are the same as the principal embodiment are assigned the same reference numeral with the subscript "C" and new elements are given a new reference number.

Accordingly the mouth protector assembly includes a grid-like mouth protector 12c is supported in place to protect

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the mouth and teeth area of a user by a strap system connected between the protector 12c and a pad 90 which conforms to and seats on the back portion of the head of the user above the neck. The pad 90 is made of a soft, pliable elastic material such as cloth. The pad 90 may be fortified to provide a measure of protection to the head. The support strap system comprises upper and lower straps 92 and 16c which connect at their inner ends to the outer bars 20c and 22c, and at their outer ends to the upper and lower corners of the pad 90. The looped ends of the straps on one side of the pad 90 may be permanently attached as by sewing or the line and the looped ends at the opposite side of the pad 90 may be removably secured by velcro or the like to provide for adjustment and a snug fit. As illustrated, the straps loop around the bars 20c and 22c and are secured by snap fasteners as at 24c and 94. There are a series of fasteners to permit adjustment of the straps to a comfortable snug position. The outer ends loop through openings 96 at the corners of the pad 90 so that the straps on both sides straddle the ear in the manner shown for comfort.

Even though particular embodiments of the present invention have been illustrated and described herein, changes and modification may be made therein within the scope of the following claims.

What is claimed is:

1. A mouth protector assembly comprising a grid-like mouth protector, defined by a top bar contoured to engage the area above the upper lip and below the nose of a user, a series of spaced bars depending from the upper bar and a pad which underlies the chin of a user, a strap system for supporting the grid over the mouth including at least one strap connected to the grid and connected to opposite ends of the grid.

2. A mouth protector assembly as claimed in claim 1 including a contoured lower jaw piece and wherein the straps comprise a lower strap and an upper strap, said upper strap adapted to be connected to said jaw piece by engaging it through a slotted opening in the jaw piece.

3. A mouth protector assembly as claimed in claim 1, including a base extension (80) projecting rearwardly from the bottom bar (62b) and a chin support cushion (82) contoured to the chin and supported in the base and an auxiliary connector strap (84) disposed on either side of the mouth protector assembly which spans the lower strap (60b) and is connected to the base pad (80).

4. A mouth protector assembly as claimed in claim 1 wherein said upper and lower bar straps (92, 16c) connect at their inner ends to the outer bars (20c, 22c) and to of the pad (90) to the upper and lower corners.

5. A mouth protector assembly as claimed in claim 4 wherein the looped ends of the straps on one side of the pad (90) are permanently attached to the looped ends of the opposite of the pad to provide for adjustment and a snug fit.

6. A mouth protector assembly as claimed in claim 5 wherein the straps are secured by snap fasteners and wherein the outer ends loop through openings (96) at the corners of pad (90).

* * * * *

Exhibit G



US005938435A

United States Patent [19]

[11] Patent Number: **5,938,435**

Raspino, Jr.

[45] Date of Patent: **Aug. 17, 1999**

[54] **ORTHODONTIC APPLIANCE SHIELD SYSTEM**

[76] Inventor: **Jude G. Raspino, Jr.**, 3 Acadia St., Kenner, La. 70065

[21] Appl. No.: **08/898,210**

[22] Filed: **Jul. 22, 1997**

[51] Int. Cl.⁶ **A61C 3/00**

[52] U.S. Cl. **433/2; 433/22**

[58] Field of Search **433/2, 8, 9, 11, 433/15, 22, 71**

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,183,624	12/1939	Schwartz	433/71
3,064,354	11/1962	Pos	433/71
3,372,484	3/1968	Mumaw	433/2
3,604,116	9/1971	Shpuntoff	433/71
4,512,740	4/1985	Kurz	433/8
4,527,975	7/1985	Ghafari et al.	
4,559,013	12/1985	Amstutz	
4,609,348	9/1986	Rowland	
4,657,508	4/1987	Dellinger	433/9
4,913,654	4/1990	Moraon et al.	
4,978,391	12/1990	Jones	433/8
5,037,296	8/1991	Karwoski	
5,160,260	11/1992	Chang	
5,299,936	4/1994	Ueno	433/71
5,324,348	6/1994	Perret	
5,662,471	9/1997	Fogerty	433/2
5,707,235	1/1998	Knutson	433/213

FOREIGN PATENT DOCUMENTS

4103991	8/1992	Germany	433/48
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OTHER PUBLICATIONS

John O. Butler Co., Chicago, IL., Butler GUM brand Orthodontic Wax, Mint Flavor Package. No Date.

Johnson & Johnson Consumer Products, Inc., Skillman NJ, FIRST AID brand sterile gauze pad package and pad No Date.

Imfalab, Inc., Brace Relief Leaflet No Date.

Primary Examiner—Ralph A. Lewis

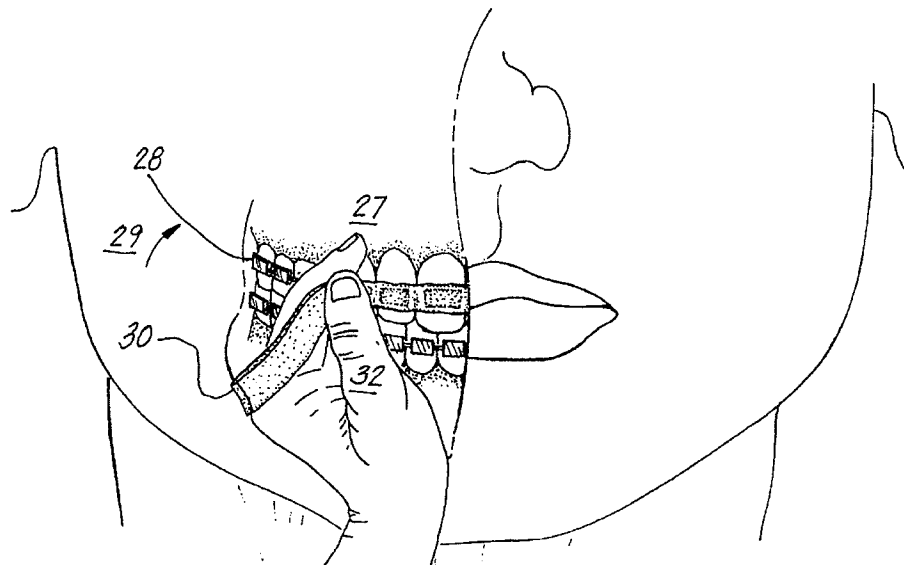
Attorney, Agent, or Firm—Joseph T. Regard, Ltd

[57]

ABSTRACT

A mouth shield system configured to protect the lips and tongue of a user from an installed orthodontic appliance, dental work, or the like. The preferred embodiment of the present invention comprises a strip formed from a light material such as, for example, mesh gauze, impregnated and surrounded by a plastic material such as, for example, dental wax or the like, the strip laminated on one outer side with a cover of, for example, cling wrap or the like. The strip is of an adequate width to envelope the raised portion of a dental appliance or other dental work, and of sufficient length preferably to cover the length of the appliance or dental work. In use, the user cuts the strip to the desired length so as to envelop the bracket and/or wire of the appliance, applying pressure to the strip and manipulating same so that it wraps about the exterior of the brackets, so as to allow the malleable properties of the strip to engage the brackets and retain the strip to same. The bracket and wires are then shielded from the inner lips of the user, and the user may enjoy foods and beverages as normal. The may be removed after eating for cleaning or brushing of the teeth, and replaced with a new strip when shielding is again desired. An alternative embodiment of the present invention contemplates the wax of the invention being infused with a breath freshener, fluoride, teeth whitener or medication, such as a topical anesthetic to relieve pain, an anticoagulant to prevent bleeding, or an antibiotic to prevent infection.

16 Claims, 5 Drawing Sheets



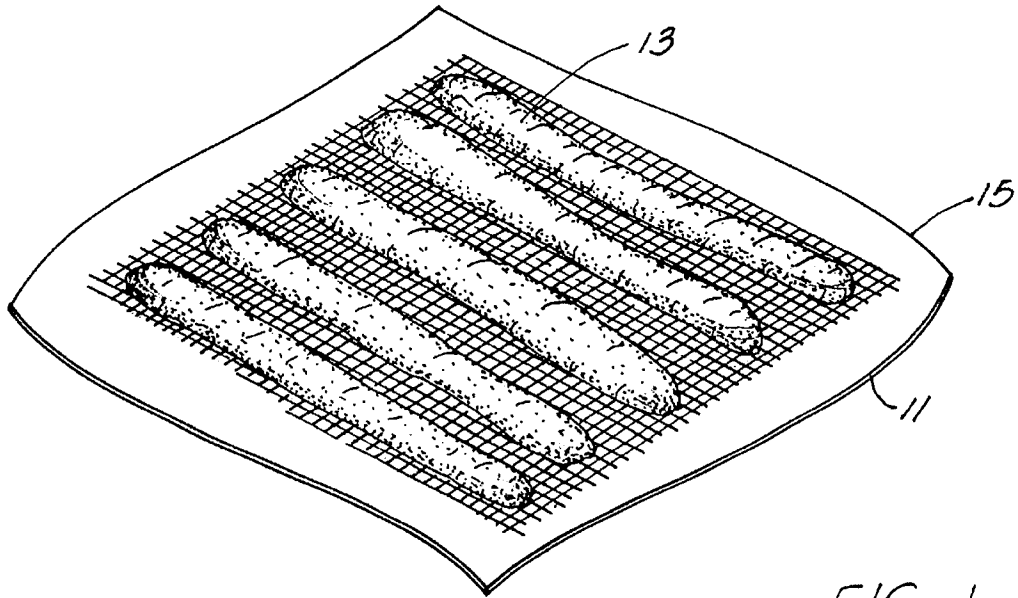


FIG. 1

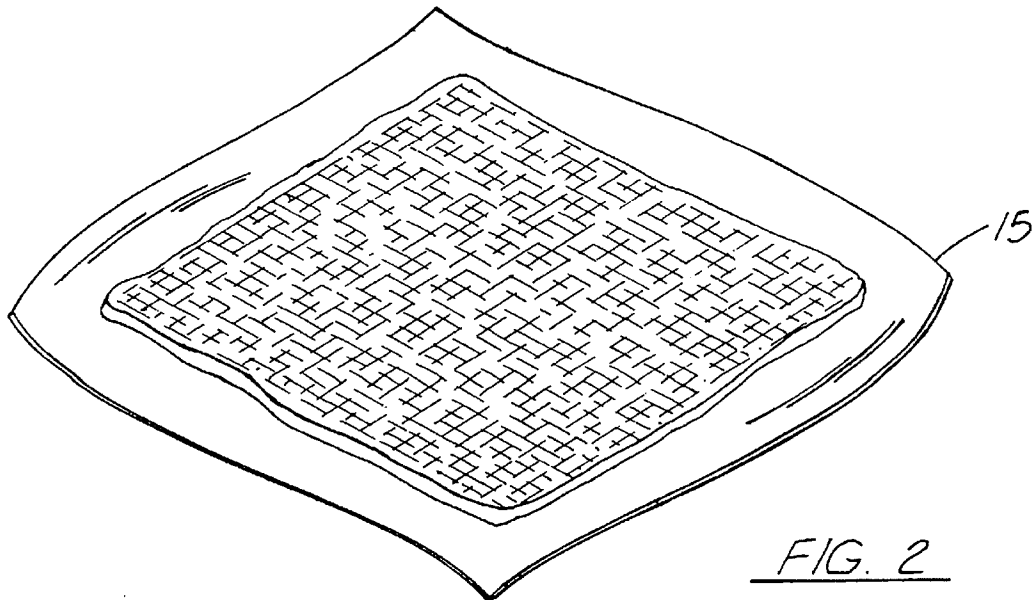


FIG. 2

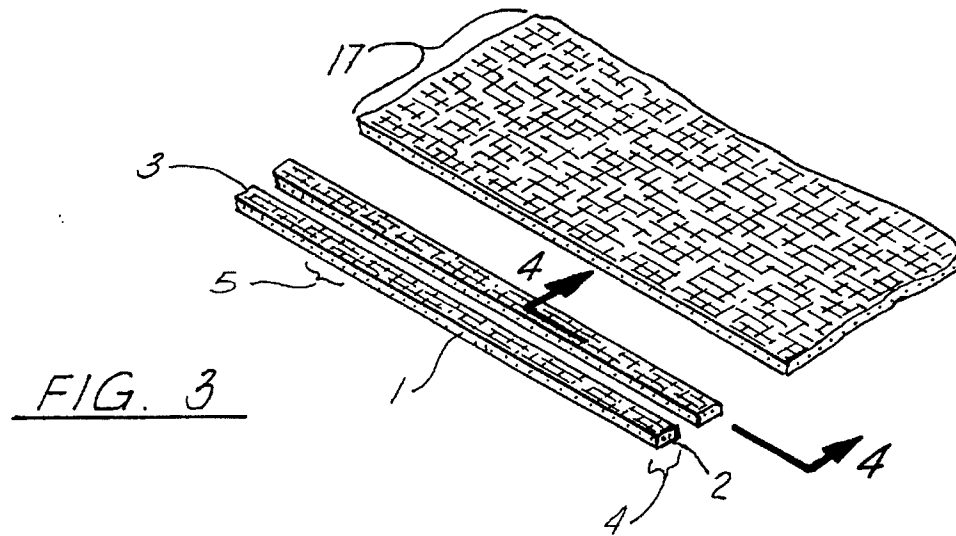


FIG. 3

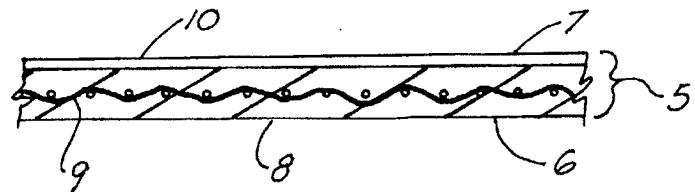


FIG. 4

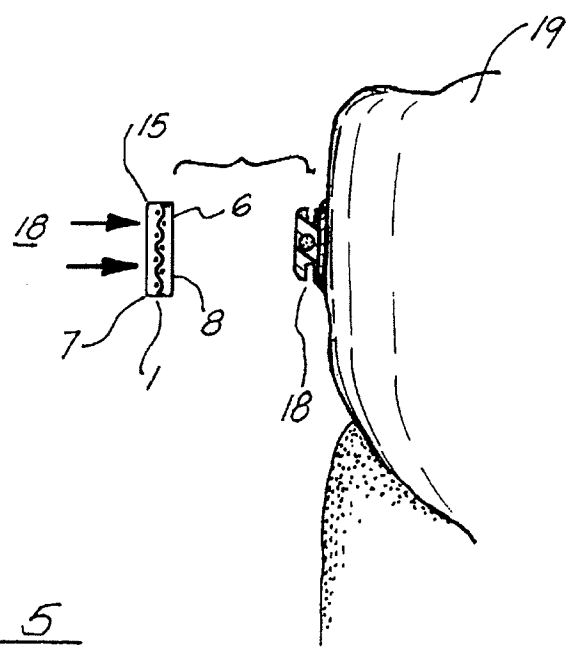


FIG. 5

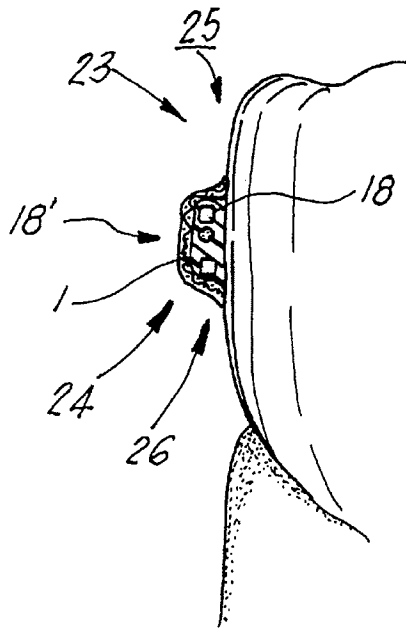


FIG. 6

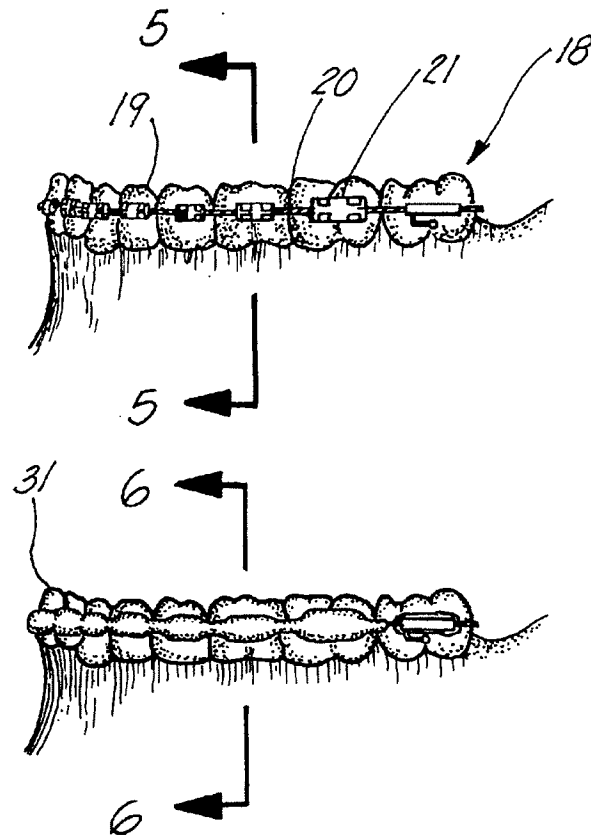


FIG. 7

FIG. 8

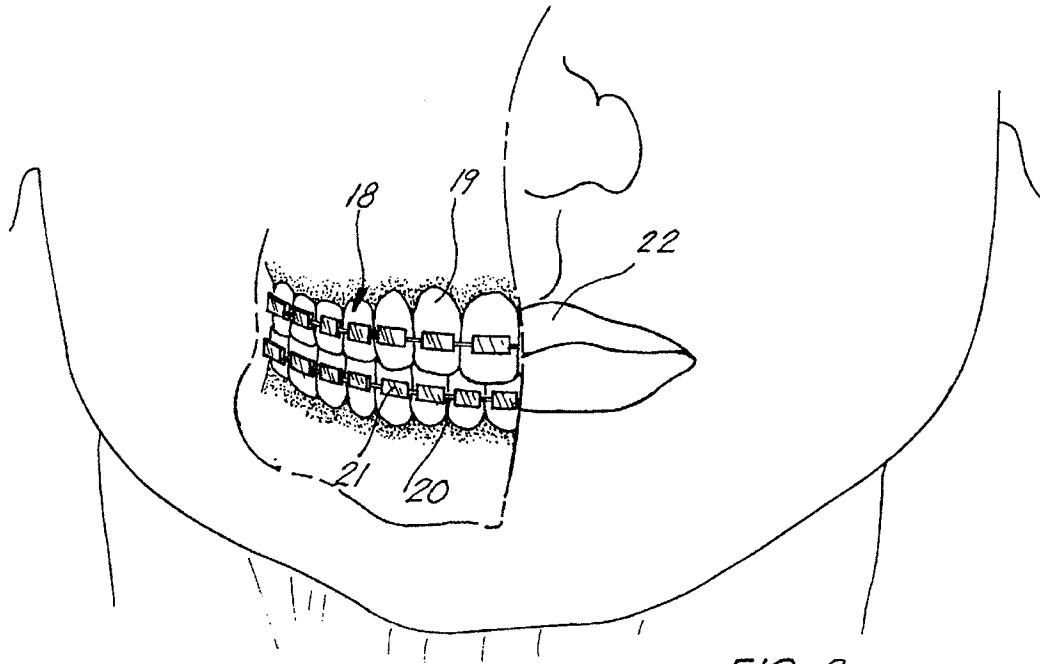


FIG. 9

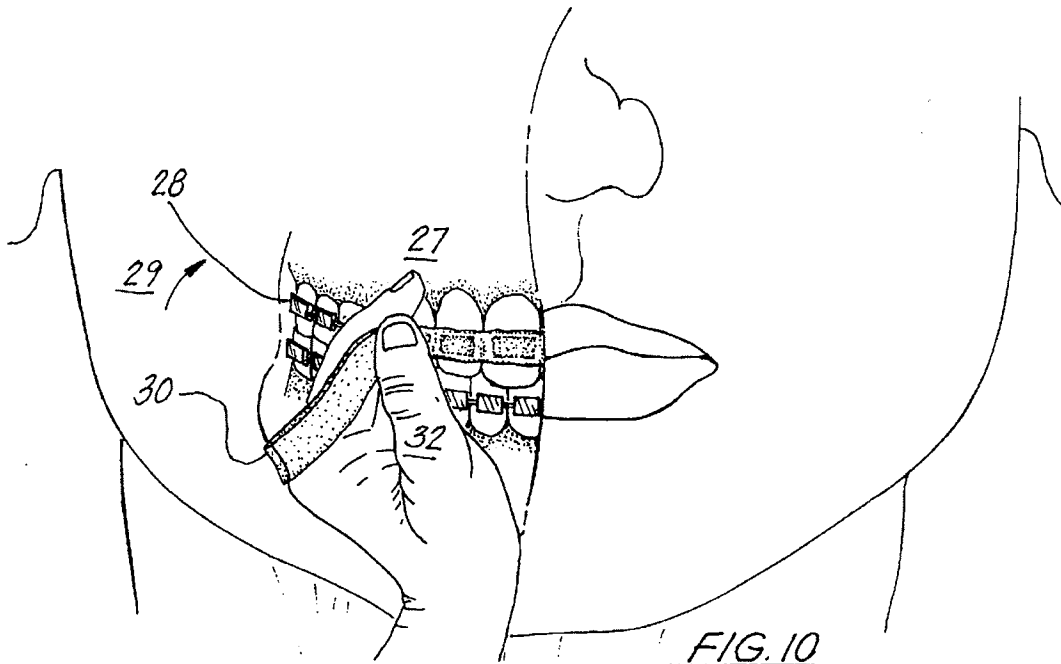
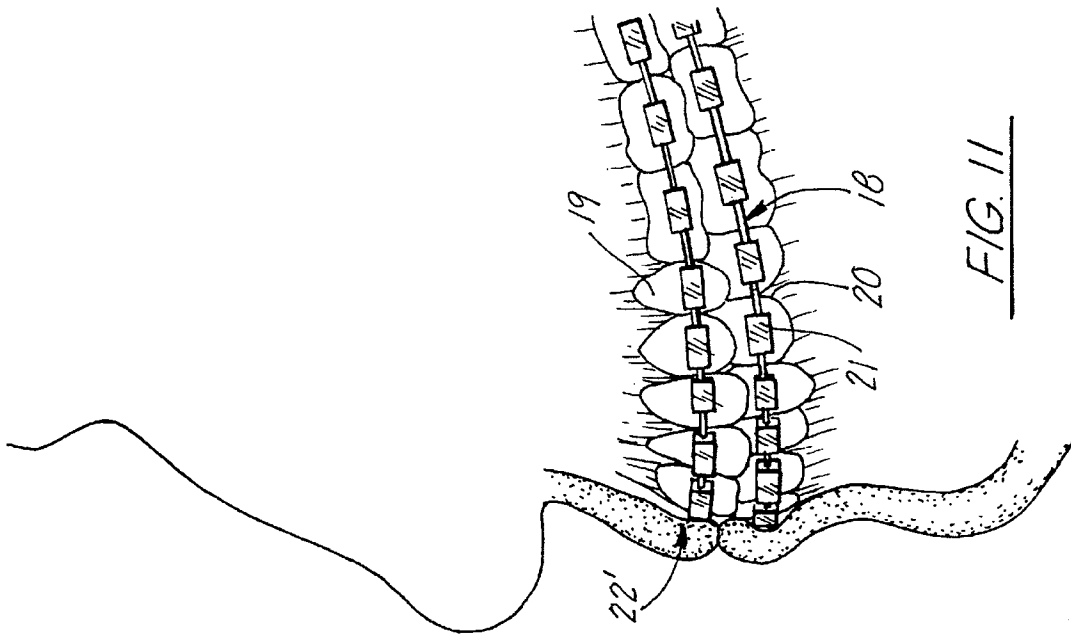
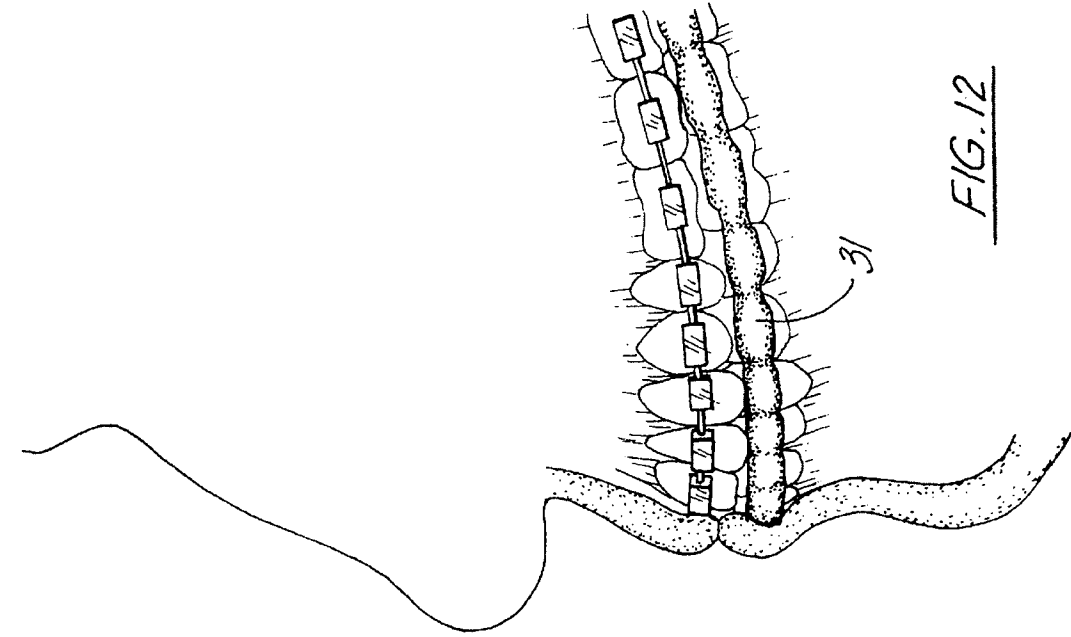


FIG. 10



ORTHODONTIC APPLIANCE SHIELD SYSTEM

TECHNICAL FIELD OF THE INVENTION

The present invention relates to mouth guards, shields and the like, and particularly to a mouth shield system configured to protect the lips and tongue of a user from an installed orthodontic appliance, dental work, or the like. A further example of the present invention contemplates a shield which is affixed to an orthodontic appliance between the teeth and the lips, the shield configured to protect the inner lips and tongue of the user from orthodontic wires and brackets.

The preferred embodiment of the present invention comprises a strip formed from a light material such as, for example, mesh gauze, impregnated and surrounded by a plastic material such as, for example, dental wax or the like, the strip laminated on one outer side with a cover of, for example, cling wrap or the like.

The strip is of an adequate width to envelope the raised portion of a dental appliance or other dental work, and of sufficient length preferably to cover the length of the appliance or dental work. The laminate strip is ideally of sufficient thickness to allow the strip to bend about the dental work, while shielding and covering same.

In use, the user cuts the strip to the desired length so as to envelop the bracket and/or wire of the appliance, applying pressure to the strip and manipulating same so that it wraps about the exterior of the brackets, so as to allow the pliable or malleable properties of the strip to engage the brackets and retain the strip to same. The bracket and wires are then shielded from the inner lips of the user, and the user may enjoy foods and beverages as normal. The strip is easily removed after eating for brushing the teeth, and replaced with a new strip when shielding is again desired. The strip may be removed for sleeping, if desired, although it is believed that the strip will remain intact during sleeping with most orthodontic appliances.

An alternative embodiment of the present invention contemplates the wax of the invention being infused with a breath freshener, fluoride, teeth whitener or medication, such as a topical anesthetic to relieve pain, an anticoagulant to prevent bleeding, or an antibiotic to prevent infection.

BACKGROUND OF THE INVENTION

Although the field of orthodontics has evolved considerably in recent years, an undesirable factor which continues to afflict its users is the pain and discomfort of wearing such a device, which affliction is particularly acute at the inception of treatment.

The prior art has contemplated various pads, shields and other apparatus, but none are believed to have offered the simplicity, comfort, cleanliness and relative ease of use as the system of the present invention.

A listing of patents which may have some pertinence to the field of dental shields, pads presented below:

Patent Number	Inventor(s)	Date of Issue
5324348	Perret	06/28/1994
5160260	Chang	11/03/1992
5037296	Karwoski	08/06/1991
4913654	Morgon et al	04/03/1990
4609348	Rowland	09/02/1986

-continued

Patent Number	Inventor(s)	Date of Issue
4559013	Amstutz	12/17/1985
4257975	Ghafari et al	07/09/1985
4512740	Kurz	04/23/1985

As may be discerned by a review of the above, the prior art recognizes the general concept of the utilization of shields to prevent injury from orthodontic appliances; as contemplated in U.S. Pat. No. 4,913,654 issued 1990, which teaches a plastic shield configured to engage the bracket and wire of the appliance.

U.S. Pat. No. 4,512,740 teaches another embodiment of a plastic shield, also configured to engage the brackets of an orthodontic appliance.

U.S. Pat. No. 5,037,296 teaches a "Lip Protector from Orthodontic Wires and Brackets", teaching a strip of pliable plastic or rubber configured to envelope the brackets and wire of an orthodontic appliance.

U.S. Pat. No. 4,609,348 teaches the utilization of foam resin shields for preventing injury from braces. See the discussion in Column 1, lines 16-26, which discusses the known utilization of many years of lengths of wax applied to the braces to shield same from the lips of the user.

U.S. Pat. No. 4,559,013 teaches an orthodontic shield utilizing silicone.

U.S. Pat. No. 4,527,975 and 5,160,260 teach caps which fit over the brackets of an orthodontic appliance.

U.S. Pat. No. 5,324,348 teaches a "Disposable Orthodontic Wire Marker" comprising a shaft made of stiff material coated on one end with a binder such as wax for marking metal wires.

The remaining patents teach various orthodontic shields, dams, sponges and the like, some of which are fabricated from gauze laminated with other materials, including U.S. Pat. No. 4,071,955 entitled "Highly Absorbent Sponge".

In summary, while the known prior art has contemplated several and diverse shields, guards, pads and the like for isolating an orthodontic appliance, shield, damaged teeth, or dental work from the flesh of the user, it is submitted that none have provided the simplicity, comfort, cleanliness and relative ease of use as the system of the present invention. As shown, plastic shields which are mechanically affixed to the orthodontic appliance may dislodge, and the edges of the shields themselves may be irritating to the tongue or gums of the user.

GENERAL SUMMARY DISCUSSION OF THE INVENTION

Unlike the prior art, the system of the present invention provides a system for enveloping and shielding an orthodontic appliance from the flesh of a user in a secure, comfortable, sanitary, in a relatively cost effective and easily maintained fashion.

As indicated, the present invention relates to a shield system configured to protect the lips and tongue of a user from an installed orthodontic appliance, dental work, or the like, in the form of a shield formed from material which is affixed to an orthodontic appliance between the teeth and the lips, thereby shielding the inner lips and tongue of the user from orthodontic wires, brackets, dental work, broken teeth or other irregular, pointed, or jagged surface.

The preferred embodiment of the present invention comprises a strip having therein a light material such as, for

example, mesh gauze, impregnated and surrounded by a pliable material such as, for example, dental wax or the like, the strip further having disposed on an outer side a cover of thin film plastic wrap or the like, forming a laminate strip of pliable material having an outer smooth surface and an inner mesh for strength, durability, and pliability.

The preferred embodiment of the invention contemplates strip is of an adequate width to envelope the raised portion of a dental appliance or other dental work, and of sufficient length preferably to cover the length of the appliance or dental work. Ideally, the laminate strip is of sufficient width and thickness to allow the body of the strip to bend about the dental work to engage and cover the edges and cover or fill voids, providing an removable anchoring of the strip about the dental work, while shielding and covering same.

In use, the user cuts the strip to the desired length so as to envelop the bracket and/or wire of the appliance, applying pressure to the strip and manipulating same so that it wraps about the exterior of the brackets, so as to allow the plastic properties of the strip to engage the brackets and retain the strip to same. Because the present invention contemplates the utilization of dental wax as the main material, it may be necessary to warm the wax between the hands of the user, or in a warm cup of water prior to application, to provide a soft, pliable material for application. After enveloping the appliance with the strip, inner lips of the user are shielded from the rough surfaces thereof, and the user may enjoy foods and beverages as normal. As indicated, the strip may be removed after eating for cleaning of the teeth, and replaced with a new strip when shielding is again desired.

An alternative embodiment of the present invention contemplates the wax of the invention being infused with a breath freshener, fluoride, teeth whitener or medication, such as a topical anesthetic to relieve pain, an anticoagulant to prevent bleeding, or an antibiotic to prevent infection.

An important feature of the lamination of the present invention is that it provides the soft, sanitary shielding of the rough areas of dental wax, but without the need for forming, application, re-application, and picking out of residue once removed. Only plain dental wax, the laminate of the present invention, with the mesh infused therein, provides a means to hold the structure together during application and removal, while providing a means of strengthening the laminate to discourage unintended loosening of the shield by talking, eating, or other activities. Further, the thin film plastic sheeting covering the outer side of the strip provides a smooth surface to interface with the tissue of the user, while enclosing and locking in the wax or like material forming the body, preventing breakup and dislodging into the mouth of pieces of body material, while shielding the inner wax from food particles and preventing unintended removal of same.

It is therefore an object of the present invention to provide a shield for an orthodontic appliance comprised of soft, pliable material, which remains securely in place as installed, but is easily removable in its entirety.

It is another object of the present invention to provide a system for shielding a user's mouth tissues from sharp, abrasive, or rough surfaces, in a manner which is safe, relatively inexpensive, and effective in operation.

It is another object of the present invention to provide a system for shielding a user's mouth tissues from sharp, abrasive, or rough surfaces with a shielding material which also has infused therein for slow release a breath freshener, tooth whitener, tooth strengthener such as fluoride, or medication such as anti-coagulant, anti-biotic, analgesic, topical anesthetic, or the like.

Lastly, it is an object of the present invention to provide a system for shielding the mouth of a user utilizing a laminate strip which is designed to envelope a rough, abrasive, or sharp surface, shielding the inner mouth tissues of the user.

BRIEF DESCRIPTION OF DRAWINGS

For a further understanding of the nature and objects of the present invention, reference should be had to the following detailed description, taken in conjunction with the accompanying drawings, in which like parts are given like reference numerals, and wherein:

FIG. 1 is an isometric view of an exemplary fabrication of the dental shield of the present invention, illustrating a mesh having applied thereon a pliable material described in the preferred embodiment as dental wax.

FIG. 2 is an isometric view of the fabrication of the dental shield of FIG. 1, illustrating the curing of the applied dental wax, and the application of thin film plastic thereupon, forming a covered surface.

FIG. 3 is an isometric view of the fabrication of the dental shield of FIG. 1, illustrating the slicing of longitudinally aligned strips from the prepared batch, forming the individual dental shields.

FIG. 4 is a cross-sectional view of the dental shield of FIG. 1, illustrating an example of the mesh having the dental wax disposed thereabout, and the thin film plastic forming an outer surface.

FIG. 5 is an end, partially cross-sectional view of the dental shield of FIG. 1, illustrating the end of the prepared strip being applied to dental work on the user's teeth.

FIG. 6 is an end, partially cross-sectional view of the dental shield of FIG. 1, illustrating the prepared strip having been molded about the dental work, enveloping same.

FIG. 7 illustrates a side view of the invention of FIG. 5.

FIG. 8 is a side view of the invention of FIG. 6.

FIG. 9 illustrates a frontal, partially cut-away view of an exemplary user's mouth having dental work in the form of an orthodontic appliance installed thereupon.

FIG. 10 illustrates a frontal, partially cut-away view of an exemplary installation of the prepared strip forming a dental shield, wherein the user applies the prepared strip to the dental work.

FIG. 11 illustrates a side, partially cut-away view of an exemplary user's mouth having thereupon dental work in the form of an orthodontic appliance.

FIG. 12 illustrates the prepared strip of the present invention applied to lower dental work in the form of an orthodontic appliance, enveloping same, and protecting the inner lips and associated communicating tissues of the user.

DETAILED DISCUSSION OF THE INVENTION

Referring to FIGS. 3 and 4 of the drawings, the preferred embodiment of the orthodontic appliance shield of the present invention comprises a laminate strip 1 having first 2 and second 3 ends, a width 4, a thickness 5, and bottom 6 and top 7 faces, respectively. The strip body is formed of a pliable material 8 such as, for example, dental wax or the like, the strip further having situated therein a layer of mesh 9 such as, for example, a single layer of mesh material as distributed by Johnson & Johnson of Skillman, N.J. and utilized in its "First Aid" large sterile gauze pad, or the like, which is indicated as being of a rayon/cellulose composition. Cotton or other material, including material not par-

ticularly of a mesh configuration, such as, for example, fabric of various weaves may work with satisfactory results; the important thing is to provide a material which reinforces the wax or like material forming the body of the strip. It is envisioned that two or more plies of mesh material may be incorporated into the present system, depending upon the use, when a heavy-duty application is contemplated.

While dental wax is the preferred material for forming the body of the strip at this time, it is noted that other waxes and polymer products may be equally suitable. Preferably, the material should be non-flowing, but nonetheless somewhat pliable at a slightly elevated temperature to room temperature, which may include body temperature, having a melting point at least generally above 110 degrees, and should be substantially non-water soluble to avoid deterioration in the mouth of the user. Such a material may include, for example, a silicone or polymer based material, paraffin wax, or other substance.

Situated along the top face 7 of the strip is a smooth, preferably fluid impermeable, thin film material such as, for example, food grade plastic sheet wrap product; the preferred embodiment of the invention currently utilizes product bearing the trademark SARAN WRAP, manufactured by Dow Chemical, Inc, which is measured to be about 0.5 mm in thickness. It is noted that other thin film sheet product, including competing products known as "cling wrap" may be utilized, but has not found to date to provide as satisfactory results as the SARAN WRAP. Also, it is anticipated that a non-toxic polymer coating applied directly to the top face of the strip in liquid form and dried or cured may also provide the desired results. Ideally the product should cling to the dental wax or other material forming the pliable surface and provide a smooth contact area with the user's mouth tissue. A TEFLON coating may be utilized with or in lieu of the thin film.

An exemplary measurement of the strip 1 of the preferred embodiment of the present invention is about 4 inches long, by 0.25-0.33 inches wide, by 1/8 inches thick, although other measurements may be utilized, and the present, exemplary measurement may be trimmed as desired for use in different situations and appliance sizes.

FIGS. 1 and 2 illustrate an exemplary method of manufacture of the strip of the present invention. As shown, a square of thin film plastic material 15 is laid flat upon a non-stick, preferably heated surface or area (the preferred embodiment was made heating the surface via double boiler) in a single layer. Laid thereupon is a single sheet of gauze mesh 11 forming a plurality of threaded squares (the exemplary mesh currently utilized having formed therein about 330 squares per inch), which is shown having the exemplary measurement of four inches by four inches (4"×4"). In order to facilitate further flattening of the mesh and thin film plastic, the periphery may be flattened and spread by a stitch hoop, double hoop, or like structure. The pliable material 13 of the preferred embodiment of the invention is dental or orthodontic wax, such as that sold in block form and manufactured by John O. Butler Company, Chicago, Ill. under the trademark GUM is placed 12 in upon the mesh 11, thereafter heating the film, mesh, and wax or other material together until the wax or other material melts, for example, about 250 degrees, melting the material 13 and allowing same to infuse with the mesh and communicate with the thin film plastic material 15. If desired, the edges of the mesh and/or film may be framed by a container so as to allow the wax to be applied to the mesh 11 to a uniform desired thickness, for example, about 1/4-1/16"; the exemplary thickness is 1/8". Other sizes and thicknesses may be implemented,

depending upon the application. Upon melting and communication with the mesh, the mesh becomes infused within the wax, becoming suspended within same. The temperature mentioned is for exemplary purposes, and may vary with the materials implemented.

The product is then allowed to cool to generally about room temperature, forming a cake of shield material. As indicated, the present embodiment of the invention utilizes a thin film wrap, but future embodiments may incorporate a polymer or other coating which has like effect; in such a case, it may not be necessary to apply such coating while the wax or like body material is warm.

Once cooled to a pliable consistency, the laminate may be rolled under a rolling pin or the like or otherwise pressured to further solidify, strengthen, and provide a uniform thickness.

Alternatively, the mesh may be laid upon a flat surface, the material may be melted and infused with the mesh, and the thin film wrap may be applied thereupon.

Lastly, referring to FIG. 3, the prepared cake of shield material 17 is then sliced in longitudinally aligned strips of, for example, about 1/3-1/4 inch, providing from a 4"×4" cake generally from about 12-16 strips.

Referring to FIGS. 7, 9, and 11, the strips of the present invention are useful for shielding the tissues 22', 22 of the mouth when rough or sharp edges are present therein, and appear at this time to be best suited for enveloping the wire 20 mounting brackets 21 of an orthodontic appliance 18 mounted to a users teeth 19 or the like, which tend to have sharp edges which cause discomfort and bleeding to the cheek tissues and tongue of the user contacting said brackets.

Referring to FIGS. 8 and 12, the strip of the present invention is configured to engage and envelope 31 an irritating bracket or brackets forming an orthodontic appliance, or entire appliance (as shown) in an easily applied, yet easily removable fashion, protecting the mouth tissues of the user, while preventing the lodging of food in the appliance, etc.

In use, referring to FIGS. 5 and 10, a strip 1 is longitudinally aligned with an orthodontic appliance 18, such that the bottom face 6 faces the appliance, the top face 7 is opposite the appliance, with the smooth thin film material 15 covering the top face likewise distal the appliance. One may trim the length of the strip to correspond generally to the length of the appliance, and may measure the appropriate length by placing one end of the strip against one end of the appliance, aligning and pressing the bottom face of the strip against the appliance along the length, applying light pressure to form an indentation in the wax forming the bottom face from the appliance along the length, removing the strip, noting where the indentations cease, and trimming accordingly.

As indicated, in use, the strip 1 is longitudinally aligned 27 with the appliance 18, with preferably one end of the strip being placed over one end of the appliance, with the strip applied 18' along the length 29, with the unattached end 30 of the strip being placed 32 over the hereto uncovered end 28 of the appliance. In situations where the air is cool, or a body material is utilized which is substantially rigid at body temperature, it may desirable to warm the strip in warm water or the like, to promote pliability of the wax or other material forming the body of the strip; the strip, once warmed, would be installed to envelope the area to be covered; once cooled to body temperature, the material would become more rigid, preventing loosening of same

during use. Under such a scenario, it might be necessary to gargle with warm water to loosen the strip prior to removal.

Referring to FIG. 6, as the strip is placed upon the appliance, pressure 18' is exerted towards the appliance to meld a portion of the wax forming the bottom face into the appliance, while the longitudinal edges of the strip are likewise pressed 22, 24 against the appliance, effectively enveloping the upper 25 and lower 26 edges of the appliance, thereby encasing the appliance in the smooth, relatively inert material, forming the top face, shielding the user's tissues from jagged edges, wires, etc. of the appliance. As shown, the malleable material not only envelops the appliance, it also is received by voids in the appliance, further anchoring the strip to same.

Once installed, the present invention protects the user's inner lip, tongue and tissues from abrasion, even during eating, as said tissues communicate with the smooth top face, and the sharp edges of the appliance are isolated in the body of the strip.

The construction of the present invention is such that wax forming the body of the strip will not become dislodged, due to the laminate construction, and tests have confirmed that the system, once installed, has yet to dislodge without the user actively seeking to remove same. Nonetheless, once the user desires to remove the strip, the strip is merely grasped by the user and peeled from the appliance. The laminate construction prevents wax from retaining to the appliance, allowing the user to easily remove the strip for teeth cleaning, examination, or other activities. The strip is intended for a single use, and is generally disposed of once removed.

The strip of the present invention may be impregnated with various substances to further function as a substance delivery system. As indicated, the strips can be infused with a breath freshener, fluoride, teeth whitener, flavoring, or medication, such as a topical anesthetic to relieve pain, an anticoagulant to prevent bleeding, or an antibiotic to prevent infection.

The substances could be mixed with the wax or other pliable substance forming the body of the strip, or infused into the thin film material forming the top face of the strip, or may be micro-encapsulated in the body or top face of the strip, so that movement or pressure selectively ruptures micro-capsules, already known in the art, containing the desired substance.

The invention embodiments herein described are done so in detail for exemplary purposes only, and may be subject to many different variations in design, structure, application and operation methodology. Thus, the detailed disclosures therein should be interpreted in an illustrative, exemplary manner, and not in a limited sense.

What is claimed is:

1. A shield configured to protect the mouth tissue of a user from an installed orthodontic appliance having a length, comprising:

a. a rectilinear strip comprising a body having a length, a width, a generally uniform thickness, first and second ends, and first and second sides, said body comprising a formable material which is generally form-stable at room temperature and sufficiently pliable at an elevated temperature to be conformed to said orthodontic appliance, said material having situated between said first and second sides reinforcement means along the length of said body for promoting strength, said first side of said body further comprising a layer of smooth, generally fluid impermeable material configured to

communicate with the mouth tissue of the user, said second side of said body exposing said formable material to allow for direct application to said orthodontic appliance.

2. The mouth shield system of claim 1, wherein said material forming said body comprises wax.

3. The mouth shield system of claim 2, wherein said reinforcement means comprises a layer of mesh.

4. The mouth shield system of claim 3, wherein said smooth, generally fluid impermeable material comprising said first side of said body comprises a plastic film sheet.

5. The mouth shield system of claim 1, wherein said material is infused with a flavoring substance.

6. The mouth shield system of claim 1, wherein said material is infused with medication.

7. The mouth shield system of claim 1, wherein said material is infused with a tooth strengthening substance.

8. A mouth shield, comprising:

a. a generally flat, elongated strip comprising a body having a length, a width, a generally uniform thickness, first and second ends, and first and second sides, said length of said body greater than said width of said body, said body comprising a formable material which is generally form-stable at room temperature and pliable at an elevated temperature, said material having situated between said first and second sides reinforcement means along the length of said body for promoting strength, said first side of said body further comprising a layer of smooth, generally fluid impermeable material configured to communicate with the mouth tissue of the user, said second side of said body exposing said formable material so as to allow engagement of said formable material to said orthodontic appliance.

9. The mouth shield system of claim 8, wherein said material is infused with a flavoring substance.

10. The mouth shield system of claim 8, wherein said material is infused with medication.

11. The mouth shield system of claim 8, wherein said material is infused with a tooth strengthening substance.

12. The method of isolating an orthodontic appliance having a length from the mouth tissue of a user, comprising the steps of:

a. Providing a strip comprising a body having a length, a width, a generally uniform thickness, first and second ends, and first and second sides, said body comprising a material which is generally form-stable at room temperature and sufficiently pliable at an elevated temperature to be conformed to said orthodontic appliance, said material having situated between said first and second sides reinforcement means along the length of said body for promoting strength, said first side of said body further comprising a layer of smooth, generally fluid impermeable material configured to communicate with the mouth tissue of the user, said second side of said body configured to engage said orthodontic appliance;

b. Longitudinally aligning said strip with the length of said orthodontic appliance, facing said second side of said body towards said orthodontic appliance, and said first side of said body away from said orthodontic appliance;

c. Applying said second side of said strip to said orthodontic appliance, enveloping said second side of said strip about an exposed portion of said orthodontic appliance;

d. Allowing said second side of said strip to communicate with the mouth tissues of said user, isolating said orthodontic appliance from said mouth tissues.

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13. The method of claim 12, wherein there is further included in step "b" the step of warming said strip, rendering said body pliable.

14. The method of claim 12, wherein in step "a" said body of said strip is infused with medication, and in step "d" there is further included the step of said medication diffusing, via
5 said body of said strip, into said mouth.

15. The method of claim 12, wherein in step "a" said body of said strip is infused with flavoring, and in step "d" there

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is further included the step of said medication diffusing, via said body of said strip, into said mouth.

16. The method of claim 12, wherein in step "a", said material forming said body comprises wax, said reinforcement means comprises mesh, and said smooth, generally fluid impermeable material comprises plastic film.

* * * * *

Exhibit H



US00D485944S

(12) **United States Design Patent** (10) Patent No.: **US D485,944 S**
Grant (45) Date of Patent: **** Jan. 27, 2004**

(54) **MOUTH SHIELD**

(76) Inventor: **Michael Lee Grant**, 5907 Holly Hill Ct., West Carrollton, OH (US) 45449

(**) Term: **14 Years**

(21) Appl. No.: **29/181,731**

(22) Filed: **May 16, 2003**

(51) **LOC (7) Cl.** **28-03**

(52) **U.S. Cl.** **D28/9; D20/32**

(58) **Field of Search** **132/320, 212, 132/319, 216; D28/9; D29/108; 2/9; D20/32**

(56) **References Cited**

U.S. PATENT DOCUMENTS

221,719 A	*	11/1879	Clinton	132/216
2,199,720 A	*	5/1940	Catelin	132/320
3,948,817 A		4/1976	Grothoff	
D268,532 S	*	4/1983	Kravitz	D28/9
4,640,273 A		2/1987	Greene et al.	

5,447,168 A	9/1995	Bancroft	
D383,384 S	9/1997	Gaultier	
6,003,515 A	12/1999	Maness	
D440,357 S	* 4/2001	Stuermer et al.	..... D28/9

* cited by examiner

Primary Examiner—Jennifer Rivard

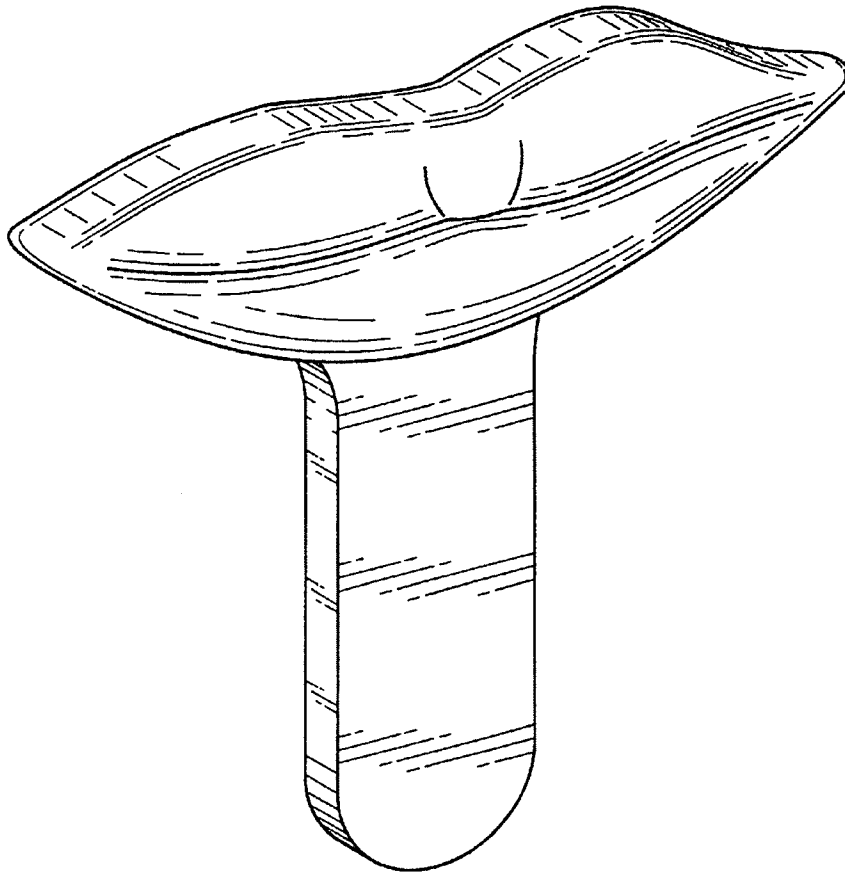
(57) **CLAIM**

The ornamental design for the mouth shield, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of the mouth shield, in accordance with the invention;
FIG. 2 is a side elevational view thereof, the opposite side being a mirror image thereof;
FIG. 3 is a front elevational view thereof;
FIG. 4 is a rear elevational view thereof;
FIG. 5 is a top plan view thereof; and,
FIG. 6 is a bottom plan view thereof.

1 Claim, 3 Drawing Sheets



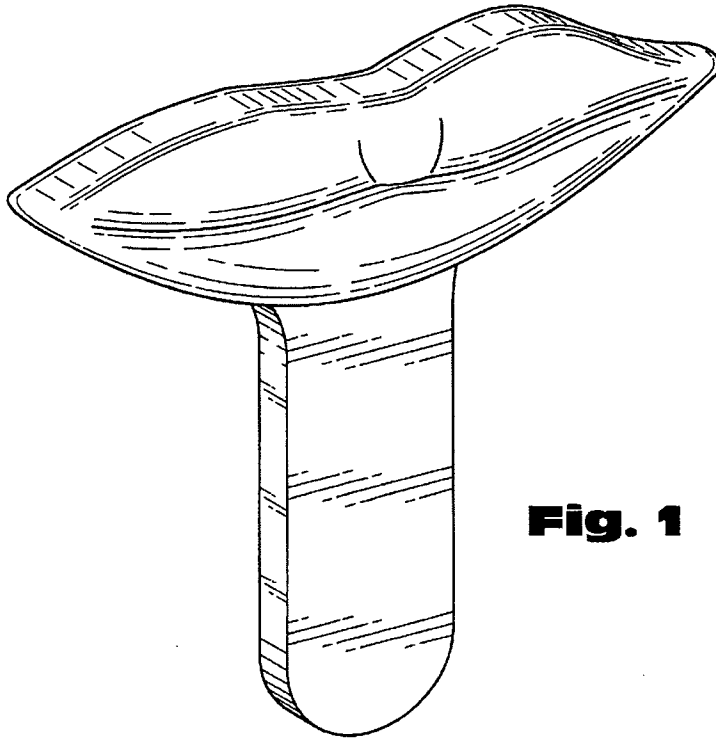


Fig. 1

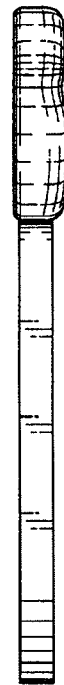


Fig. 2

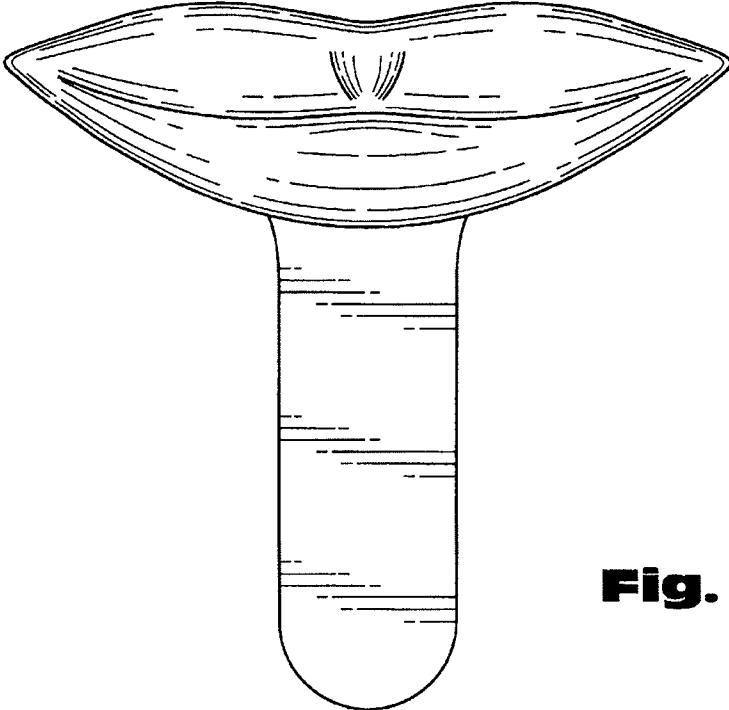


Fig. 3

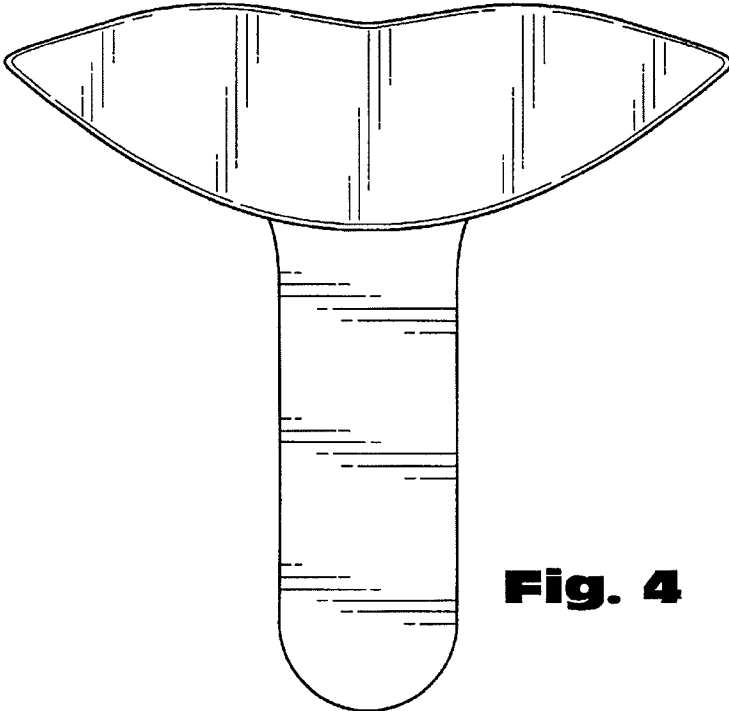


Fig. 4



Fig. 5



Fig. 6

Exhibit I

[54] DENTAL AND MEDICAL X-RAY APPARATUS

[75] Inventor: Mortimer E. Weiss, Laguna Beach, Calif.

[73] Assignee: Thoro-Ray Inc., Santa Ana, Calif.

[21] Appl. No.: 728,959

[22] Filed: Oct. 4, 1976

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 672,608, Apr. 1, 1976, abandoned.

[51] Int. Cl.² H01J 35/00; H05G 1/00

[52] U.S. Cl. 250/490; 250/439 P; 250/515

[58] Field of Search 250/404, 439 P, 510, 250/399, 490, 505, 515

[56] References Cited

U.S. PATENT DOCUMENTS

1,881,448	10/1932	Forde et al.	250/399
2,531,583	11/1950	Ott	250/404
2,946,892	7/1960	Bas-Taymaz	250/404
3,906,235	9/1975	Fischer	250/404

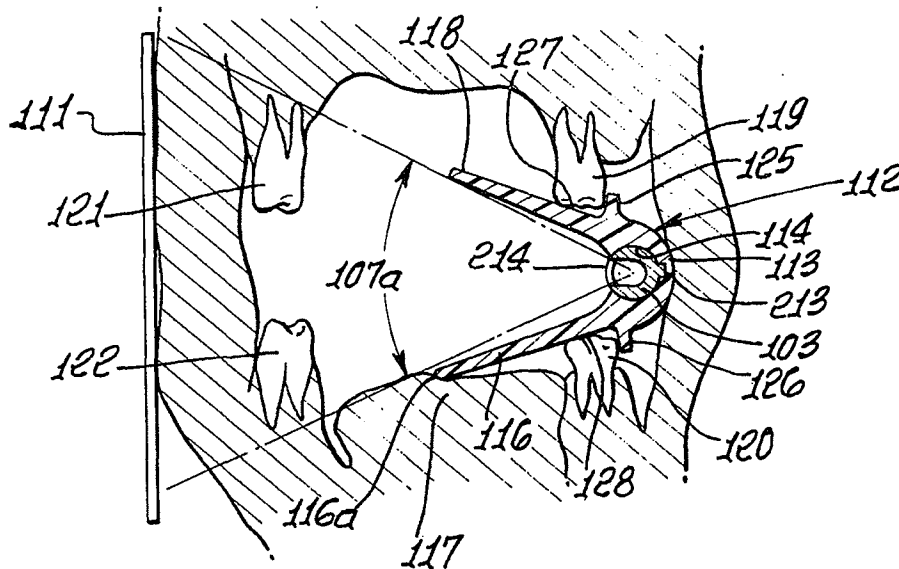
Primary Examiner—Alfred E. Smith
Assistant Examiner—B. C. Anderson
Attorney, Agent, or Firm—William W. Haefliger

[57] ABSTRACT

Dental X-ray apparatus characterized by very substantial reductions in radiation exposure of the patient, comprises:

- (a) X-ray tube means providing an electron beam,
- (b) a beam target carried by said means and located axially rearwardly thereof to be received rearwardly into a patient's mouth,
- (c) the target angled relative to said axis to produce a radiation pattern that extends forwardly of the target and also rearwardly and sidewardly of the target, and
- (d) a shield adjacent the target rearwardly thereof and extending forwardly above and below the target. The shield may also define a tongue suppressor and may be removably mounted on the tubular carrier for the target. An extra-oral adapter is also provided, to removably fit on the carrier tube. Structure carried by the tube means projects an image delineating the main path of the X-ray beam.

21 Claims, 18 Drawing Figures



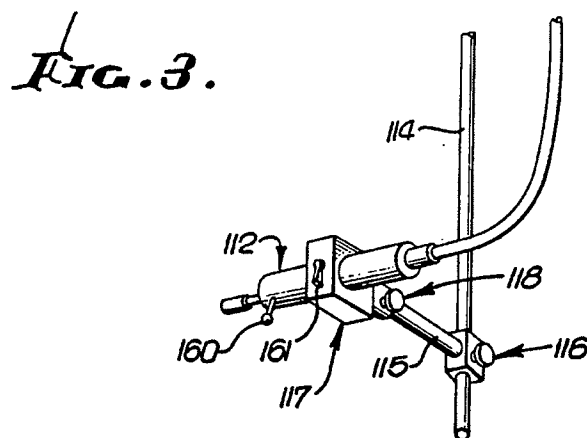
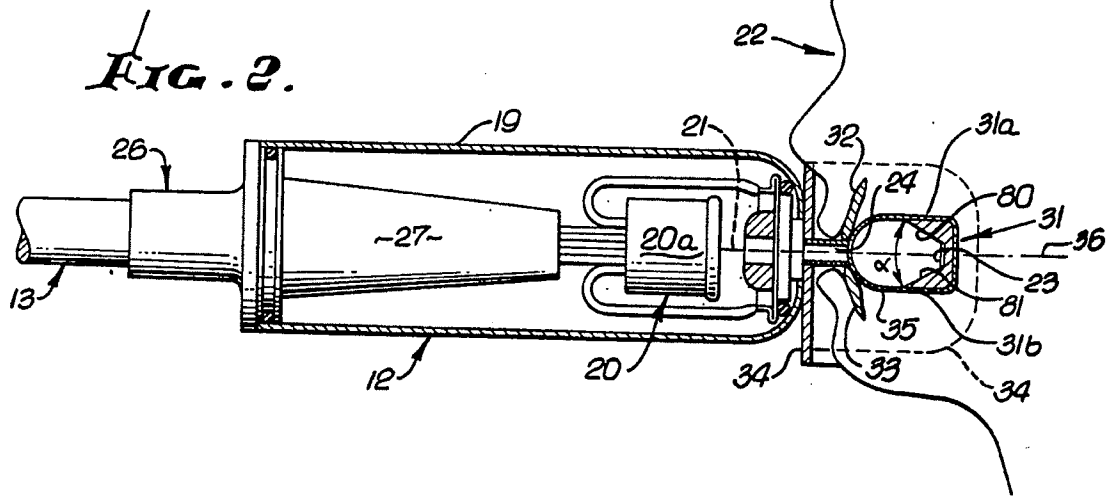
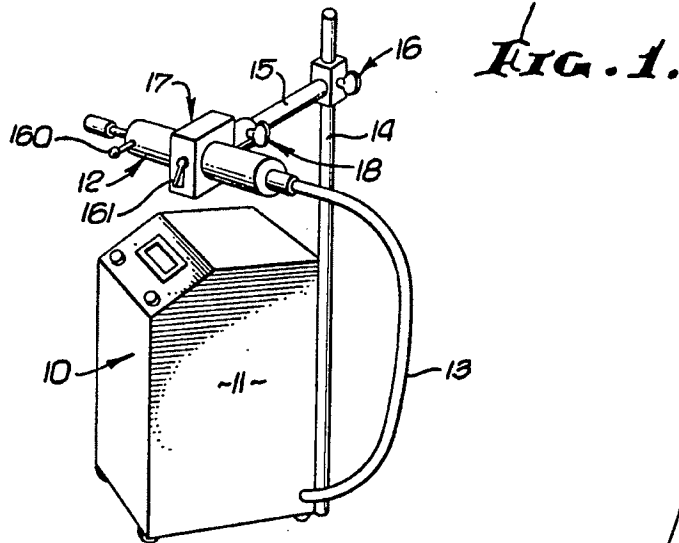


FIG. 8.

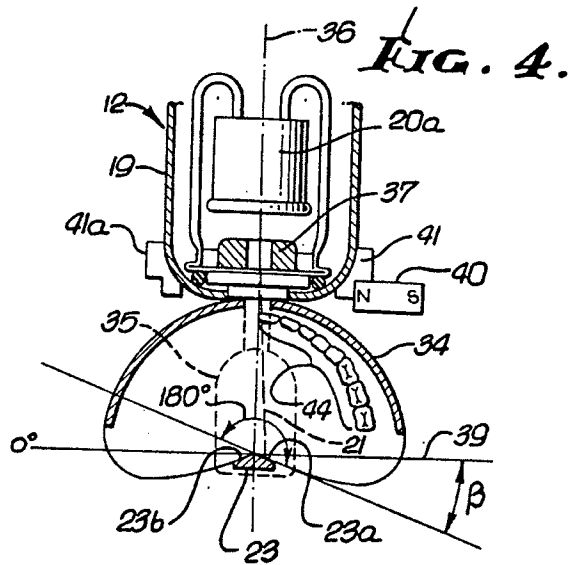
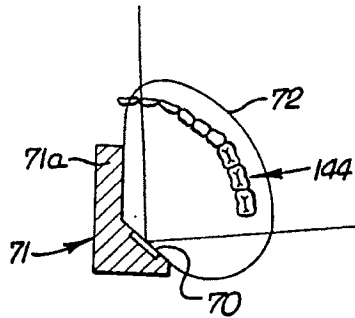


FIG. 5.

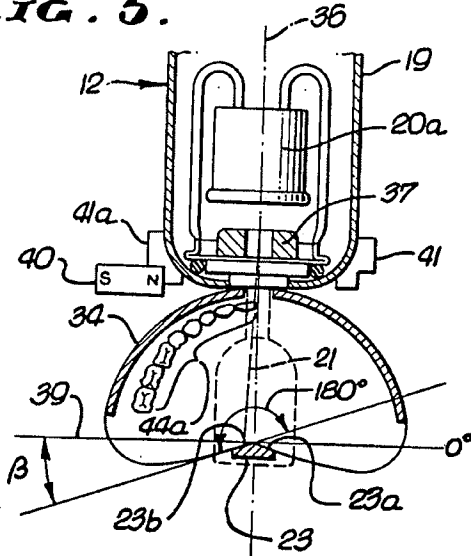


FIG. 7.

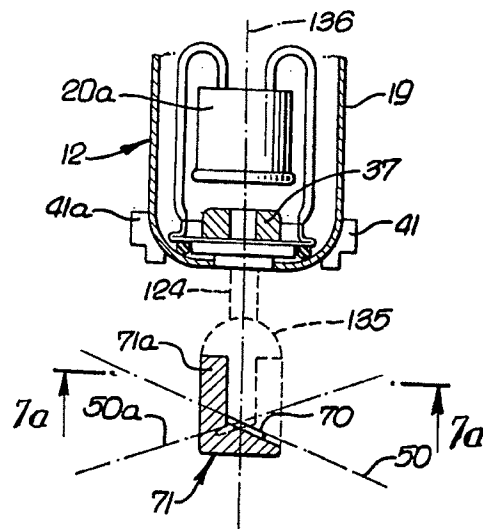


FIG. 6.

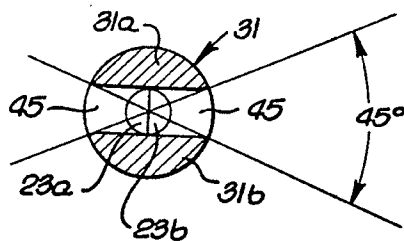


FIG. 7a.

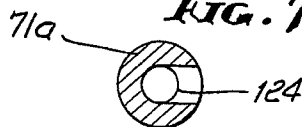


FIG. 9.

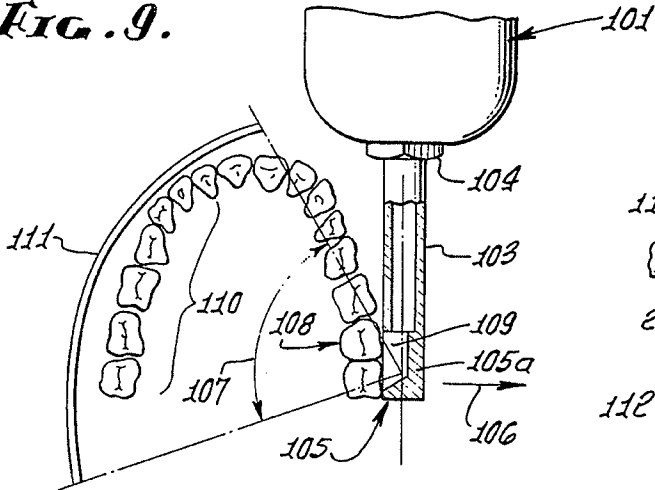


FIG. 10.

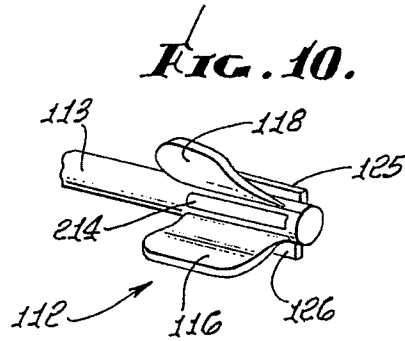


FIG. 12.

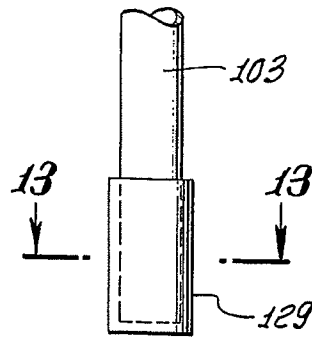


FIG. 11.

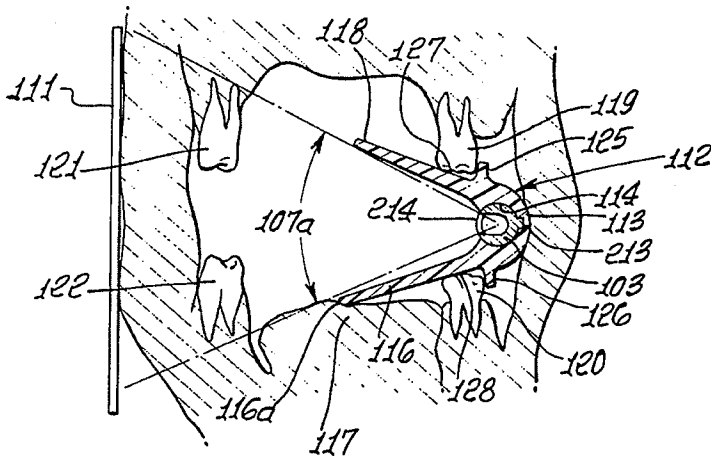
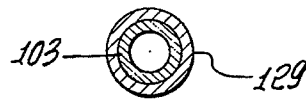
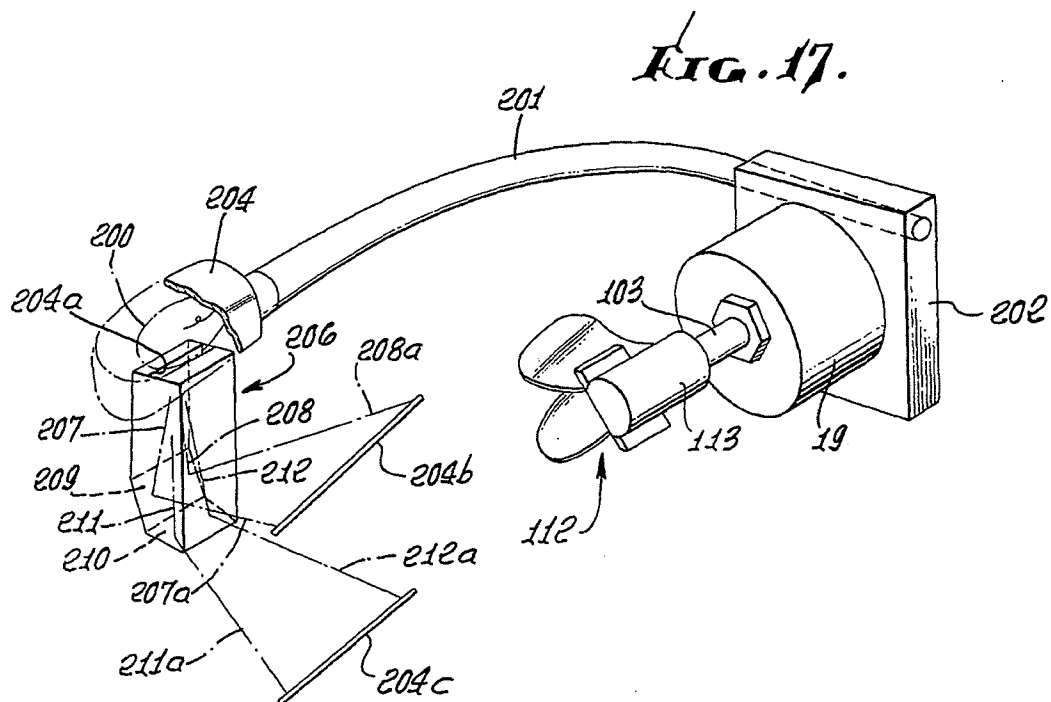
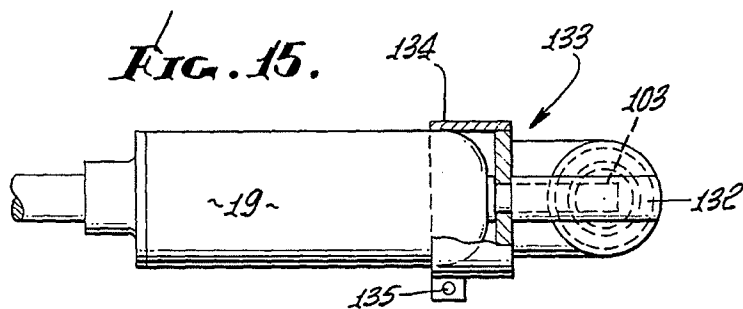
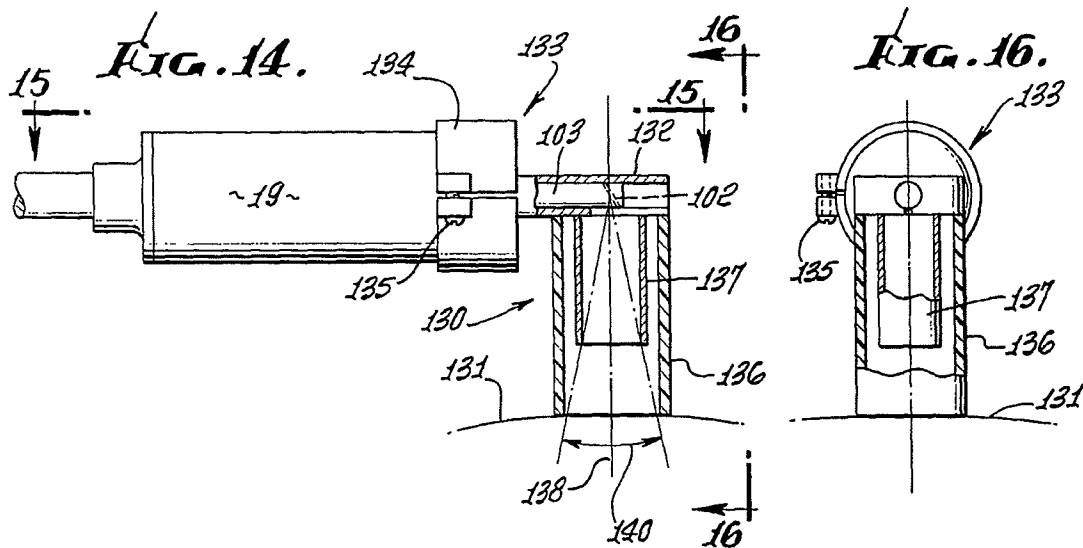


FIG. 13.





DENTAL AND MEDICAL X-RAY APPARATUS

BACKGROUND OF THE INVENTION

This application is a continuation-in-part of my earlier application Ser. No. 672,608, filed Apr. 1, 1976 and entitled "Dental and Medical X-ray Apparatus", abandoned.

This invention relates generally to X-ray apparatus and techniques; more particularly, it concerns method equipment enabling rapid X-ray examination of teeth, with substantially reduced exposure to radiation.

Present systems of X-ray examination of human teeth require twelve to fourteen exposures, accompanied by objectionably excessive amounts of side radiation to sensitive areas of the brain, cortex, sinus, throat, optic and auditory nerve centers. Recently, a technique has been proposed according to which an X-ray target is introduced into the mouth, and radiation is directed from the target back through the teeth to film supported outside the mouth, thereby to produce a so-called high resolution, panoramic radiograph. One problem encountered with that type equipment concerns the tendency to produce gagging of the patient, due to the necessity of locating the target sufficiently close to the throat that back teeth will be exposed to produced X-rays. Another problem has to do with the requirement that the upper and lower teeth be alternately exposed to radiation, which in turn requires that the shield associated with the target be re-arranged. This means that the target is removed from the oral cavity after the first exposure (as for example irradiation of the upper teeth, after which the target is re-introduced to enable the second exposure (of the lower teeth) which increases the risk of gagging and otherwise discomforts the patient.

SUMMARY OF THE INVENTION

It is a major object of the invention to provide improvements in technique and apparatus which will overcome the above objects and disadvantages. Another object is to provide target and shield configurations within the oral cavity whereby gagging will be eliminated, and all of the front and rear teeth will be irradiated, while flat upper and lower portions of the mouth and sensitive areas of the head will not be directly exposed to X-rays.

Basically, the invention is embodied in apparatus that includes:

- (a) X-ray tube means providing an electron beam,
- (b) a beam target carried by said means and located axially rearwardly thereof to be received rearwardly into a patient's mouth,
- (c) the target angled relative to said axis to produce a radiation pattern that extends forwardly of the target and also rearwardly and sidewardly of the target, and
- (d) a shield extending forwardly above and below the target and also rearwardly thereof.

As will be seen, the shield typically projects forwardly both above and below the target to block radiation from passing to patient's head zones above the upper teeth and below the lower teeth; the shield may typically provide lateral openings to pass X-rays toward the back upper and lower teeth; the target may typically be angled rearwardly and sidewardly at one or both sides of the equipment axis so that radiation may pass through one or both of the shield side openings to provide access to the back teeth as well as front teeth; and

the radiation pattern produced by the target may be transversely shifted, as for example by sideward deflection of the beam to strike different portions of the target, or by physical rotation of the target, so that the target need not be removed from the mouth between exposure.

A further important object of the invention is to provide X-ray shielding and tongue suppressor means carried to be received into the patient's mouth, and characterized in that when the target is located at one side of the mouth to direct an X-ray beam toward teeth at the opposite side of the mouth the shield will protect portions of the head from the X-ray beam and the patient's tongue will be suppressed relative to the X-ray beam. As will appear, the apparatus may include a tubular carrier for the target projecting rearwardly of the X-ray tube itself, and the shielding and tongue suppressor means may advantageously comprise a component having a base defining an opening removably receiving the tubular carrier; further, that component may have arms which project sidewardly of the base with V-shaped configuration, the lower arm extending sufficiently downwardly and sidewardly as to suppress the patient's tongue when the base is received between the patient's upper and lower molars. In this regard, the referenced component may consist of plastic material containing X-ray shielding substance, as for example barium; and it may carry upper and lower projections to fit adjacent the outer sides of the patient's upper and lower molars for positioning purposes, and so that the molars may clench the component to position it for tongue suppression and shielding orientation relative to the mouth and head of the patient; also a longer source to film distance is enabled. Finally, means is provided to visually delineate on the patient's head a zone subjected to irradiation so that film may be accurately located.

These and other objects and advantages of the invention, as well as the details of illustrative embodiments, will be more fully understood from the following description and drawings in which:

DRAWING DESCRIPTION

FIG. 1 is a perspective showing of high voltage generator equipment and X-ray tube mobile or floor mount associated with the invention;

FIG. 2 is a cross sectional view of gun and target apparatus embodying the invention;

FIG. 3 is a perspective showing of an alternative X-ray tube ceiling or wall mounting;

FIGS. 4 and 5 are top plan views of gun and target relationships, in schematic form;

FIG. 6 is an enlarged frontal view of the target and shield;

FIG. 7 is a view like FIG. 4 in FIG. 5, but showing an alternative target; and FIG. 8 shows another target;

FIG. 7a is a section taken on lines 7a—7a of FIG. 7;

FIG. 9 is a view like FIG. 5, showing modified apparatus wherein the target is located at one side of the patient's mouth;

FIG. 10 is a perspective view of an X-ray shield and tube positioning tongue suppressor attachment;

FIG. 11 is a vertical section taken through a patient's mouth showing use of the FIG. 10 attachment in conjunction with an X-ray tube, target and carrier as for example is shown in FIG. 9;

FIG. 12 is a plan view of a carrier for an X-ray producing target, and showing a filter on the carrier;

FIG. 13 is a cross-section taken on lines 13—13 of FIG. 12;

FIG. 14 is a side elevation showing an attachment for the FIG. 9 apparatus, enabling its use externally of the patient's mouth;

FIG. 15 is a plan view taken on lines 15—15 of FIG. 14;

FIG. 16 is an elevation taken on lines 16—16 of FIG. 14; and

FIG. 17 is a perspective view of means to delineate a head zone to be irradiated.

DETAILED DESCRIPTION

Referring first to FIG. 1, X-ray apparatus 10 includes a high voltage generator console 11 to which X-ray tube 12 is electrically connected, as via cable 13. A suitable adjustable support for the tube 12 includes upright post 14 carried by the console; an arm 15 adjustably attached at 16 to the post to rotate about a vertical axis; and a mount 17 for the tube apparatus and adjustably attached at 18 to the arm 15 to rotate or swivel about a horizontal axis.

Extending the description to FIG. 2, the tube means 12 includes a housing 19 containing the micro-focus X-ray tube 20 which produces an electron beam 21. A beam target 23 is carried by the tube means and is located axially rearwardly thereof (relative to the patient's head 22) to be inserted or received relatively rearwardly into the patient's mouth. The forward and rearward axis appears at 36. In the example shown, the target 23 is carried by the rearward end portion of a rearwardly axially elongated tubular element 24 projecting into the patient's mouth. The cable 13 is attached to the housing at 26, and passes through an insulator 27 to the gun 20a. The inner conductor of the cable is at high potential while the outer cable sheath is at ground potential and is solidly connected to the tube housing. The tube anode is also at ground potential and only the electron gun 20a is at high potential, insulated by gas or oil inside the tube housing. This provides the necessary electrically shock-proof mounting for intra-oral radiography.

An alternative ceiling mount for the tube 112 in FIG. 3 includes an upright post 114 affixed to or carried by the ceiling of a room. Elements 115-118 correspond to elements 15-18 in FIG. 1.

The target 23 may consist of tungsten embedded in a copper shield 31, the latter having upper and lower rearwardly tapering surfaces 80 and 81 which define an angle α there-between. That angle subtends a zone which encompasses the patient's upper and lower teeth (including root areas) indicated at 32 and 33, but not including the brain or sinus area, the latter as well as the throat being protected from radiation impingement. In this regard, an X-ray film holder 34 is carried by the apparatus 12 to extend at the front of the patient's mouth, and to overlap his cheeks at opposite sides of the mouth. The film holder is also substantially subtended by the angle α . Alternatively, the film may be held in place against the patient's face as by an elastic strap wrapped around his head, or the strap may incorporate VELCRO holding means. The target and shield are carried by the anode envelope 35 which is in turn carried by the tubular element 24. The anode envelope material is a low X-ray absorption material such as beryllium, titanium or aluminum, and forms the window for radiation emission.

Extending the description to FIG. 4, the tube anode 37 is shown axially rearwardly of the gun 20a. The target 23, located axially rearwardly of the anode, has surfaces 23a and 23b angled rearwardly and transversely (i.e. sidewardly) relative to the axis 36. Surfaces 23a and 23b are transversely symmetrical relative to axis 36, and taper axially forwardly, as shown, at angles β relative to an upright plane 39 normal to axis 36; angle β may for example be about 20°.

In accordance with an important aspect of the invention, means is provided to effect transverse shifting of the radiation pattern produced in response to beam incidence on the target. Such means may comprise a magnet supported to be shifted transversely to deflect the beam transversely relative to the target; for example, FIG. 4 shows the magnet 40 suitably supported at 41 by the tube at the right side of the axis 36, and rearwardly of the anode 37, the magnet acting to deflect the beam 21 transversely rightwardly so that it impinges on surface 23a. As a result, X-rays are produced to travel forwardly through the upper and lower teeth at the right side of the patient's mouth and to the film in holder 34, such teeth indicated at 44. Actually, radiation may extend transversely over the 180° angle indicated, and defined by the plane of surface 23a, and the shield does not interrupt such sideward radiation. See in this regard the shield openings 45 at opposite sides of the target, in FIG. 6. Accordingly, the shield has sections 31a and 31b above and below the target.

Upon completion of exposure of the right side teeth 44 to X-radiation, the magnet 40 is transversely shifted to the left side of axis 36, i.e. to a position as for example appears in FIG. 5. In that position, suitably supported at 41a by the tube, the magnet acts to deflect the beam 21 transversely leftwardly, so that it impinges on target left surface 23b. As a result, X-rays are produced to travel forwardly through the patient's upper and lower teeth at the left side of the mouth, and to the film in the holder 34, such teeth indicated at 44a. Here again, radiation may extend transversely over the 180° angle indicated and defined by the plane of surface 23b. The shield does not interrupt such sideward radiation, but does limit radiation in upper and lower directions, to remain within the angle α previously described.

Holders 41 and 41a may suitably releasably retain the magnet, as by detents. If desired, the magnet 40 may be rotatably carried to swing about axis 36 between the positions seen in FIGS. 4 and 5.

FIG. 7 shows an alternative means to effect transverse shifting of the X-ray pattern with a fixed target, seen in FIG. 8. In this view, the tube 12 and supported target 170 are rotatable about axis 136 between the solid line and broken line target surface positions shown at 50 and 50a. For example, in FIG. 1 the mount 17 may incorporate means to rotatably support the tube 12 to rotate about axis 136. A sidewardly projecting handle to rotate the tube 180° outside the mouth appears at 160. A tube position locking toggle appears at 161. In target position 50, the operation corresponds to that described in FIG. 4; whereas in target position 50a, the operation corresponds to that described in connection with FIG. 5. Envelope 135 and support element 124 correspond to items 35 and 24 in FIG. 2.

FIG. 8 shows the modified tungsten target 70 supported by shield 71, the latter projecting forwardly at 71a sidewardly of the target to block X-ray sideward travel and confine same to the region 72. The latter is related to teeth 144 at one side of the mouth, as shown.

Portions of the copper shield 71 not shown extend above and below the target and forwardly as in FIG. 6, so that a side opening is formed at only one side of the target. Target 70 and shield 71 rotate with the tube, as explained above.

Finally, it should be pointed out that since the X-ray intensity necessary for the required film density is proportional to the square of the focus-to-film distance, the radiation output of the X-ray source at 5cm need be only 1/25 or 4% of that required at 25cm with the conventional extraoral X-ray tube distance.

The wide-angle radiation pattern of the present tube can expose a panoramic view of half the mouth including upper and lower teeth in one exposure, so that only two X-ray pictures are necessary instead of 12 with conventional extraoral tubes. When this correction 1/6 is included in the 4% noted above, the total reduction in radiation amounts to only .66% of that required with conventional dental radiography for the same visual information. This is a very significant reduction in radiation dosage which is less than 1% of the present radiation level for whole-mouth dental radiography.

Referring to FIG. 9, the modified apparatus 100 includes an X-ray tube means 101, and a target 102 spaced from the tube to be received rearwardly into a patient's mouth. A tubular carrier element 103 for the target is attached to the tube means as at 104 and projects rearwardly. The target may be supported by a shield 105 similar to shield 71 described above. It is carried by the carrier tube 103 and projects forwardly at 105a sidewardly of the target to block X-ray sideward travel in the direction 106 and confine X-ray travel to the region designated at 107. The latter is related to teeth 108 at one side of the mouth, as shown. Portions of the shield extend above and below the target (as in FIG. 7a) and forwardly of the target as at 105b, so that a side opening is formed at only one side of the target. The target and shield rotates with the carrier probe or tube 103, and a window 109 is formed in the latter to pass X-rays. With the 30° target oriented as shown, and between upper and lower molars at one side of the mouth, the sidewardly directed wide angle X-ray beam at 107 traverses all the upper and lower teeth 110 at the opposite side of the mouth, a film 111 being located outside or inside the mouth and proximate teeth 110 for exposure to the X-radiation and recordation of tooth and gum images. Accordingly, only two exposures are needed to record images of all teeth, one exposure as illustrated, and an opposite side (mirror image) exposure with the target located between the molars at the opposite side of the mouth and directing X-rays rightwardly.

Referring to FIGS. 10 and 11, the elements 100-105 and 109 remain as in FIG. 9; however, additional and very important structure is provided, namely, X-ray shielding and tongue suppressor means carried by the apparatus to be received into the patient's mouth and characterized in that when the target is located at one side of the mouth to direct an X-ray beam toward teeth at the opposite side of the mouth the shield will protect portions of the mouth from the X-ray beam and the patient's tongue will be suppressed relative to the X-ray beam. While such apparatus may take various forms, that form as illustrated by component 112 in FIGS. 10 and 11 is of unusual advantage. It includes a base 113 which is rearwardly lengthwise elongated and forms an elongated opening or semi-circular bore 114 sized to snugly receive the tube 103, i.e. with frictional or other (such as tongue and groove at 213) interfit resisting

relative rotation of the component 112 and tube 103. Preferably, the component 112 has removable attachment to the tube 103, for ready replacement by another component for use with a different patient. Thus, component 112 may be dispensable, and provides a new, sterile hygienic cover for the tube 103 for each use. Tube 103 may consist of copper or Monel, and have a titanium window 214 to pass radiation.

The component 112 also typically includes arms projecting sidewardly from the C-shaped base 113 with V-shaped relative configuration, the radiation passing between the arms. As illustrated, the lower arm 116 extends downwardly and sidewardly sufficiently to extend centrally over the patient's tongue 117 to forcibly suppress same out of the main path of the radiation beam, the vertical path of which may sweep an arc such as at 107a in FIG. 11. Note the edge 116a of arm 116 over the center of the tongue, with base 113 clenched between the patient's upper and lower molars 119 and 120 at one side of the mouth (the right side, as also related to FIG. 9). The upper arm 118 typically extends upwardly and sidewardly toward the root area of the upper molars 121 at the opposite side of the mouth, and in this regard, arm 116 typically extends toward the root area of molars 122. The two arms also function as shields to prevent X-ray travel outside the path or arc 107a, i.e. protecting the palate and below tongue areas of the head, containing sensitive gland, sinus and brain zones. The X-ray paths 107 and 107a may include the temporo-mandibular joint.

The component 112 may advantageously consist of plastic material (such as polyethylene) containing X-ray shielding material, as for example barium particles dispersed throughout the plastic in as-molded or formed condition. Other shield substances and component compositions may be utilized.

In the mode of use as illustrated in FIGS. 9 and 11, with a substantially longer source-to-image distance than is characteristic of FIG. 4 use, the magnification, distortion and geometric unsharpness are all reduced to improve the overall resolution of the X-ray beam.

FIG. 11 also illustrates the provision of upper and lower integral projections or tabs 125 and 126 on the component 112, to engage the outsides of the posterior molars as shown. They aid in positioning the component relative to the molars when the patient bites down onto the outer surfaces 127 and 128 of the component. Pockets are formed between the lengthwise extending tabs 125 and 126 and arms 116 and 118, to receive and locate the molars, during bite-down, firmly locating the arms 116 and 118.

FIGS. 12 and 13 show the provision of an additional X-ray filter 129 extending over the tube 103. Tubular filter 129 may consist of aluminum or other shielding material. The filter may form a window to register with window 109.

FIGS. 14-16 illustrate the use of an extra-oral source adapter removably carried by the tube 103. The adapter structure 130 typically projects sidewardly of the carrier tube 103 and target 102, and is located to pass an X-ray beam sidewardly from the target toward a patient's anatomy, and exteriorly thereof. For example the structure may be placed against the cheek area 131 adjacent the teeth, the X-ray film then being located inside the mouth in a conventional manner. The structure 130 may include a support cylinder 132 removably slipped onto or over the tube 103, and suitably secured to the X-ray tube housing, as at 133. The latter may

include a bracket 134 which encompasses the housing 19 and may be clamped thereto as by tightening screw 135.

The structure 130 includes beam collimator means defined by plastic cylinder 136 and internal metallic tubular shield 137. These elements extend generally coaxially with respect to the axis 138 of the X-ray beam embraced by arc 140. Element 136 projects further from the cylinder 132 than element 137, and both tend to limit the beam to a narrow cone circumscribing the rectangular periapical X-ray film used in conventional extra-oral radiography.

Among the advantages of the above apparatus are the following:

1. Increased magnification of the tooth area facilitates diagnosis; for example, detection of pulp in the root area is made easier, and the results of grinding of teeth show up more clearly. Thus, the dentist can more accurately inform the patient of grinding and the deleterious results of same including possible injury to the jaw hinge joint. Splintering of teeth is also more easily detectable, and sinus areas can be X-rayed to show up more clearly.

2. The depression of the tongue prevents obscuration of the film.

3. The aluminum filter on the tubular carrier tends to even out the beam intensity over the film area, producing a better picture.

4. The side-to-side interior X-ray technique enabled by the invention facilitates rapid taking of full mouth X-rays, using only two exposures, which in turn facilitates accurate charting of teeth by the dentist. Also, the patient can be shown the full X-ray picture, and can easily see what dental work needs to be done, so that communication between dentist and patient is improved.

5. The invention used for panoramic radiographs removes need for conventional bite-wings and their holders inserted into the mouth, obviating discomfort and injury that can result from these items.

6. The probe itself (target and carrier) can be used in emergencies such as accidents wherein patients undergo severe facial injury, so as to secure pictures of the extent of that injury. Also, information highly useful for plastic surgery can be easily obtained.

7. Irradiation of sensitive areas of the brain, optic nerve, thalamus and thyroid glands is avoided.

8. Full X-ray data, obtainable through use of the invention, is easily obtained for use as best evidence in legal proceedings.

Finally, FIG. 17 illustrates the provision of support operatively connected to the above described X-ray tube means, together with other means carried by the support at a location to project toward the patient's head an image delineating an area within the main path of the X-ray beam. As illustrated, such other means typically includes a light source 200 carried by the support arm 201, the latter extending from a mount 202 attached to the X-ray tube housing 19. The light source 200 may be suitably shielded at 204.

Light refracting structure is located in the path of light transmitted from the source 200, such structure advantageously taking the form of a double prism 206 attached to the shield 204, for example, and extending in openly spaced confronting relation to the component 112. Light projected downwardly via iris 204a and in the prism, as ray 207 and 208 is reflected by prism face 209 as rays 207a and 208a, and an upper image 204b of the iris 204a in the shield may be formed between the

rays 207a and 208a as for example on a patient's face. Similarly, light projected downwardly via the iris as rays 211 and 212 is reflected by prism face 210 as rays 211a and 212a and a lower image 204c of the iris may be formed between the rays 211a and 212a as on a patient's face. Images 204b and 204c delineate the upper and lower limits of a facial area in the main path 107 of the X-rays from the target. Accordingly, the technician will know precisely where to locate the X-ray film adjacent the patient's face.

I claim:

1. In dental X-ray apparatus,
 - (a) X-ray tube means for providing an electron beam,
 - (b) a target for said beam carried by said means and spaced therefrom to be received rearwardly into a patient's mouth,
 - (c) a carrier element projecting rearwardly of the tube means and carrying said target, said carrier element and target being interconnected,
 - (d) and X-ray shielding and tongue suppressing means carried by said carrier element to be received into the patient's mouth, and characterized in that when the target is located at one side of the mouth to direct an X-ray beam toward teeth at the opposite side of the mouth the shield will protect portions of the head from the X-ray beam and the patient's tongue will be suppressed relative to the X-ray beam, said means projecting sidewardly of and relatively away from the carrier element.
2. The apparatus of claim 1 wherein said shielding and tongue suppressor means is carried by said carrier element to be removable therefrom.
3. The apparatus of claim 1 wherein said carrier element is tubular, and said shielding and tongue suppressor means defines a generally cylindrically shaped opening removably receiving said tubular element.
4. The apparatus of claim 3 wherein said shielding and tongue suppressor means comprises a component having a base defining said opening which projects lengthwise rearwardly, and arms projecting sidewardly from the base with V-shaped relative configuration, the lower arm extending sufficiently sidewardly and downwardly relative to the base as to suppress the patient's tongue when the base is received between the patient's upper and lower molars.
5. The apparatus of claim 4 wherein said component consists of plastic material containing X-radiation shielding substance.
6. The apparatus of claim 1 wherein said shielding and tongue suppressor means comprises a component having a base which extends generally lengthwise rearwardly, and upper and lower arms projecting sidewardly from the base to define a wedge-shaped slot therebetween to pass X-rays, the lower arm extending sufficiently sidewardly and downwardly relative to the base as to suppress the patient's tongue when the base is received between the patient's upper and lower molars.
7. The apparatus of claim 6 wherein said component consists of plastic material containing X-ray shielding substance.
8. The apparatus of claim 7 wherein said substance consists of barium.
9. The apparatus of claim 6 wherein said base is generally C-shaped, and said component includes upper and lower projections to engage the outer sides of said molars.
10. The apparatus of claim 4 wherein said tubular carrier element forms an X-ray window opening

toward the region between said arms, the V-shape of said arms forming an acute angle.

11. The apparatus of claim 2 wherein said carrier element is tubular, and including an X-ray filter sleeve received on the tubular carrier, the sleeve consisting of metal.

12. In dental X-ray apparatus,

- (a) X-ray tube means for providing an electron beam,
- (b) a target for said beam spaced from said means to be received rearwardly into a patient's mouth,
- (c) a carrier element projecting longitudinally rearwardly of the tube means and carrying said target, the carrier element and target being interconnected, and
- (d) tubular structure removably carried by said carrier element and located to pass an X-ray beam sidewardly from the target toward a patient's anatomy and exteriorly thereof, said tubular structure having a laterally projecting axis and said structure extending about said axis and projecting laterally outside of and away from said carrier element and target.

13. The apparatus of claim 12 wherein said structure includes an X-ray beam shielding tube, and a cylindrical collimator element surrounding the tube.

14. In dental X-ray technique, the steps that include

- (a) providing an X-ray source, and tongue suppressor and X-ray shield means, said means and source being interconnected,
- (b) locating said source and said means between the upper and lower molars of the patient which grip the unit at one side of the patient's mouth, thereby to locate the tongue suppressor in tongue suppressing position, and
- (c) using said source to produce X-rays in the patient's mouth and directed through teeth at the opposite side of the mouth, while said means operates to shield a portion of the patient's head from said X-rays, and
- (d) receiving said X-rays on film proximate said opposite side of the patient's mouth.

15. The method of claim 14 which includes the step of providing a tubular carrier for said target, and removably mounting said means on said carrier for insertion into the patient's mouth.

16. Apparatus as defined in claim 1 including a support operatively connected to said X-ray tube means, and other means carried by said support at a location to project toward the patient's head an image delineating an area within the main path of the X-ray beam.

17. The apparatus as defined in claim 16 wherein said other means includes a light source and light refracting structure in the path of light transmitted from said source, said structure openly spaced from said X-ray shielding and tongue suppressor means.

18. In apparatus for intra-oral source dental radiography,

- (a) X-ray tube means providing an electron beam,
- (b) a flat target for said beam carried by said means and located axially rearwardly thereof to be received rearwardly into a patient's mouth,
- (c) the target angled relative to said axis to produce a radiation pattern that extends forwardly of the target and also rearwardly and sidewardly of the target, and
- (d) a shield adjacent the target rearwardly thereof and extending forwardly above and below the target, and
- (e) means carried by the shield and projecting sidewardly away from the shield to define a sidewardly projecting and confined passage to receive and pass said radiation pattern,
- (f) said last named means, shield and target being interconnected.

19. For use in combination with a hollow probe containing an electron beam target adapted to produce an X-ray beam passing through a window at the side of the probe, the target and probe being interconnected, the probe adapted for intra and extra oral use,

- (a) intra-oral means removably attachable to the probe to extend sidewardly therefrom for providing an X-ray beam shield and tongue suppressing means,
- (b) said means defining a diverging passage extending away from the probe.

20. For use in combination with a unit including a hollow longitudinally elongated probe containing an electron beam target adapted to produce an X-ray beam passing through a window at the side of the probe, the probe adapted for intra and extra oral use, the probe and target being interconnected,

- (a) extra-oral means removably attachable to the unit to extend laterally sidewardly from the probe for providing a sidewardly extending tubular collimator to pass an X-ray beam sidewardly toward a patient's anatomy and exteriorly thereof.
- (b) said means having a tubular portion sized to fit over said probe, said portion defining a longitudinally extending probe receiving opening.

21. For use in combination with a unit including a hollow probe containing an electron beam target adapted to produce an X-ray beam passing through a window at the side of the probe, the target and probe being interconnected, the probe adapted for intra and extra oral use,

- (a) intra-oral means removably attachable to the probe to extend sidewardly therefrom for providing an X-ray beam shield and tongue suppressing means, and
- (b) extra-oral means removably attachable to the unit to extend sidewardly from the probe for providing a sidewardly extending tubular collimator to pass an X-ray beam sidewardly toward a patient's anatomy and exteriorly thereof.

* * * * *

Exhibit J



US007025060B1

(12) **United States Patent**
Nicholson

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(45) **Date of Patent:** **Apr. 11, 2006**

(54) **PERSONAL BREATHING FILTER**

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A62B 18/10 (2006.01)
A61C 5/14 (2006.01)

(52) **U.S. Cl.** **128/206.29; 128/207.12;**
128/206.17; 128/859

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128/205.25, 205.27, 205.28, 205.29, 206.15,
128/206.16, 206.17, 206.29, 207.12
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

703,948 A * 7/1902 Muntz 128/201.25
1,929,343 A * 10/1933 Belloni 128/201.25
2,610,624 A * 9/1952 Haller et al. 128/205.29
3,548,823 A 12/1970 Bogacik

3,773,043 A 11/1973 Wachter
4,036,224 A 7/1977 Choporis et al.
4,614,186 A * 9/1986 John 128/201.25
5,086,768 A 2/1992 Niemeyer
D325,780 S * 4/1992 Policappelli D24/164
5,386,825 A 2/1995 Bates
5,771,885 A 6/1998 Putrello
6,550,479 B1 4/2003 Duxbury

* cited by examiner

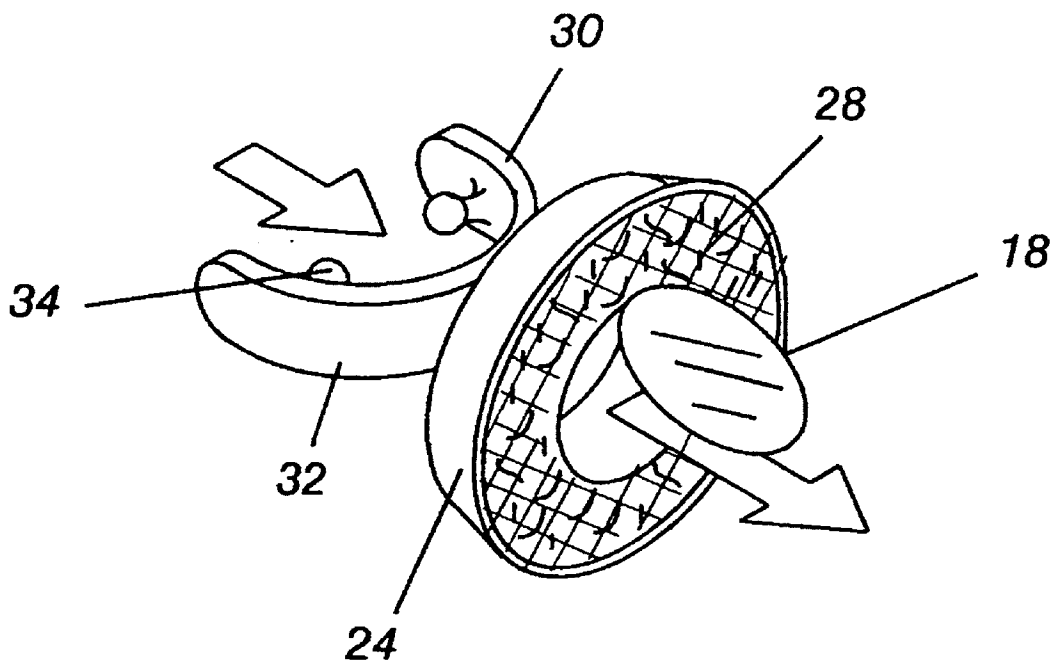
Primary Examiner—Teena Mitchell

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(57) **ABSTRACT**

A personal air filtration device has a cylindrical exhalation tube, with a one-way valve thereon. Concentric around the periphery of the exhalation tube and integrally connected to the exhalation tube rearward (proximate the user's mouth) of the one-way valve is a filter media housing. Filter media is contained between the housing and the tube. A plurality of perforations in the exhalation tube, rearward of the one way valve but forward from the housing connection ring, provide inhaled air ingress to the exhalation tube. Inhaled air forces the one-way valve closed, so that air is directed through the filter media, passes through the perforations and into the exhalation tube where the user can take in the cleansed air. The pressure of the exhaled air through the exhalation tube causes the one-way valve to open, so that exertion by the user is minimized.

16 Claims, 2 Drawing Sheets



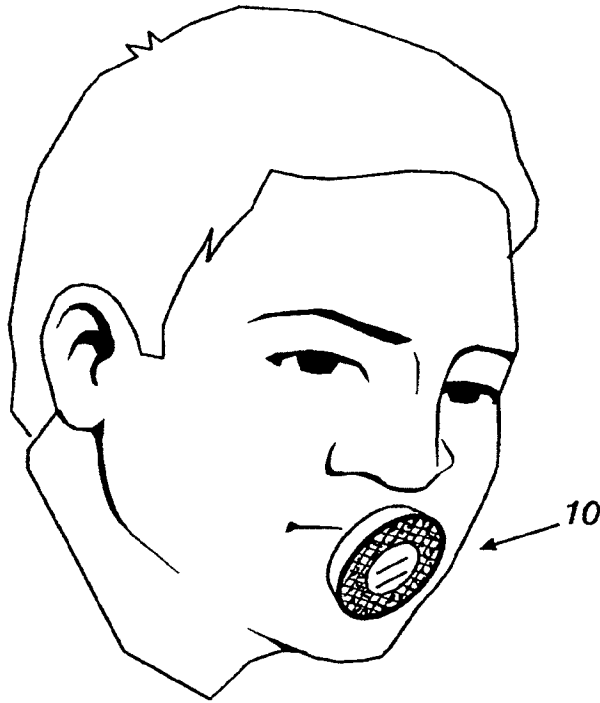


Fig. 1

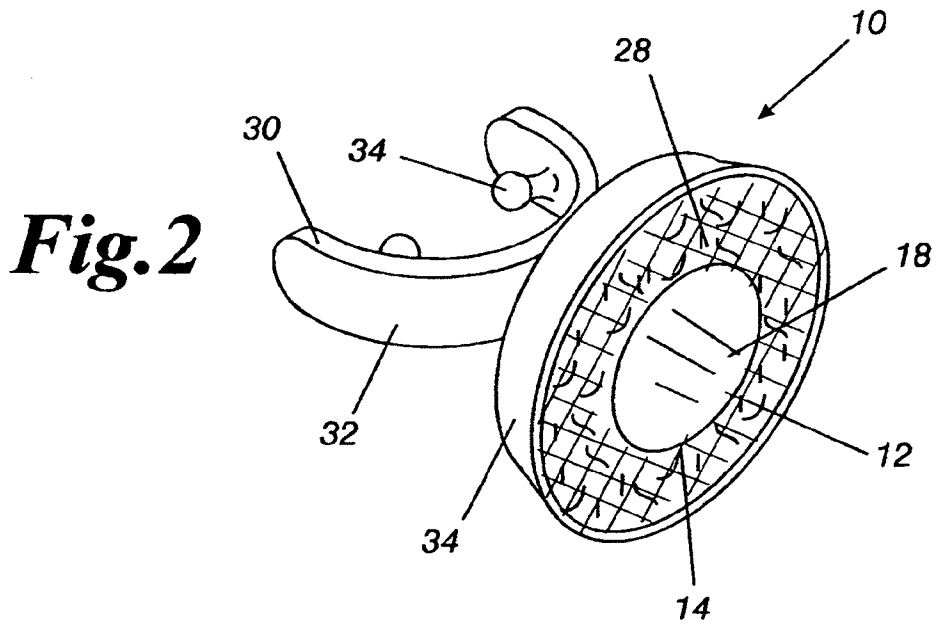
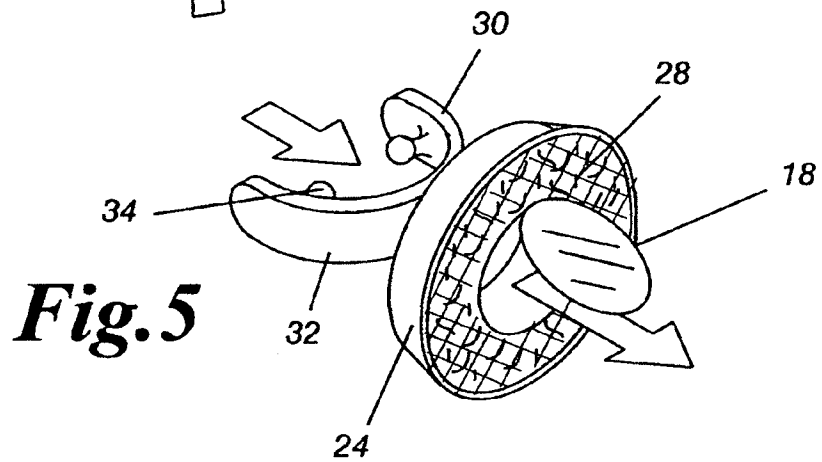
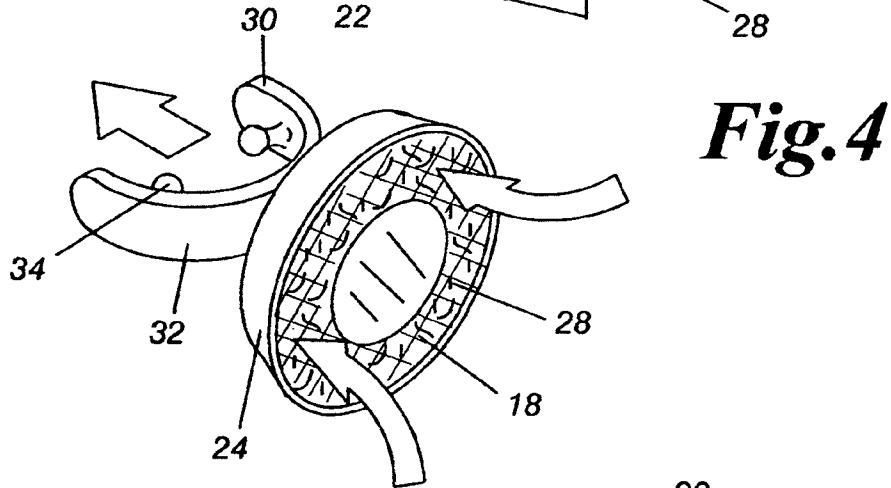
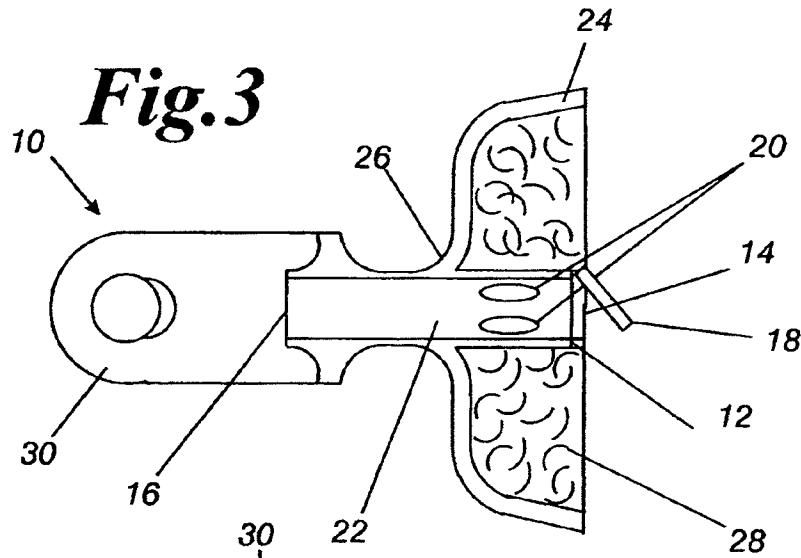


Fig. 2



PERSONAL BREATHING FILTER

FIELD OF THE INVENTION

The present invention relates generally to a personal breathing filter and, more specifically, to a personal breathing filter retained in the mouth by the user's lips or teeth, and is totally disposable.

BACKGROUND OF THE INVENTION

Respiratory protective devices have been in use in workplace and emergency type settings for many years. While these devices are very effective for those professionals that wear them, their bulky design and high expense can be a deterrent to the private individual. Furthermore, workers may forego the use of mask type respirators for periods of short term exposure where the time involved in retrieving, fitting, and replacing the respirator is thought to outweigh the potential harm to the employee. Unfortunately, the uninformed worker can experience lasting detrimental effects to his health from even short-term exposure to certain airborne contaminants.

Furthermore, the threat of airborne contaminants to those who do not regularly encounter such particles, including chemical, inorganic, and biological contaminants, is becoming more common. With city overcrowding and ever decreasing living spaces, contact with other people is a fact of daily life. Many individuals are likely to have close contact with sick persons on a daily basis. In the event of an emergency, an individual may not have time to retrieve a large mask type respirator from storage that could effectively filter inhaled air. Further, a person may find himself in a situation where access to a mask type respirator is impossible. By the time such person is able to retreat from the infected area, he may have already inhaled harmful contaminants.

While several personal respirators have been described in the prior art, each has various drawbacks and flaws that make them unsuitable for portable, individual use. Typically these personal respiratory filters provide inadequate airflow, thus requiring strenuous physical exertion by the user due to either or both of the airflow resistance through the filter media, and large dead space volume. Upon exhalation, not all air is forced from the filter. The filter volume occupied by this exhaled air, which is relatively high in carbon dioxide and other waste gasses, is the dead space. The dead space gasses are reinhaled prior to inhaling the relatively oxygen rich "new" air. If the dead space is too large, or the flow resistance is too great, extra exertion by the user can easily cause hyperventilation and unconsciousness, thus prolonging exposure to the airborne contaminants.

Despite the amount of prior art, there remains a need for an easily portable, inexpensive and wholly disposable personal breathing filter that can effectively remove both organic and inorganic particles from inhaled air, while not requiring increased effort by the user to maintain normal breathing.

DESCRIPTION OF THE PRIOR ART

U.S. Pat. No. 5,771,885 issued to Putrello discloses an exercise filter assembly with removable filters and two one-way valves. The one-way valves direct inhaled air through the filter media, and exhaled air through an exhaust port. A first filter of activated carbon, and a second filter of glass fiber are removably provided to filter contaminants

from the air. The replaceable filters are provided with airtight seals to prevent ingress of unfiltered air. The filter housing itself is too substantial to be easily portable or disposable.

U.S. Pat. No. 5,389,825 issued to Bates discloses a respiratory breathing filter apparatus that conforms with the user's mouth, and is engaged by the teeth without use of the user's hands. Similar to the Putrello filter, it comprises a plurality of one-way valves, and two filter media for removing coarse and fine particles respectively. The housing is designed to administer a medicament to the inhaled air. Again, the filter is too substantial for easy portability and disposability.

U.S. Pat. No. 3,773,043 issued to Wachter discloses a respirator having an annular interior wall in which a filter is mounted. The filter is arranged so that airflow is across its major dimension and cross-section through a relatively shallow depth filter. Such an arrangement provides little flow resistance to incoming air.

U.S. Pat. No. 3,548,823 issued to Bogacik discloses a personal respirator device having a mouthpiece with an attachable filtration bag. Both inhaled and exhaled air pass through the filtration media, such that the device has a large dead space of exhaled air, as well as substantial resistance to airflow.

SUMMARY OF THE INVENTION

The invention is a personal air filtration device that is small enough to be easily carried in a user's purse, pant pocket, or the like. The device is preferably made from an inexpensive plastic material so as to be wholly disposable after only a few uses. The filtration apparatus is a cylindrical exhalation tube, with a one-way valve therein. The one-way valve provides easy escape for exhaled air, while preventing ingress of air through the valve. Concentric around the periphery of the exhalation tube is a filter media housing, containing a filter media. The filter media housing is integrally connected to the exhalation tube rearward (proximate the user's mouth) of the one-way valve. A plurality of perforations in the exhalation tube, rearward of the one way valve but forward from the housing connection ring, provide inhaled air ingress to the exhalation tube. Inhaled air forces the one-way valve closed, whereby air is directed through the filter media, passes through the perforations and into the exhalation tube from which the user can take in the cleansed air. The pressure of the exhaled air through the exhalation tube causes the one-way valve to open, so that exertion by the user is minimized.

BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects of the invention will become more readily apparent by referring to the following detailed description and the appended drawings in which:

FIG. 1 is a perspective view of the invented personal air filter in use.

FIG. 2 is a perspective view of the personal air filter of FIG. 1.

FIG. 3 is a cross-sectional view of the personal air filter of FIG. 1.

FIG. 4 is the personal air filter of FIG. 1 illustrating the flow of inhaled air through the filter.

FIG. 5 is personal air filter of FIG. 1 illustrating the flow of exhaled air through the filter.

DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

Referring now to the figures, and particularly to FIG. 1, the invented personal air filter 10 is illustrated. The air filter 10 is wholly retained in the mouth of the user by only a biting action of the teeth or lips. This leaves the hands of the user free to engage other objects that would necessarily have to be manipulated in order for the user to go about his daily routine, or escape from a contaminated area. The personal air filter 10 is small enough that it is easily portable, being carried and concealed on the user. The small size of the filter 10 makes it ideal for use in storage bins or other bulk containers, where employees or other individuals would have ready access to the filter 10 before entering a contaminated environment. The filter is advantageously made from polyester, polyethers, nylons, or other plastics, with the preferred material being polyethylene terephthalate.

In its simplest form, the air filter 10 is comprised of an exhaust tube 12 having a forward 14 and a rearward end 16. A one-way valve 18 is located within the exhaust tube 12 proximate the forward end 14. A plurality of vent holes 20 are located rearward of the one-way valve 18, but forward from a midpoint 22 of the exhaust tube 12. A frustoconical filter housing 24 concentric with the exhaust tube 12 is attached around the exhaust tube 12 around a perimeter located between the forward 14 and rearward ends 16. The concentric filter housing 24 extends from the exhaust tube 12 in a roughly frustoconical or frustospherical shape towards the forward end 14 of the exhaust tube 12, such that the vent holes 20 provide passage from the interior of the exhaust tube 12 to the space between the filter housing's 24 interior wall and the exhaust tube's exterior wall.

The exhaust tube 12 provides both ingress for inhaled air, and egress for exhaled air. While it is shown as being cylindrical, or substantially cylindrical, the cross-sectional shape of the tube is not essential to its function. The exhaust tube 12 is provided with a forward end 14 that is open to the environment, and a rearward end 16, which is inserted into the user's mouth. An attachment location 26 is provided for purposes of a clear description. The attachment location 26 is shown as proximate to a midpoint 22 along the length of the exhaust tube 12. However, location 26 can be provided at any convenient point along the length of the tube 12.

Located circumferentially between the attachment point and the forward end 14 is a plurality of vent holes 20. The vent holes 20 are perforations in the exhaust tube 12 extending through the sidewalls thereof that permit air to flow from one side thereof to the other. The vent holes 20 can have dimension or shape, but are so formed as to provide minimal resistance to airflow through the vents 20. Depending on the type of filter material that is utilized, and the environment in which the filter is used, the vents 20 are sized and dimensioned accordingly.

A one-way valve 18 is located forward from the vent holes, but rearward of the forward end 14. The one-way valve 18 is configured so that air can flow from the rearward end 16 of the exhaust tube 12, through the valve 18, and exit the exhaust tube 12 through the forward end 14. When air is not flowing through the exhaust tube 12, the valve 18 provides an airtight barrier that prevents contaminants from being inhaled through the forward end 14 of the exhaust tube 12, and into the user's respiratory system. The valve 18 can be of a butterfly, flap, ball bearing/spring type or any other available type valve 18. The valve 18 can be located within the exhaust tube 12, wherein it seats against an internal annular ring to provide airtight sealing. Alternatively, the

valve 18 can be located as a cap to the forward end 14, so that the forward edge of the exhaust tube 12 provides the sealing ring.

A filter housing 24 is attached to the outer surface of the exhaust tube 12 at its attachment point. The filter housing 24 is preferably frustoconical or frustocylindrical in shape, extending outward and forwardly from the attachment point toward the forward end 14 of the exhaust tube 12. While a frustoconical or frustocylindrical shape is disclosed, the shape of the filter housing 24 is not so limited, and can take many other shapes depending on the shape of the exhaust tube 12, and the environment in which the filter 10 will be used. It is preferable that the forward end 14 of the filter 10 is coplanar with the forward end 14 of the exhaust tube 12. This provides a consistent symmetrical recess in which the filter material is held. Positioning the filter housing 24 in this arrangement creates a void between the outer wall of the exhaust tube 12 and the inner wall of the filter housing 24. Airflow from the void to the exhaust tube 12 interior is possible through the vent holes 20.

A filtration media 28 is held within the void between the outer wall of the outer wall of the exhaust tube 12 and the inner wall of the filter housing 24. The filtration media 28 is selected for the anticipated application and environment in which the filter 10 will be utilized. Examples of filtration media 28 include glass wool, cotton, activated carbon mesh, and the like. Additionally, the filtration media 28 can be treated with an antimicrobial, antibacterial, or biocidal agent to increase the effectiveness of filtering organic material from the air. The filtration media 28 is dense enough to effectively filter inhaled air, but not so dense that resistance to airflow is greatly increased. The filter media 28 can be used with or without a screen to prevent it from dislodging from the void. While some filter media 28 can be retained within the void without application of a screen, a screen may indeed be required with other filtration media 28. Such a screen can be applied over the vent holes to prevent introduction of filter media 28 into the exhaust tube 12, or it can be applied radially to connect the exhaust tube's forward end 14 to the terminal end of the filter housing 24.

A mouthpiece 30 may be attached to the rearward end 16 of the exhaust tube 12, to facilitate holding of the air filter 10 within the mouth of the user. The mouthpiece 30 may be made of the same material as the filter 10, or alternatively, can be of a different, preferably softer, material so that it is more comfortable inside the user's mouth. Suitable mouthpiece materials include silicone, neoprene, or other softer rubbers, polymers, or polymer composites. The mouthpiece 30 as shown has a similar shape to a mouthpiece of an underwater snorkel or other breathing device that are comfortably inserted into the mouth. A curvilinear shield 32 can be provided that is held between the gums and the lips of the user. The shield 32 is preferably sized to completely cover the interior of the lips so that the user does not have to maintain a tight seal around the mouthpiece 30 with their lips. Extending rearward from the shield 32 can be a pair of teeth clamps 34, which provide a surface on which the user can bite the mouthpiece 30, thereby retaining the mouthpiece 30 within the user's mouth.

Referring now to FIG. 4 which shows a schematic airflow diagram, upon inhalation, negative pressure in the exhaust tube 12 forces the one-way valve 18 closed, forming an airtight seal so that contaminated air cannot enter the exhaust tube 12 through the valve 18. Contaminated air is thus drawn in through the filtration media 28, where it is filtered of contaminants. The cleansed air then passes from

the filter media 28, through the vents, into the exhaust tube 12, and then into the user's respiratory system.

As shown in FIG. 5, exhaled air exits the user's respiratory system, and flows into the exhaust tube 12. Positive pressure builds in the exhaust tube 12 until the one-way valve 18 is forced open. Exhaled air then escapes from the exhaust tube 12. The amount of pressure required to open the valve 18 is only slightly greater than the ambient pressure in the tube 12. The pressure required to open the valve 18 is less than that which would force the exhaled air back through the filter media 28.

The concentric arrangement of the filter media 28 with the exhaust tube 12 is beneficial to the filtration device in that it provides the least amount of resistance to flow, and thus minimizes any additional exertion by the user. The exhaust tube 12 extends linearly out from the user's mouth, thus providing laminar flow of the exhaled air. The filter media 28 is arranged concentrically about the exhalation tube 12 to provide the largest possible area from which to draw inhaled air, while minimizing the size of the filter 10. The invented filter 10 exhibits less flow resistance, has less dead space, and thus requires less exertion by the user than other filters presently available.

It is to be understood that the foregoing description and specific embodiments are merely illustrative of the best mode of the invention and the principles thereof, and that various modifications and additions may be made to the apparatus by those skilled in the art, without departing from the spirit and scope of this invention, which is therefore understood to be limited only by the scope of the appended claims.

I claim:

1. A personal breathing filter retained solely by the mouth of a user without need for additional support, said filter comprising:
 - an exhaust tube comprising a forward end, a rearward end for insertion into the mouth of said user, and at least one vent located between said forward end and said rearward end;
 - a filter housing integrally attached about the circumference of said exhaust tube at an attachment point between said vent and said rearward end, said filter housing extending concentrically with said exhaust tube and toward the forward end of said tube, thereby defining a void;
 - a filter media retained within said void; and
 - a one-way valve located between said vent and said forward end, said valve being positioned so that airflow is directed outward from said forward end;
 - said one-way valve being sealed during inhalation to direct inhaled air through said filter media and vents,

and said one-way valve being open during exhalation to direct exhaled air outward through said one-way valve.

2. The personal breathing filter of claim 1, wherein said filter housing is frustoconical or frustocylindrical in shape.
3. The personal breathing filter of claim 1, wherein said at least one vent further comprises a plurality of vents.
4. The personal breathing filter of claim 3, wherein said plurality of vents are arranged circumferentially about said exhaust tube.
5. The personal breathing filter of claim 1, further comprising an annular ring against which said one-way valve is seated, so as to provide an airtight seal.
6. The personal breathing filter of claim 1, further comprising a mouthpiece attached to said rearward end to facilitate holding said filter within the user's mouth.
7. The personal breathing filter of claim 6, wherein said mouthpiece comprises a mouth shield adapted to fit between the teeth and the gums of the user.
8. The personal breathing filter of claim 7, wherein said mouthpiece further comprises at least one teeth clamp, to facilitate retention of said filter within said user's mouth.
9. The personal breathing filter of claim 7, wherein said mouthpiece is curvilinear.
10. The personal breathing filter of claim 6, wherein said mouthpiece is made of a different material than said exhaust tube.
11. The personal breathing filter of claim 6, wherein said mouthpiece is integrally attached to said rearward end of said exhaust tube.
12. The personal breathing filter of claim 6, wherein said mouthpiece is made from a material selected from the group consisting of silicone, neoprene, and combinations thereof.
13. The personal breathing filter of claim 1, wherein said filter media is selected from the group consisting of glass wool, cotton, activated carbon mesh, and combinations thereof.
14. The personal breathing filter of claim 1, wherein said filter media is treated with at least one antimicrobial agent, antibacterial agent, biocidal agent, or combinations thereof.
15. The personal breathing filter of claim 1, wherein said personal breathing filter is made from a material selected from the group consisting of polyester, polyethers, and nylons.
16. The personal breathing filter of claim 1, wherein said one-way valve is selected from the group consisting of butterfly valves, flap valves, and ball bearing/spring type valves.

* * * * *

Exhibit K



US005730599A

United States Patent [19]
Pak

[11] **Patent Number:** 5,730,599
[45] **Date of Patent:** Mar. 24, 1998

[54] **PROTECTIVE DENTAL SHIELD**
[76] **Inventor:** Elizabeth Y. Pak, 435 S. Detroit St.
#202, Los Angeles, Calif. 90036
[21] **Appl. No.:** 745,440
[22] **Filed:** Nov. 12, 1996
[51] **Int. Cl.⁶** A61C 5/14
[52] **U.S. Cl.** 433/215; 128/861; 433/140
[58] **Field of Search** 433/68, 69, 6,
433/215, 140; 128/861, 862, 859, 848

4,944,947 7/1990 Newman 128/861
5,234,005 8/1993 Kittelsen et al. 128/861
5,462,066 10/1995 Snyder 128/862
5,469,865 11/1995 Minneman .
5,562,106 10/1996 Hreke et al. 128/848
5,570,704 11/1996 Buzzard et al. 128/848

Primary Examiner—Paul J. Hirsch
Attorney, Agent, or Firm—Kelly Bauersfeld Lowry &
Kelley, LLP.

[57] **ABSTRACT**

A protective dental shield made from a flexible and resilient material with a planar biting portion for placement between the occlusal surfaces of the upper and lower teeth of a patient and a pair of side walls projecting up and down from the spaced apart side edges of the biting portion to form a barrier between the side surfaces of the upper and lower teeth and the patient's soft tissue areas of the inner cheeks, tongue or lips. The protective dental shield is also provided with an extra-oral portion that extends beyond the patient's mouth when the shield is in place.

[56] **References Cited**

U.S. PATENT DOCUMENTS

648,028 4/1900 Hooper 128/848
2,192,558 3/1940 Poindexter 128/861
2,708,931 5/1955 Freedland 128/861
2,833,278 5/1958 Ross .
3,307,539 3/1967 Petersen 128/861
4,044,762 8/1977 Jacobs 433/6
4,867,147 9/1989 Davis .

11 Claims, 2 Drawing Sheets

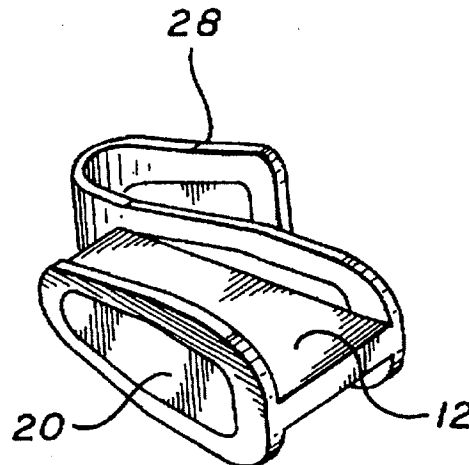
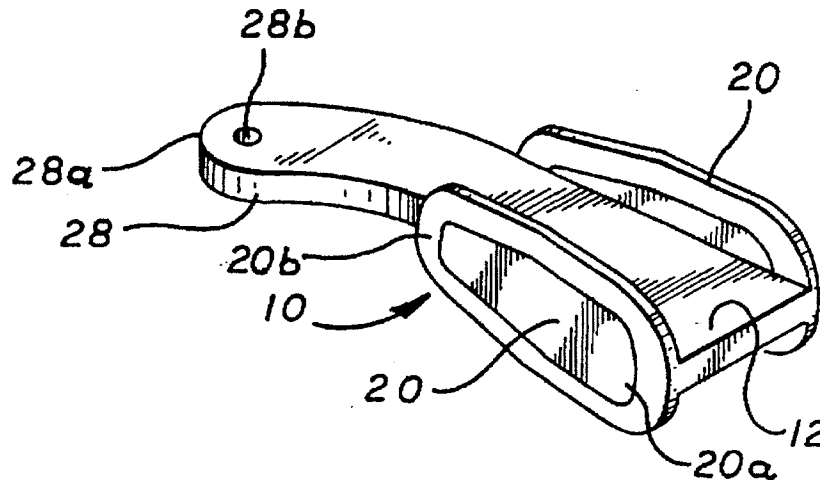


FIG. 1

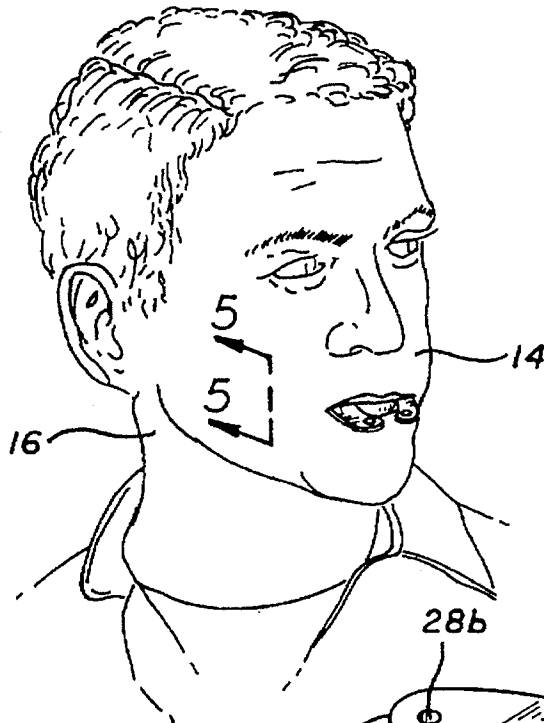


FIG. 3

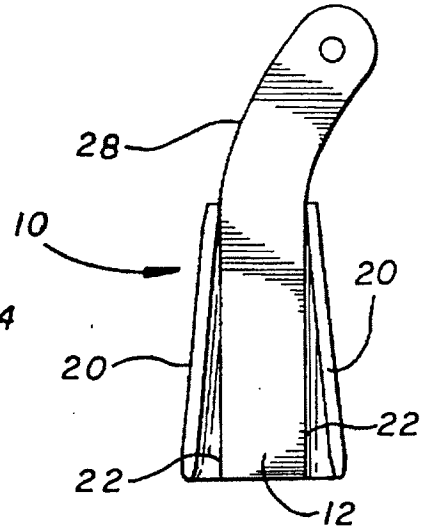


FIG. 2

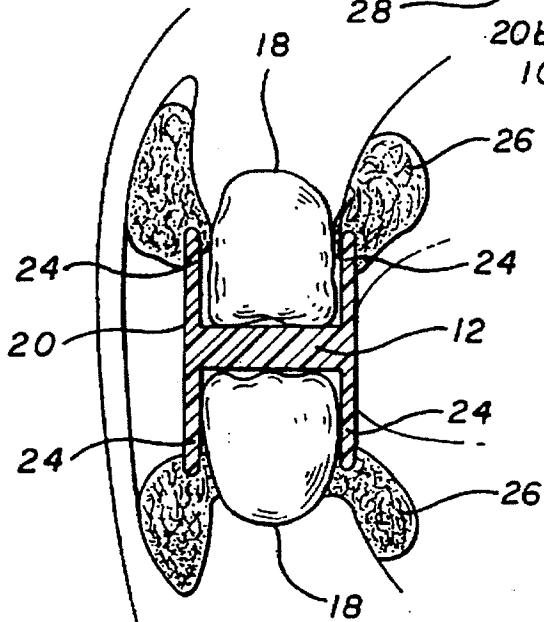
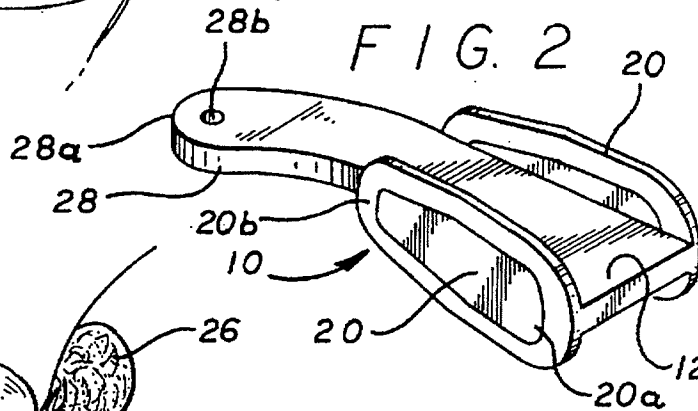


FIG. 5

FIG. 4

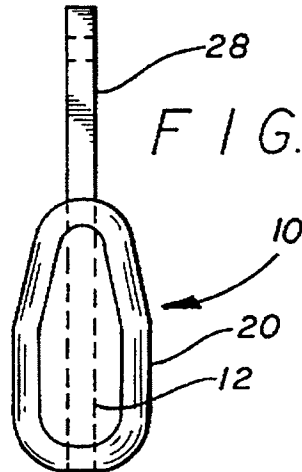


FIG. 6

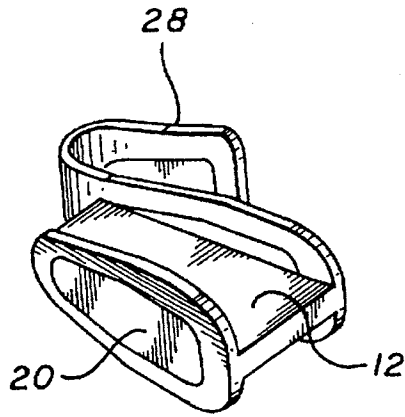


FIG. 7

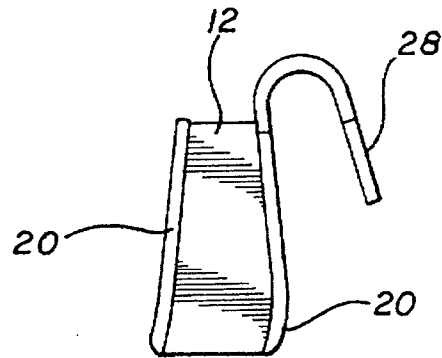


FIG. 8

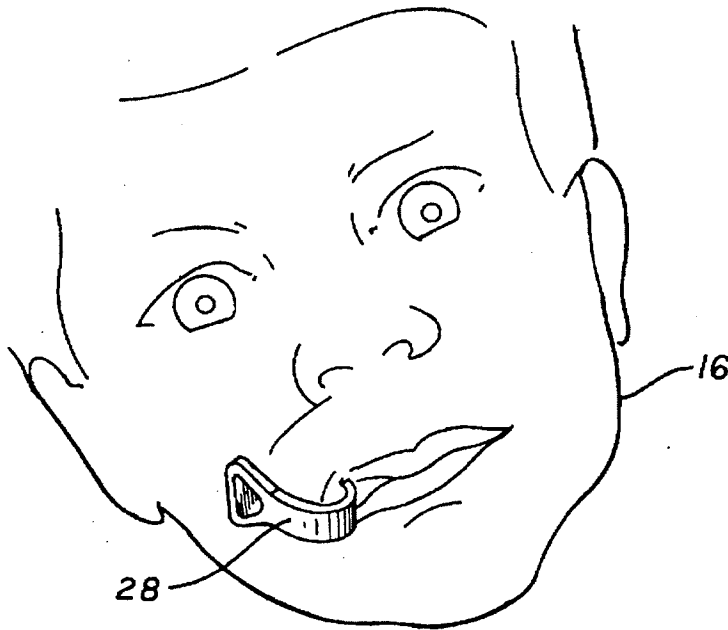
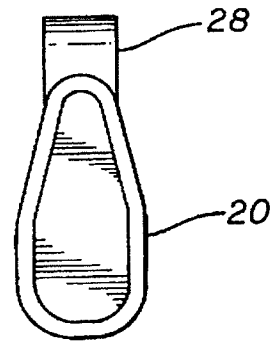


FIG. 9

PROTECTIVE DENTAL SHIELD

BACKGROUND OF THE INVENTION

This invention relates generally to devices used to protect against injuries to soft tissues such as cheeks, tongue and lips caused by accidental bites in anesthetized patients, and more particularly to a flexible dental shield for placement between the teeth so as to form a barrier around the teeth to isolate the teeth from the soft tissue areas.

Dentists, medical doctors and care providers often administer anesthetics (e.g., Novocaine) to cause a complete or partial loss of physical sensation, muscle function and pain before beginning oral treatments or surgery on their patients. Because areas of the lips, cheeks and tongue are often numbed and anesthetized along with the teeth, patients can, and often do, accidentally bite these otherwise sensitive soft tissue areas causing discomfort, bleeding, swelling and painful sores that may take several weeks to heal. In some cases, scarring of the bitten tissue may also occur. These problems are of great concern to patients and doctors, especially in cases involving the treatment of children who generally have a lower tolerance for pain than adults and also may be more prone to accidental biting of the numbed tissues.

In an attempt to prevent accidental bites and the resulting trauma in their patients, dentists or other medical practitioners often place a cotton roll or gauze padding inside the mouth on the side where the patient is numbed, and ask the patient to bite on the cotton or gauze and refrain from talking, chewing or engaging in other activities that may cause the patient to bite herself. The cotton roll or gauze padding is generally left inside the patient's mouth after the oral procedure until the numbness associated with the anesthetic wears off. While this method can provide some degree of prevention, it often provides an inadequate protection against accidental biting of soft tissue areas, and can be very uncomfortable for the patient.

Other oral devices have been designed and attempted in an effort to prevent accidental bite trauma and injury in patients. Some of these devices are not directed to patients with temporary numbness in the mouth area, and are of a more permanent nature such as those using arch wires in combination with hard oral acrylic devices designed for comatose patients or those with a long-term disability. Others utilize hard rubber or plastic mouth pieces, or flexible or inflexible bite splints over the occlusal surfaces of the teeth. In addition to their relative high cost and not lending themselves to be used readily and quickly without the need for special fitting, the non-flexible nature of such devices may cause damage to the surfaces of the teeth, soft tissues or filling material used to restore the teeth, and the wire or rigid plastic components may break away or cause the filling material to break away and be accidentally swallowed by the patient. Still other devices have been attempted which use flexible materials.

However, such devices have certain shortcomings in that some require the use of impressions or molds to fit the device for each patient, some require the wearer (typically an athlete) to place a device that covers the entire mouth area, and some only protect the occlusal surfaces of the teeth without providing a barrier around the side surfaces of the teeth, which increases the danger and possibility of accidental biting of soft tissue areas. Also, some of the existing designs are not particularly hygienic in that the portion of the device that is eventually placed inside the mouth must be touched or held prior to positioning it in the patient's mouth.

Thus, there is a need for a dental protective shield that can be manufactured inexpensively, is flexible and resilient so as to be comfortable, safe and adaptable to fit the maximum number of patients with a minimum number of sizes and shapes, provides a barrier around the occlusal and side surfaces of the upper and lower teeth so as to provide an effective protection against accidental biting of soft tissue surfaces, allows the wearer to breath and talk with minimal disturbance, enables the placement and removal of the device into and out of the patient's mouth in a hygienic and simple manner, and is disposable so as to eliminate cross-contamination problems. The present invention fulfills these needs.

SUMMARY OF THE INVENTION

The present invention resides in a dental protective shield made from a resilient and flexible material which forms a biting surface placed between the patient's upper and lower teeth with two side walls projecting from the two lateral side edges of the biting surface to form a barrier around the side surfaces of the patient's upper and lower teeth and an extra-oral portion.

More specifically, the dental protective shield of the present invention includes a biting portion formed from a planar piece of resilient material. Two side walls made from the same resilient material project from the two laterally spaced side edges of the biting portion above and below the planar surface of the biting segment. The outer extremities of the side walls are slightly angled or curved so as to provide space for the placement of the side walls against the gum tissue for a comfortable and secure fit. The biting segment and the side walls are shaped to follow the general contour and curvature of the teeth in the specific area of the mouth that has been anesthetized.

When the patient places the protective shield between the upper and lower teeth, the biting portion forms a barrier between the occlusal surfaces of the teeth, and the side walls form barriers between the side surfaces of the upper and lower teeth and the soft tissue areas of the patient's mouth such as the cheeks, lips and the tongue. In this manner, the protective shield of the invention essentially surrounds the occlusal and side surfaces of the upper and lower teeth to prevent accidental bites caused by contact between the teeth and the soft tissue areas.

In accordance with another aspect of the invention, an extra-oral portion is provided to allow the dental protective shield to be placed inside the patient's mouth in a hygienic fashion and to prevent accidental swallowing of the protective shield. The extra-oral portion is made from the same resilient material as the biting portion and the side walls. In the youth/adult version of the invention, the extra-oral portion extends from the biting portion, and is long enough to slightly protrude from the patient's mouth when the protective shield is in place. Also, in the youth/adult version, the extra-oral portion may be provided with a hole to accept dental floss or other similar material therethrough so that in case the protective shield is accidentally swallowed by the patient, the dental floss can be used to retrieve and pull the protective shield from the patient's mouth. In the child version of the protective dental shield of the invention, the extra-oral portion extends from one of the side walls so as to take the form of a side flap outside the child's mouth to prevent accidental swallowing of the dental shield. The side flap can be flossed at the corner to further help prevent accidental swallowing of the dental shield.

Once the protective shield is placed inside the patient's mouth in the correct position and side, the patient bites on

the biting portion and keeps the protective shield in his or her mouth until the numbness is gone or there is a need to temporarily remove the protective shield at which time the extra-oral portion is grasped to remove the shield from the patient's mouth.

The protective shield of the invention can be economically manufactured in a few sizes and shapes so as to follow the contour and size of typical molar and premolar teeth in most youths, adults and children. Since the shape and contour of the teeth on the left and right sides of the mouth are symmetric, the protective shield of the invention can be easily flipped around and used for the molar and premolar teeth on both sides of the mouth.

Other features and advantages of the present invention will become apparent from the following detailed description, taken in conjunction with the accompanying drawings, which illustrate, by way of example, the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of one embodiment of a protective dental shield made according to the present invention, wherein two such protective shields are shown in place on both sides of the mouth of the wearer.

FIG. 2 is an enlarged perspective view of the protective dental shield illustrated in FIG. 1.

FIG. 3 is a plan view of the protective dental shield illustrated in FIG. 2.

FIG. 4 is an elevational side view of the protective dental shield illustrated in FIG. 2.

FIG. 5 is an elevational cross-sectional view of the protective shield illustrated in FIGS. 1 and 2, taken generally along the line 5—5 of FIG. 1, showing the protective shield in contact with the wearer's teeth.

FIG. 6 is a perspective view of a second embodiment of a protective dental shield made according to the present invention.

FIG. 7 is a plan view of the protective dental shield illustrated in FIG. 6.

FIG. 8 is an elevational side view of the protective dental shield illustrated in FIG. 6.

FIG. 9 is a perspective view of the protective dental shield illustrated in FIG. 6, shown in place in the mouth of the wearer.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

As shown in the exemplary drawings, the protective dental shield of the present invention is illustrated generally at 10. The protective shield 10 is comprised of a generally elongated and planar biting portion 12 made of a resilient and flexible material such as plastic. The biting portion 12 has an appropriate size and shape so as to be capable of being easily placed in the mouth 14 of a patient 16 between a portion of the upper and lower teeth 18. The resiliency and flexibility of the material provides a safe and relatively soft surface for the patient to bite on, and allows the biting portion to maintain its shape even after being compressed under the pressure applied by the teeth. As illustrated in FIGS. 2 and 3, the biting portion 12 is trapezoidal in shape with its rear side being slightly wider than its front side to follow the natural contour of the set of teeth in the side of the mouth that are to be shielded.

A pair of side walls 20 also made of the same material as the biting portion project equal distances in upward and

downward directions from the laterally spaced apart side edges 22 of the biting portion 12. As can be seen in FIG. 5, the side walls 20 are preferably substantially perpendicular to the biting portion 12, but other angles may also be used without interfering with the function of the side walls. Each side wall 20 includes a pair of legs 24 that extend away from the biting portion 12, which may engage adjacent gingival tissue 26. As illustrated in FIGS. 2 and 4, each side wall has somewhat of an oval shape positioned symmetrically with respect to the biting portion with the rear portion 20a of the side wall being wider than its tapered front portion 20b to provide a comfortable fit inside the mouth.

With this arrangement, when the patient 16 closes his or her upper and lower teeth 18 on the protective shield 10, the biting portion 12 and the side walls 20 form a barrier around the occlusal and side surfaces of the upper and lower teeth, and thereby prevent the accidental biting of the patient's cheeks, lips and tongue.

For purposes of illustration only and not by way of limitation, typically, in most youth/adult patients the width of the biting portion can be up to 0.5 inches on its front side, 0.75 inches on its back side, its length can be up to 1.5 inches, and can have a thickness of 0.05 to 0.15 inches. Similarly, the side wall used to fit most youth/adult patients can have a length up to 1.5 inches, and has a thickness of 0.05 to 0.1 inches. Also, the width of the side wall in its rear portion 20a can be up to 0.75 inches, and tapers down towards its front portion 20b with a width of up to 0.5 inches. For children, these dimensions can be reduced according to their age. To achieve economy in manufacturing the protective shield of the invention, it should be generally sufficient to offer the protective shield in two sizes to fit the vast majority of children, youths and adults. However, specific sizes and dimensions may be used to build protective shields to suit special needs of individual patients.

Furthermore, in accordance with the present invention, an extra-oral portion 28 is provided to enable the patient or other care provider to place the protective dental shield 10 inside the mouth of the patient while the numbness continues and to remove the shield after the numbness wears off or otherwise as needed. As illustrated in FIGS. 1-4, in one embodiment of the invention, the extra-oral portion 28 extends from the biting portion 12 so that when the protective shield is placed in the patient's mouth, the extra-oral portion protrudes a short distance from the mouth. The extra-oral portion 28 which is made of the same planar material as the biting portion is curved to follow the contour of the mouth with a rounded outer end 28a to provide safety. The extra-oral portion illustrated in FIGS. 2 and 3 is provided with a round hole 28b near its outer end 28a. The hole 28b is provided to allow dental floss or other similar means to be inserted and looped therethrough to enable the patient or care provider to grab the dental floss and pull the protective shield from the patient's mouth, should it be accidentally swallowed.

In an alternative embodiment as illustrated in FIGS. 6-9, which is preferably used for children, the extra-oral portion 28 extends from one of the side walls 20 and curves away from the side wall so as to form a V-shaped side flap with the side wall. In this manner, the extra-oral portion 28 can remain against one side of the patient's cheek when the protective shield is placed inside the mouth and the corner of the side flap tied with floss, and cannot be accidentally swallowed.

In the embodiment of the invention illustrated in FIGS. 1-4, the extra-oral portion 28 is preferably integrally formed

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with the biting portion 12, but may alternatively be joined with the biting portion. Similarly, in the embodiment illustrated in FIGS. 6-9, the extra-oral portion is preferably integrally formed with one of the side walls 20, but may alternatively be joined with the side wall.

While the exemplary drawings illustrate a protective shield shaped for use in the sides of the patient's mouth, it is understood that the shape and measurements of the protective shield can be adjusted to fit the patient's front teeth should it be necessary to prevent accidental biting of soft tissue areas in the front area of the mouth. It is also understood that the specific shapes, sizes and thicknesses of the various portions of the protective shield of the invention can be modified and changed as long as it does not interfere with its effectiveness, safety and comfort to the patient.

From the foregoing, it will be appreciated that the present invention provides a means by which a flexible and resilient protective shield can be placed inside the mouth of the patient in the particular area of the mouth experiencing numbness or loss of control of the teeth to present a barrier between the patient's soft tissue areas of the cheeks, tongue and lips and the patient's occlusal and side surfaces of the teeth. Moreover, the present invention is provided with a flexible portion that extends beyond the patient's mouth to enable an easy, safe and hygienic placement and withdrawal of the protective shield into and out of the patient's mouth. The protective dental shield of the invention is also relatively easy and inexpensive to manufacture, and can be offered in several colors and standard (or special) sizes that can be used in any size or shape of teeth in all individuals.

While particular forms of the invention have been illustrated and described, it will be apparent that various modifications can be made without departing from the spirit and scope of the invention.

I claim:

1. A dental shield for protecting one side of a patient's mouth, comprising:

an elongated, resilient biting portion having first and second opposite planar sides and two laterally spaced apart side edges, said biting portion shaped for placement of said first and second opposite sides between occlusal surfaces of the patient's upper and lower teeth; and

a pair of generally planar side walls made from a resilient material for forming barriers adjacent to both lateral sides of the patient's upper and lower teeth to isolate the teeth from the soft tissue areas of the patient's mouth, each side wall projecting from said laterally spaced side edges of the biting portion away from said first and second opposite sides of said biting portion.

2. The dental shield according to claim 1, further comprising an extra-oral portion extending from said biting portion outside the patient's mouth.

3. The dental shield according to claim 1, further comprising an extra-oral portion extending from one of said side walls outside the patient's mouth.

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4. The dental shield according to claim 3, wherein said extra-oral portion forms a V-shaped side flap with said one of said side walls, so as to be positioned exteriorly against one side of the patient's cheek when the biting portion is placed within the patient's mouth.

5. The dental shield according to claim 4, wherein said extra-oral portion includes an aperture adjacent to its end opposite said one of said side walls.

6. The dental shield according to claim 1, wherein said biting portion and said side walls are integrally formed.

7. The dental shield according to claim 1, wherein said biting portion and said side walls are homogeneously formed.

8. The dental shield according to claim 1, wherein said side walls are trapezoidally shaped.

9. A dental shield for protecting one side of a patient's mouth, comprising:

a biting portion made of an elongated planar piece of resilient material, said biting portion having first and second opposite sides with two laterally spaced apart side edges, said biting portion shaped for placement of said first and second opposite sides between occlusal surfaces of the patient's upper and lower teeth;

a pair of side walls made from a resilient material for forming barriers on both lateral sides of the patient's upper and lower teeth to isolate the teeth from the soft tissue areas of the patient's mouth, each side wall projecting from said laterally spaced side edges of the biting portion towards said first and second opposite sides of said biting portion; and

an extra-oral portion extending from one of said side walls, wherein said extra-oral portion forms a V-shaped side flap with said one of said side walls, so as to be positioned exteriorly against one side of the patient's cheek when the biting portion is placed within the patient's mouth.

10. The dental shield according to claim 9, wherein said extra-oral portion includes an aperture adjacent to its end opposite said one of said side walls.

11. A dental shield for protecting one side of a patient's mouth, comprising:

a biting portion made of an elongated planar piece of resilient material, said biting portion having first and second opposite sides with two laterally spaced apart side edges, said biting portion shaped for placement of said first and second opposite sides between occlusal surfaces of the patient's upper and lower teeth;

a pair of side walls made from a resilient material for forming barriers on both lateral sides of the patient's upper and lower teeth to isolate the teeth from the soft tissue areas of the patient's mouth, each side wall projecting from said laterally spaced side edges of the biting portion towards said first and second opposite sides of said biting portion; and

an extra-oral portion extending from said biting portion.

* * * * *

Exhibit L



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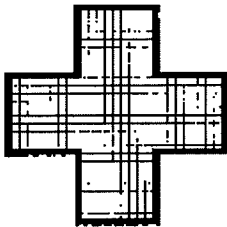
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LONSDALE

**Word Mark
Goods and
Services**

LONSDALE

IC 003. US 001 004 006 050 051 052. G & S: Soaps; non-medicated toiletries; cosmetics; finger towels impregnated with cleansing preparations for personal hygiene use; towels containing non-medicated toiletries; hair care products, namely, hair care lotions, hair styling gel, hair cleaning preparations, hair lacquers, hair shampoo, hair rinses, hair spray and hair waving lotions; skin care products, namely, non-medicated skin serum, skin cleansing cream, skin cleansing lotion and skin conditioners; bath lotions, deodorants for personal use, cleansers, namely, skin facial cleansers, moisturizers, namely, skin moisturizers, perfumery, gels for use on the hair, non-medicated toilet preparations; dentifrices, shampoos, nail care preparations, antiperspirants, depilatory preparations, shaving soaps, cosmetic preparation for tanning the skin; eau de cologne, disinfectant soaps, deodorant soaps, stain removers, toilet waters; shaving preparations, hair waving preparations, hair setting preparations; cleaning preparations for household purposes; shower preparations, namely, shower gels and shower creams; pre shaving and after shaving lotions; creams, namely, body creams, body powder; body care products, namely, body creams, body emulsions, body lotions, body milks, body oils, body powder and body sprays; beauty care products, namely, beauty creams, beauty gels, beauty lotions, beauty milks and beauty serums; coloring matters, tints and lotions, all for the hair and the beard, hair bleaching preparations; emery boards, emery paper, emery cloth all for nail grooming; dyestuffs for hair; antiperspirant soap; bath salts, not for medical purposes; boot cream; boot polish; cleansing milk for toilet purposes; cosmetic kits; cosmetics; essential oils for personal use; eye makeup; eyebrow cosmetics; eyebrow pencils; hair colorants; hair dyes, hair lotions; lotions for cosmetic purposes. makeup; makeup powder; makeup preparations; makeup removing preparations; beauty masks; medicated soap; nail polish; nail varnish; oils for cosmetic purposes; oils for perfumes and scents; perfumes; shaving preparations, namely, shaving balm and shaving cream; shaving soap; shoe cream; shoe polish; shoe wax; shoe care products, namely, shoe polish and shoe cream; sun tanning preparations; talcum powder; tissues impregnated with cosmetic lotions; nail varnish removing preparations

IC 005. US 006 018 044 046 051 052. G & S: Kits containing medical preparations for treatment of skin wounds; filled first aid boxes and kits; pharmaceutical preparations and substances for use in treatment of skin wounds; medicinal preparations and substances for use in treatment of skin wounds; drugs for medical purposes for use in treatment of skin wounds; naturopathic and homeopathic preparations and substances for use in treatment of sporting injuries; antiseptic preparations; analgesics; vitamin, mineral and protein preparations and substances, namely, mineral nutritional supplements, vitamin supplements, vitamin tablets, vitamin bars, vitamin drops, vitamin fortified beverages, protein supplements and protein tablets; dietary supplements in the form of mineral drinks; vitamin drinks; drinks predominantly of minerals or vitamins for use as dietary supplements; vitamin and dietary supplements; preparations for dietary use, namely, processed food adapted for medical purposes; dietetic substances adapted for medical use, namely, dietetic foods adapted for medical use, dietary supplemental drinks, dietary drink mix for use as a meal replacement and dietary food supplements; nutrients and nutriments in tablet or bar form for use as dietary supplements or meal replacement; food supplements; carbohydrates in liquid form; plant compounds and extracts for use as dietary supplements; bandages and dressings for skin wounds; disinfectants for hygiene purposes

IC 009. US 021 023 026 036 038. G & S: Telecommunication apparatus, namely, facsimile machines; telephones, mobile telephones, cordless telephones; telephone answering machines; pagers; apparatus for recording, transmission or reproduction of sound or images namely DVD players, DVD recorders, CD players and CD recorders; photographic apparatus and instruments, namely, digital cameras, lenses for cameras, straps for cameras and cases for cameras; cameras; exposed camera film; video cameras; camera lenses; camcorders; televisions; televisions for receiving satellite broadcasting; satellites and decoders; video apparatus and instruments, namely, video tape recorders and video tape players; video disc players; combined televisions and VCR; television aerials; antennas; transformers; surge protectors; remote control apparatus for authentication and identification to provide access control to computers; remote control apparatus for authentication and identification to provide access to a building or a room; remote control apparatus for televisions, computers, DVD recorders and players, CD recorders and players, video cassettes recorders and players, audio cassette recorders and players; radio receivers; radio cassettes for reproducing sounds; compact disc players; tape recorders; tape players; record players; graphic equalizers; head phones; speakers; loud speakers, earphone speakers, speaker cables; amplifiers; radios, radios incorporating clocks; karaoke machines, juke boxes; computers, lap-top and notebook computers, game computers; apparatus for use with computers, namely, printers, computer screens, mouse mats and modems. computer software for network management, for business management, for developing computer programs, for production process, for sales management, for customer relationship management, for database management, for order management, for use in business work automation, for financial management, for word processing, for spreadsheets, for schedule management, for e-mail, for Internet access and navigation, for wireless communications, for electronic paging, for providing electronic bulletin boards and information services; computer programs for document processing; computer programs for use in computer security; computer programs for use in the development of computer programs; computer programs for use in developing, executing and managing other computer programs, on computers, computer networks and global computer networks; computer programs for use in transferring information, and distributing and viewing other computer programs, on computers, computer networks and global computer networks; pre-recorded CD ROMs for use in desktop publishing, electronic publishing, printing, graphics and typesetting; pre-recorded CD ROMs used to generate and manage pages on global computer networks and other networks; pre-recorded CD ROMs for use in connection with the creation, editing, manipulation and printing of text, audio, graphics, animated graphics and full motion videos; CD ROMs, namely, blank CD ROMs; pre-recorded CD ROMs featuring entertainment and education relating to sports; pre-recorded CD ROMs featuring information on telecommunications services; pre-recorded CD ROMs featuring sports or providing instruction in sports; computer game software; pre-recorded magnetic tapes and discs, all recorded with computer programs for use in the management of businesses, for use in stock control and for providing information on sports events. pre-recorded magnetic discs and tapes, all for video games; games adapted for use with television receivers; audio and video tapes and discs, all in pre-recorded form and featuring sports events or providing tutorials or instruction in sports; blank tapes for tape recorders; pre-recorded cassettes, phonograph records and compact discs featuring sports events or providing tutorials or instruction in sports; pre-recorded cassettes, phonograph records and compact discs containing directory information in the nature of communication, telephone, personal, business and advertising information; pre-recorded cassettes, phonograph records and compact discs, all containing sporting events or providing information on sports; electronic game programs; scales; timers; encoded electronic chip cards for

identifying particular users of computers and mobile telephones; hologram apparatus; magnifying glasses; pedometers; periscopes; batteries, battery chargers, battery boxes; plugs namely electrical plugs; electric irons; electrically heated hair curlers; binoculars; eyewear, namely, monocles; spectacles; sunglasses; sports goggles; swimming goggles; frames and lenses for spectacles and sunglasses; cases for spectacles and sunglasses; chains and cords for spectacles and sunglasses; protective clothing, namely, jackets, overcoats, parkas, pants, shorts, trousers, sweaters and shirts; elbow pads, knee pads, shields and protectors for workers; protective helmets; sports helmets and visors; protective glasses, sunglasses and goggles; face shields; life belts, jackets and buoys; ear plugs; gloves, headgear and footwear for protection against accidents or injuries; eye protectors; crash helmets for cyclists; protective helmets for sport; electronic display apparatus for use with exercise equipment; software relating to sports for use in database management; cases for mobile telephones; cases for computers. parts and fittings for all the aforesaid goods

IC 014. US 002 027 028 050. G & S: Clocks and watches; sports watches; watch straps; mugs, tankards, trophies, and belt buckles, all being of precious metal; jewellery and imitation jewellery; time keeping instruments, namely, stop watches; alarm clocks; ashtrays of precious metal; badges of precious metal; boxes of precious metal for medals, badges, buttons, coins, bank notes, jewelry, sweets, timepieces and keys; bracelets; medals, badges of precious metal; candle rings of precious metal; candlesticks of precious metal; cases for clock and watch making; cases for watches; chains of precious metal; clock cases; clock hands; clocks incorporating radios; coffee pots non electric of precious metal; household containers of precious metal for medals, badges, buttons, coins, bank notes, jewelry, sweets, timepieces and keys; jewel cases of precious metal; key rings of precious metal; rings being jewelry; saucers of precious metal; cufflinks, tie clips, tie pins; watch bands; wrist watches; ornaments of precious metal; trinkets, namely, key chains; parts and fittings for all the aforesaid goods

IC 016. US 002 005 022 023 029 037 038 050. G & S: Stationery; pens, pencils, pencil cases, diaries, calendars, postcards, posters; first aid manuals; software in the form of printed matter relating to sports; books and magazines relating to sports including coaching and training manuals; books in the field of sports, gymnastics, business advice, licensing, instruction in use of computer software and history; printed matter, namely, press releases and posters featuring sports; pictures, posters, prints, graphic reproductions; writing implements, namely, crayons; printed cards, namely, cards bearing universal greetings, greeting cards, note cards, business cards, postcards; glues, namely, household and stationery glues; binders, binder materials, namely, binding materials for books and papers, binding strips, binder clips, book bindings, bookbinding materials, bookbinding tape, plastic pages for holding photographs and paper; greeting cards, ball pens, felt pens; nib pens, mechanical pencils; photographs, photograph albums; toilet tissues, toilet paper; rolls of paper, for use in the kitchen; serviettes, towels and wipes of paper; napkins and table cloths of paper; placemats of paper; paper tableware, namely, paper table linens; address books, binder note books, clear books, loose leaf books, note books, note books with wire binders, stock books for stock inventory, word note books, book ends, paint brushes, calendars, diaries, photograph holders; printed instructional and teaching material on sports and business management; sign pens, pen stands, pencil stands, photo stands; stickers; adhesive tapes for stationery or household purposes; periodicals in the fields of sports, gymnastics, business advice, licensing, instruction in use of computer software and history, magazines in the fields of sports, gymnastics, business advice, licensing, instruction in use of computer software and history; newspapers; transfers and decalcomanias, pen trays, pencil trays; manuals in the fields of business advice and licensing; wrappers, namely, wrapping paper; towels of paper; table liners of paper, face towels of paper; hygienic paper, paper handkerchiefs, writing paper; catalogues, brochures and leaflets in the fields of sports, gymnastics, business advice, licensing, instruction in use of computer software and history; coasters of paper; wrapping and packing materials, namely, paper for wrapping and packaging, plastic bags for packaging, paper bags for packaging, cardboard packaging; typewriting apparatus and instruments; cheque book holders

IC 018. US 001 002 003 022 041. G & S: Leather; skins and hides; cases for business cards, calling cards, credit cards, documents and keys; trunks, travelling bags, travelling cases, carry-on luggage, overnight luggage, bags for travel accessories, shoe bags for travel and garment bags; briefcases, document cases and portfolios; school bags and school satchels; haversacks, backpacks, rucksacks, knapsacks, handbags, shoulder bags, clutch bags, tote bags, sports bags, athletic bags, beach bags, leather shopping bags, record bags, belt bags, toilet bags; hip pouches; wallets, purses, pouches and key cases; baby and child carriers worn on the body; camping bags; frames for handbags, umbrellas or parasols; fastenings and straps of leather; umbrellas, golf

umbrellas, golf umbrella seats, parasols, canes and walking sticks; whips, harnesses and saddlery; baggage; articles of luggage, sports bags; straps for skates; parts and fittings for all the aforesaid goods

IC 021. US 002 013 023 029 030 033 040 050. G & S: Plates; cups; bowls and dishes; baskets for domestic use of wicker, straw, plastic, wood or cloth; trays for domestic purpose not of precious metal; works of art, namely, spun glass, souvenir plates, statues of china, statues of crystal, statues of earthenware, statues of porcelain and statues of glass; candle holders not of precious metal; watering cans; ice buckets; sculptures and statuettes of china, crystal, earthenware, glass, porcelain or terra cotta; glassware, namely, drinking glasses, glass bowls, glass boxes, glass dishes, glass carafes, glass mugs, glass storage jars and glass mosaics not for buildings; porcelain mugs; earthenware mugs; figurines made out of fibreglass, china, crystal, earthenware, glass or porcelain; miniature figures of china, crystal, earthenware, glass or porcelain; ornaments of china, crystal, earthenware, glass or porcelain; vases and urns; flower pots; kitchen and household utensils and containers, namely, spatulas, strainers, rolling pins and containers for food; tableware, namely, chopsticks and table place card holders not of precious metal; cooking utensils, namely, wire baskets, bakeware and baking dishes; jugs and drinking vessels; combs, sponges for household purposes; brushes for footwear; non-electric instruments and materials, all for cleaning, namely, electric toothbrushes, non-electric toothbrushes, brooms, cleaning cloths, window dusters, feather dusters, chamois, squeegees for household use, cleaning pads, cleaning rags, dusting brushes and cleaning sponges; non-electric kettles; trinket boxes of plastic; giftware articles and works of art, all made of bone china, china crystal, earthenware, glass, porcelain or terracotta, namely, figurines and sculptures, decorative articles made of glass, decorated china, chinaware, earthenware or porcelain, namely, decorative plates and candlesticks; cool bags; cool bags for fishing bait; parts and fittings for all the aforesaid goods

IC 024. US 042 050. G & S: Textile articles, namely, labels for clothing, competitors' numbers and linings for garments, textiles for the manufacture of clothing, textile wall hangings; linen and upholstery fabrics; bed linen, bed covers, bed clothes, bed spreads, quilt covers, duvet covers, sheets, pillow cases, pillow covers, quilts; duvets, eiderdowns, bath linen, towels, flannels, face towels, shower curtains; table linen, namely, coasters, napkins, place mats; table covers, table clothes, table mats not of paper, table napkins not of paper, napkins not of paper, coasters not of paper; kitchen towels, tea towels; curtains, curtain tie backs, textile curtain pelmets, handkerchiefs; upholstery fabrics; towels of textile

IC 025. US 022 039. G & S: Clothing, namely, shorts, shirts, sport shirts, undershirts, swimsuits, pullovers, sweaters, jumpers, smocks, salopettes, vests, underwear, long underwear, underpants, brassieres, garters, suspenders, socks, braces, waist bands, gloves, pants, jeans, waterproof jackets and pants, thermal jackets, pants, underwear, leggings, socks, sweat shirts, tops, fleece jackets, pullovers, shorts and vests, lightweight clothing for outdoor wear, namely, jackets, coats, anoraks, pullovers, athletic uniforms, beachwear, boxer shorts, shirts, t-shirts, camp shirts, tops, jackets, parkas, anoraks, overcoats, raincoats, rain suits, wind jackets, skirts, dresses, panties, briefs, track suits and warm-up suits; sportswear, namely, face masks, leg guards for hockey, goal keeping smocks for hockey, absorbent bands for wear on the wrists and heads; footwear; sports shoes; trainers, boots, walking boots, football boots, shoes, cycling shoes; headgear, namely, headbands, hats and caps; waterproof clothing, namely, waterproof jackets and pants; thermal clothing, namely, thermal socks and thermal underwear; sports clothing, namely, sports coats, sports shirts, sports jackets, sports jerseys, ski pants, ski suits, ski jackets, breeches for sports, sports over uniforms and sports shirts; trousers, shirts, t-shirts, cagoules and smocks; gloves; headgear, namely, hats, caps, berets and headbands; belts; expanding bands for holding sleeves; shoulder pads for clothing; Golf spikes

IC 026. US 037 039 040 042 050. G & S: Badges for wear, not of precious metal; zip fasteners for bags; expanding bands for holding sleeves; hair bands; belt clasps; bows for the hair; boxes, not of precious metal, for needles; fastenings for braces, namely, hooks and snap fasteners; braids; brooches in the nature of clothing accessories not of precious metal and not imitation jewelry; buckles for clothing; buttons for clothing; edgings for clothing; fastenings for clothing, namely, snap and slide fasteners; collar supports; competitors' numbers not of textile; cords for clothing; tea cosies; hair curlers non-electric; trouser clips for cyclists; heat adhesive patches for decoration of textile articles; elastic ribbons; embroidery; shoe fasteners, namely, shoe laces, shoe buckles and snap fasteners; frills for clothing; fringes; hair ornaments; hook and pile fastening tapes; shoe hooks; lace trimmings; letters and numerals for marking linen; monogram tabs for marking linen;

ornamental novelty badges; pin cushions; prize ribbons; elastic ribbons; haberdashery rosettes; shoe laces; shoe ornaments not of precious metal; snap fasteners; haberdashery tassels; thread of metal for embroidery; tinsel trimming for clothing; zippers

IC 028. US 022 023 038 050. G & S: Gymnastic and sporting articles and apparatus, namely, water polo balls, squash balls, shuttlecocks, golf balls, tennis balls, cricket balls, sports balls, ice hockey pucks, darts, tennis rackets, badminton rackets, squash rackets, grip bands for tennis rackets, grip bands for badminton rackets, grip bands for squash rackets, hockey sticks, lacrosse sticks, baseball bats, softball bats, cricket bats, strings for tennis rackets, strings for badminton rackets, strings for squash rackets, guts for tennis rackets, guts for badminton rackets, gut for squash rackets, guts for racket ball rackets, tennis nets, nets for ball games, nets for tennis, table tennis, cricket, badminton and volleyball, tables for table tennis, ball throwing machines, head covers for tennis rackets, head covers for badminton rackets, head covers for squash rackets, golf clubs, covers for golf clubs, golf grips, golf club head covers, golf bag covers, golf bag pegs, golf ball markers, golf flags, golf tees, golf tee markers, non-motorized golf carts, putting practice mats, tapes for wrapping tennis racket handle grips, tapes for wrapping squash racket handle grips, tapes for wrapping badminton racket handle grips, ice skates, kites, kite reels, targets, fencing gauntlets, discs for sports, billiard cues, billiard cue tips, skateboards, roller skates, ice skates, chest expanders, golf bags, tennis racket bags, badminton racket bags, squash racket bags, racket ball racket bags, hockey stick bags, frames for tennis rackets, frames for badminton rackets, frames for squash rackets, racket grips, cricket stumps, batting pads for cricket, wicket keeping pads for cricket, thigh guards, hockey balls, hockey stick bags, gloves for soccer and hockey, goal keeping leg guards for soccer and hockey, chest protectors, exercise weights, personal exercise mats, weight lifting belts and abdominal protectors; sporting articles for use in boxing, namely, boxing gloves, punching bags, punching balls and boxing bags; bags specially adapted for sports equipment; hand exercisers; balls for games and sports, namely, baseballs, basketballs, beach balls, billiard balls, bowling balls, cricket balls, field hockey balls, footballs, hand balls, lacrosse balls, netballs, paddle balls, playground balls, punching balls, racket balls, rubber balls, rugby balls, soccer balls, table tennis balls, volleyballs and stress relief balls for hand exercise; toys, namely, inflatable toys, plush toys, toy action figures, punching toys and mechanical action toys; games, namely, action skill games, action target games and party games; playing cards; souvenirs, namely, toy vehicles; balloons; computer games, namely, battery powered computer games with LCD screen which features animation and sound effects; kaleidoscopes; knee protectors for use when participating in sports; stationary exercise bicycles; sporting articles for wear adapted for use in specific sports, namely, hand wraps, body protectors for boxing, chest protectors for sports, jock straps, leg guards for athletic use, knee guards for athletic use, mouth guards for athletic use and mouth guards for boxing; skates; in-line skates; roller skates; hand exercisers other than for therapeutic use; hand held units for electronic games; playground equipment, namely, jungle gyms and climbing units; protectors for elbows and knees when riding bicycles; abdominal guards for sports use, mouth protectors, namely, **gum shields** for athletic use; parts and fittings for all the aforesaid goods

IC 030. US 046. G & S: Popcorn; processed oats, namely, husked oats; oat flakes; muesli; corn flakes; corn flour; corn meal; maize flakes; maize flour; maize meal; gluten for food; potato flour for food; soya flour; biscuits; malt biscuits; petit-beurre biscuits; cookies; edible decorations for cakes; cakes; tarts; petit fours; macaroons; bread, leaven ginger bread, bread rolls, buns, pastry, pastries, waffles, pancakes, pizzas, pastilles, pasta, ravioli, ribbon vermicelli, noodle vermicelli, spaghetti, macaroni, chocolate, chocolate based food beverages not being dairy based or vegetable based, chocolate food beverages with milk, cocoa, cocoa based food beverages, coffee beverages with milk, coffee flavourings; confectionery, namely, boiled sweets, chocolate, chocolate bars, chocolate candies, candy bars, fruit jellies, non-medicated lozenges, ready to eat cereal derived food bars, chewing gum and sugarless sweets; fondants, confectionery for decorating Christmas trees, sugar confectionery, stick liquorice, liquorice, non-medicated lozenges, candy caramels, candy for food, maltose, gum sweets, pralines, peppermint sweets, sugar, natural sweeteners, spices, allspice, curry ginger, cinnamon, cloves, seasonings, condiments, namely, spices, salt, cooking salt, celery salt, salt for preserving foodstuffs, pepper, seasoning peppers, mustard, aniseed, saffron, flavourings for food, vanilla substitute, vanillin, almond paste, essences for foodstuffs, namely, extracts used as food flavoring, starch for food, ice cream, edible ices, ice sherbets, ice sorbets, ice for refreshment, natural or artificial ice, glucose for food, golden syrup, honey, rice, sago, semolina, tapioca for food, turmeric for food, yeast, pies, meat pies, farinaceous foods pastes, groats for human food, puddings, sandwiches, sauces, ketchup, non-medical infusions, namely, tea and herbal infusions, vinegar, beer vinegar, salad dressings, mayonnaise

IC 032. US 045 046 048. G & S: Soft drinks, namely, carbonated soft drinks and non-carbonated soft drinks; beers; mineral and aerated waters; non-alcoholic drinks, namely, energy drinks, fruit drinks and fruit flavoured drinks; fruit drinks and fruit juices; syrups, essences and concentrates for making carbonated fruit or soft-drink beverages, non-carbonated beverages, soft drinks and fruit drinks; shandy, de-alcoholised fruit drinks, non-alcoholic beers and wines

IC 035. US 100 101 102. G & S: Business and management advice; business consultancy and business information services; compilation and provision of trade, business, price and statistical information and databases; advertising services, business administration, marketing and marketing planning; advisory and consultancy services relating to marketing, marketing assessment services; business planning and development, inventory control services, namely, stock control, scanning, tagging and security; setting up, organization, administration, operation and supervision of customer loyalty, sales, incentives and promotional activity schemes and advice, consultancy and information services relating to such services; business management, including assistance and advising for the establishment and management of retail stores; office functions; the bringing together for the benefit of others of a variety of goods enabling customers to conveniently view and purchase those goods in a department store, wholesale outlet, supermarket, discount retail park, retail shop and/or concession, via a television shopping channel or from a catalogue by mail order or by means of telecommunications or from an Internet website specializing in the marketing of general merchandise; provision of space on websites for advertising goods and services; business advisory services, promotional services and information services relating thereto; direct mail advertising; distribution of samples and promotional items; marketing services; business advisory and information services provided on-line from a computer database or the Internet; retail store services in the fields of cosmetics, toiletries depilatories, beverages, foods, food supplements, videos, cassettes, tapes, computer software, computer programs, books, magazines, jewelry, timepieces, textile articles, clothing, footwear, headgear, sports equipment and gymnastic equipment. arranging and conducting of conferences and congresses in the fields of business management and licensing

IC 041. US 100 101 107. G & S: Providing training, entertainment, sporting and cultural activities in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; providing sports facilities; providing recreation facilities; health club services, namely, providing instruction and equipment in the field of physical exercise; arranging and conducting of conferences and congresses in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics, and athletics; presentation of live performances in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; arranging and conducting of seminars and symposiums in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; rental of sports equipment; organizing of sporting competitions in the fields of boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics, video tape film production, rental of videos; arranging of sporting events in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; arranging of sports competitions in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; hire and rental of equipment for sports; information services relating to sport; instruction courses relating to sporting activities; instruction in sporting activities; organization of sporting competitions in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics. organization of sporting events in the fields of sports in general, boxing, wrestling, football, cricket, tennis, hockey, ice hockey, baseball, gymnastics and athletics; provision of sport facilities for sports in general; sports coaching; timing of sports events

**Standard
Characters
Claimed**

**Mark Drawing
Code** (4) STANDARD CHARACTER MARK

**Trademark
Search Facility
Classification
Code** SHAPES-MISC Miscellaneous shaped designs

Serial Number 76617390

Filing Date October 18, 2004
Current Filing Basis 44E
Original Filing Basis 1B;44D;44E
Published for Opposition August 4, 2009
Registration Number 3697340
Registration Date October 20, 2009
Owner (REGISTRANT) Lonsdale Sports Limited CORPORATION UNITED KINGDOM Grenville Court, Britwell Road Burnham Buckinghamshire UNITED KINGDOM SL1 8DF
Attorney of Record Robert W. Sacoff
Prior Registrations 2114483;2139320;3090883;3467803;AND OTHERS
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Current Search: S1: ("gum shields" or gumshields)[GS] docs: 26 occ: 26

	Serial Number	Reg. Number	Word Mark	Check Status	Live/Dead
1	79071994		METODO SILVETTI-COMBE	TARR	LIVE
2	79045393		OPROFIN	TARR	LIVE
3	79055663	3651339	OXYLANE	TARR	LIVE
4	79063577	3647904	ONE ROAD SO MANY WAYS	TARR	LIVE
5	79042400		OPROSHIELD	TARR	LIVE
6	79022869	3531103	GOLA	TARR	LIVE
7	79037389		SAMURAI SAM & THE QUEST FOR THE BROKEN SWORD	TARR	DEAD
8	79042132	3480913	REAKTSUN	TARR	LIVE
9	79021558	3233658	LUPOS	TARR	LIVE
10	78947024	3666837	INOV-8	TARR	LIVE
11	77524397		THE CELTIC FOOTBALL CLUB 1888	TARR	LIVE
12	77589125		LONSDALE	TARR	LIVE
13	77003713		D	TARR	LIVE
14	77190356		DR. BRUX	TARR	LIVE
15	77003808		D DUNLOP	TARR	LIVE
16	77003779		DUNLOP	TARR	LIVE
17	76617391			TARR	LIVE
18	76342829	2788036	DAN RHO	TARR	LIVE
19	76342826	2795593	DANRHO	TARR	LIVE
20	76617390	3697340	LONSDALE	TARR	LIVE
21	75907895	2531327	IRB WORLD SEVENS SERIES	TARR	DEAD
22	75863562	2875883	BLITZ	TARR	LIVE

23	75505505		HEART OF DARKNESS	TARR	DEAD
24	75402766	2915419		TARR	LIVE
25	75318385	2394537	EUROPEAN HOCKEY LEAGUE IIHF	TARR	DEAD
26	73663432		LONSDALE	TARR	DEAD

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Exhibit O



Discount Martial Arts Supplies & Equipment



Mouth Guards

Product 1/5
prev listing next

Double Gum Shield

\$6.99



For effective protection of upper and lower teeth. Integral breathing hole ensures efficient regulation of breathing. Only available in clear. Recommended for adults only. Set includes mouth guard, instructions and yellow case.

[larger image](#)

Model: KWON-4009700
Manufactured by: KWON

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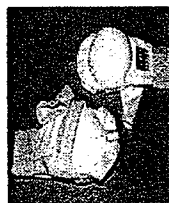
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This product was added to our catalog on Wednesday 20 June, 2007.

Customers who bought this product also purchased...



Belt - 100% Cotton, 1 3/4" wide



Tokaido Deluxe Fist Guards



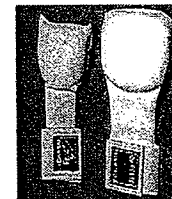
Tokaido Gi, Tournament Cut - Ultimate Heavyweight



Tokaido Gi, Traditional Cut - Ultimate Heavyweight



Sparmaster Kicks



Tokaido Fist Guards

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Discount Martial Arts Supplies & Equipment

myKarateStore.com
12071 Forest Way
Thornton, CO 80241

Have a question or suggestion? Looking for a certain product? Contact us via email at sales@mykaratestore.com, or use the form below to send a message.

Have a Shipping or Return related question? Please see [Shipping & Returns page](#).

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Exhibit P



The Smile Fairy Dental Spa
9010 Strada Stell Court #101
Naples, FL 34109
(239) 254-4480
information@thesmilefairy.com

A new and exciting approach to family dental care

Playsafe Mouthguards

Pressure-formed, multi-laminated Playsafe Mouthguards are prescribed for both professional and amateur athletes because they offer the highest level of protection. They have a competitive advantage over store bought boil-and-bite types because they are custom made to provide superior fit and retention to the patients unique oral structure. Playsafe is available in five levels of protection and many different color options for individuals or teams.

PLAYSAFE MOUTHGUARDS

Playsafe Patient Brochure



Keep that winning smile...

DAMAGED TEETH

It is often said that 'Prevention is better than cure' and this is especially true in the case of human teeth. Human teeth are the least capable part of the human body to repair themselves after an injury.

CONTACT SPORTS

Anyone that participates in a Contact Sport is vulnerable to a Dental Injury. Contact Sports include such sports as Football, Field Hockey, Kick Boxing, Ice Hockey, etc. In fact any sport where a player is likely to make contact with a hard object. The solution is to wear a Playsafe Custom Made Mouthguard.



ORTHODONTIC APPLIANCES

Many young sports players will be undergoing Orthodontic Treatment and wearing fixed or removable braces. They should wear a Playsafe Mouthguard if they participate in Contact Sports as a sudden impact to their face could otherwise result in the wire work of their braces lacerating the soft tissues of the inside of their lips and cheeks.



HISTORY OF MOUTHGUARDS

Boxing is thought to have been the first sport to use Gumshields or Tooth Guards as they were then called. The original Gumshield or Toothguard was no



Hor
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Opti
Pati
Fori
Loca
Den
Educa
Conta

more than a preformed rubber rim that fitted over the top teeth. Technology has improved since those early days of tooth protection and we are now able to make Playsafe Custom Made Sports Mouthguards that fit like a glove, are not bulky and allow easy speech.

PLAYSAFE MOUTHGUARDS AND CURRENT LEGISLATION

Mouthguards, (Gumshields or Toothguards) come under the PPE (Personal Protective Equipment) legislation. Manufacturers of Mouthguards/Gumshields and Toothguards must comply with this piece of legislation and demonstrate this by permanently sealing the CE mark in its recognizable form of black print on a white background within the Mouthguard, (Gumshield or Toothguard).

There are two types of Mouthguards (Gumshields or Toothguards) available:

BOIL AND BITE MOUTHGUARDS/GUMSHIELDS/TOOTHGUARDS

These are available in sports and chemist shops and may be placed in boiling water and then moulded to the tooth arch. However they tend to thin out in the very areas where protection is required and also be of a loose fit which during exertion may cause them to become dislodged and trapped in the sports players airway causing suffocation. Toothguard and Gumshield are very much the old fashioned name for Mouthguards. The word Gumshield was mainly used by Boxers and the word Toothguard was mainly used by dentists. Both these words Toothguard and Gumshield have been replaced by the word Mouthguard.



CUSTOM MADE SPORTS MOUTHGUARDS

These are the preferred type as they are Custom Made to moulds taken of the players upper and lower tooth arches by a dentist.

The Playsafe Mouthguard is a Hi-Tech Custom Made Sports Mouthguard which is made by using several layers of different plastics which are pressure laminated together like laminated glass so as to make a very impact absorbing mouthguard. For instance the Heavy Type Playsafe Mouthguard contains Resilient Energy Transmission Lines which are placed over the delicate areas of the biting surfaces of the teeth and will rebound and accelerate the transmission of the destructive energy away from the site of impact thus enhancing the mouthguards protection of the teeth.



So whatever Contact Sport you play always wear a Playsafe Mouthguard.

**PLAYSAFE
MOUTHGUARDS**

**The Power to
Prevent Injury**

invisalign

**The Invisible way to
Straighten your Teeth**

CEREC[®]

**One Visit Ceramic
Reconstruction**

ZOOM!

**Professional
Whitening System**

Dental Forms

(To protect your health, we have several forms that are necessary to complete before we can provide exceptional care. So that we start on time with your visit, please click [here](#) for forms, download them and complete them in the privacy of your own surroundings. We look forward to meeting you.)



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Sanitary mouth-to-mouth shield - Patent 4050457

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A **shield** for use in **mouth-to-mouth** or **mouth-to-nose** resuscitation. The **shield** is constructed of a one piece sheet of thin flexible material capable of ...

www.freepatentsonline.com/4050457.html

by SD Davidson - 1977 - Cited by 7 - Related articles - All 2 versions

Protective mouth shield - Patent 6802079

Oct 12, 2004 ... A **mouth** protector assembly comprising a grid-like **mouth** protector, defined by a top bar contoured to engage the area above the upper lip and ...

www.freepatentsonline.com/6802079.html

by D Bush - 2004 - Related articles - All 4 versions

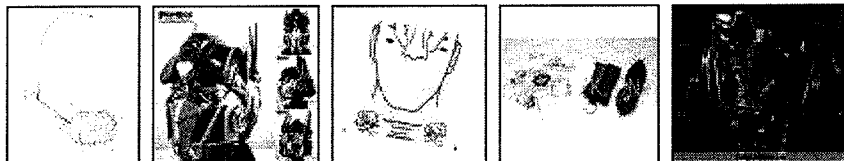
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CPR Face **Shield**, CPR Faceshield, CPR Supplies

Perform CPR and artificial resuscitation without the risk of ingesting harmful bacteria. Face **shield** features a one way valve and **mouth to mouth** barrier. ...

www.cpr-savers.com/Industrials/Cpr%20prod/Faceshield/faceshield.html

Image results for **Mouth shield** - Report images



mouth to mouth shield, mouth to mouth shield Manufacturers & Suppliers

Find a reliable & professional **mouth to mouth shield** manufacturer or supplier. Also exporters of wholesale **mouth to mouth shield**.

www.alibaba.com/showroom/Mouth_To_Mouth_Shield.html - Cached

Shield Charger Strapless Adult Mouth Guard - Dick's Sporting Goods

Sep 17, 2009 ... Dick's Sporting Goods: Buy **Shield** Charger Strapless Adult **Mouth** Guard - The **Shield**® Charger strapless adult **mouth** guard is designed to give ...

www.dickssportinggoods.com/product/index.jsp?productId... - Cached

Shield Mouth Guards - Shield Charger Adult Mouth Guard - Strapped ...

Protect your **mouth** while playing football, field hockey and lacrosse with the **Shield** Charger Adult **Mouth** Guard - Strapped. In just 12 seconds, ...

www.sportsunlimitedinc.com/shield-charger-adult-mouthguard-strapped-custom.html -

[Cached](#)

[Shield mouth guard - Shop sales, stores & prices at TheFind.com](#)

Shield mouth guard - 537 results from 233 stores, including **Shield Lip and Mouth Strapped Mouth Guard**, **Shield Lip and Mouth Strapped Mouth Guard**, **Shield Lip and Mouth Strapped Mouth Guard**, **Shield Lip ...**
www.thefind.com/sports/browse-shield-mouth-guard - [Cached](#)

[MOUTH SHIELD FOR MICROPHONES - Patent application - mouth shield ...](#)

A **mouth shield** (1) for a microphone headset (4) having a rigid arcuate frame which is attachable to the **mouth** piece holder (3) of a microphone headset (4) ...
www.faqs.org/patents/app/20080304690 - [Cached](#)

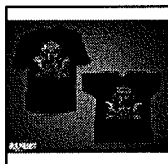
[Sanitary mouth-to-mouth shield - US Patent 4050457 Description](#)

Referring to the drawings, one embodiment of the **mouth-to-mouth shield** is shown in FIG. 1 and generally represented by reference number 10 and a second ...
www.patentstorm.us/patents/4050457/description.html

[Amazon.com: Shield Lip and Mouth Strapped Mouth Guard: Sports ...](#)

Amazon.com: **Shield Lip and Mouth Strapped Mouth Guard: Sports & Outdoors.**
www.amazon.com/Shield-Lip-Mouth-Strapped.../B000LHSVJO - [Cached](#)

[Shopping results for Mouth shield](#)



- Metal Mouth: Shield 408 T-Shirt Black w/ Silver Print**
\$9.99 new - [Rapbay.com / Urbanlife ...](#)
- Shield Lip and Mouth Strapped Mouth Guard**
\$2.99 new - [Sports Authority](#)
- Shield Lip and Mouth Strapped Mouth Guard**
\$2.99 new - [Dick's Sporting Goods](#)

Searches related to: Mouth shield

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Sanitary mouth-to-mouth shield - Patent 4050457

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www.freepatentsonline.com/4050457.html

by SD Davidson - 1977 - Cited by 7 - Related articles - All 2 versions

Protective mouth shield - Patent 6802079

Oct 12, 2004 ... A mouth protector assembly comprising a grid-like mouth protector, defined by a top bar contoured to engage the area above the upper lip and ...

www.freepatentsonline.com/6802079.html

by D Bush - 2004 - Related articles - All 4 versions

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mouth to **mouth shield**, mouth to **mouth shield** Manufacturers & Suppliers

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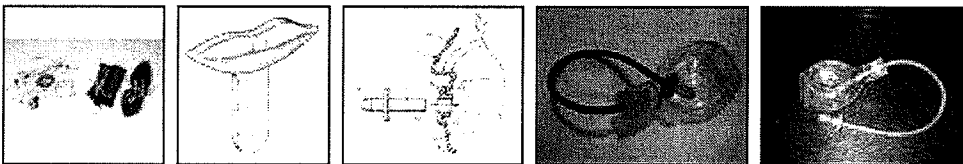
www.alibaba.com/showroom/Mouth_To_Mouth_Shield.html - Cached

Mouth to Mouth Mask,CPR mask,mouth to **mouth shield**,rescue face ...

Alibaba.com provides Mouth to Mouth Mask,CPR mask,mouth to **mouth shield**,rescue face shield,CPR, check Mouth to Mouth Mask,CPR mask,mouth to **mouth shield** ...

www.alibaba.com/product.../Mouth_to_Mouth_Mask_CPR_mask.html - Cached

Image results for "Mouth shield" - Report images



MOUTH SHIELD FOR MICROPHONES - Patent application - **mouth shield** ...

A **mouth shield** (1) for a microphone headset (4) having a rigid arcuate frame which is attachable to the mouth piece holder (3) of a microphone headset (4) ...

www.faqs.org/patents/app/20080304690 - Cached

Protective **mouth shield** - US Patent 6553569 Description

US Patent 6553569 - Protective **mouth shield**. US Patent Issued on April 29, 2003.

Estimated Patent Expiration Date: Icon_subject April 10, 2022Estimated ...

www.patentstorm.us/patents/6553569/description.html

Cpr Mouth Shield - Compare Prices, Reviews and Buy at NexTag ...

Cpr **Mouth Shield** - 13 results like the Adsafe CPR Face Shield w/ Keychain by ADC, Dynarex CPR Face Shield w/ One Way Valve - 100/Case, Adsafe CPR Face ...
www.nextag.com/cpr-mouth-shield/products-html - [Cached](#)

cpr mouth shield at AllHeart.com

cpr **mouth shield**: Adsafe™ CPR Face Shield Plus w/ Keychain by ADC ... cpr **mouth shield**: CPR Shield/Key Chain by NurseMates ...
search.allheart.com/?query=cpr+mouth+shield&c=y1 - [Cached](#)

White Plastic Box Mouth Shield Bite Guard Case New on eBay (end ...

Find White Plastic Box **Mouth Shield** Bite Guard Case New in Sporting Goods, Martial Arts , Training Equipment , Protective Gear category on eBay.co.uk.
cgi.ebay.co.uk/White-Plastic-Box-Mouth-Shield-Bite-Guard-Case-New_W0QQitemZ220497528113QQcmdZViewItemQQimsxq20091020?... - [Cached](#)

IPWatchdog.com - Obscure Patent of the Week

Oct 18, 2004 ... Protective **mouth shield** [HTML] US Patent No. 6782554. Issued October 12, 2004. This is not at all what you are thinking it is! ...
www.ipwatchdog.com/obscurepatents/obspat_10_18_04.html - [Cached](#)

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"Mouth shield"



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BetterShield Face Shield

www.medonyx.com Innovative and One Size Fits All Better Protection and Comfort

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by Paul Dundas - 2002 - Religion - 354 pages
... **'mouth-shield'** (square in shape for the ... **mouthshield**.
books.google.com/books?isbn=0415266068...

[PDF] MUNCHKIN MATERIAL LIST FOR WEB V.2 updated 11-19

File Format: PDF/Adobe Acrobat - [View as HTML](#)
Yes (**mouth shield** only) Polycarbonate, Silicone, Acrylonitrile Butadiene Styrene. Dora 2 Ring Pacifier Set. Yes (**mouth shield** only) Polycarbonate, Silicone ...
www.munchkin.com/media/pdf/bpa_products.pdf

MediRite Rebreath Mouth to Mouth Shield with Valve

Rebreath mouth to **mouth shield** with filter valve. For use in giving life-saving artificial respiration in all conditions, ...
www.medirite.co.uk/.../Rebreath_Mouth_to_Mouth_Shield_with_Filter_Valve.html - [Cached](#)

Metal Mouth: Shield 408 T-Shirt Black w/ White Print

Online Retailer of Rap CDs, Rap Clothing, Rap Downloads, Rap DVDs, Rap Posters, Rare Rap CDs, New Rap CDs Wide variety of Gangster Rappers.
shop.rapbay.com/index.php?p=product&id=7053...248... - [Cached](#)

Resusci-Guard Resuscitation Aid CPR Face Mouth Shield on eBay (end ...

Nov 10, 2009 ... Find Resusci-Guard Resuscitation Aid CPR Face **Mouth Shield** in Business, Office Industrial, Medical Lab Equipment , Medical Supplies ...
cgi.ebay.co.uk/Resusci-Guard-Resuscitation-Aid-CPR-Face-Mouth-Shield--_W0QQitemZ400055496115QQcmdZViewItemQQimsxq20091110?... - [Cached](#)

Protective mouth shield - US Patent 6802079 Claims

US Patent 6802079 - Protective **mouth shield** ... Issued on: 11/21/2000. Inventor: Herrin6553569Protective **mouth shield**. Issued on: 04/29/2003. Inventor: Bush ...

www.patentstorm.us/patents/6802079/claims.html

CPR MOUTH SHIELD - LOW PRICE! Philippines - 1227482

20 posts - 13 authors

CPR, **mouth shield**, mask - Water Sports Quezon City Metro Manila mouth guard, cpr mask one way valve, **mouth shield**, philippine mouth prices, mouth Piece, ...
www.sulit.com.ph/index.php/.../CPR+MOUTH+SHIELD+--+LOW+PRICE!

(WO/2009/106290) COMFORTER WITH A TEAT PART FIXED TO A MOUTH SHIELD

(EN) Comforter with a **mouth shield**, and with a hollow teat part which is fixed tightly in an opening of the **mouth shield** with the aid of an insert piece and ...

www.wipo.int/pctdb/en/wo.jsp?WO=2009106290 - [Cached](#)
by G MARR - 2009

Snoring Aids

It may be advisable to try a **mouth shield** which is moulded at home to ensure that the snorer is able to sleep wearing a **mouth shield** throughout the night. ...
whydopeoplesnore.com/snoring-aids.html - [Cached](#)

CPR Face Shield Key Chain Ring - China CPR face shield key chain ...

Key words for searching this product: Mouth to Mouth Mask, CPR mask, mouth to **mouth shield**, rescue face shield, CPR and so on. ...

huanglianggui.en.made-in-china.com/.../China-CPR-Face-Shield-Key-Chain-Ring.html - [Cached](#)

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Good news about the CPR Mouth Shield. My State Rep. said he WOULD ...

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MSCDirect.com

Face Shield Suppliers
Contact Top Prequalified Suppliers on Alibaba.com - Top B2B Directory!
Alibaba.com

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Apr 24, 2006 ... I'm from Georgia. Maybe you guys who care about this could contact ... Glad to hear it. I carry a shield in my car, and another tiny one on my ...
answers.yahoo.com/question/index?qid=1006051023801

6448 CPR RESCUE KIT W/ MOUTH SHIELD :: Treatment Supplies ...
MedicatedDistrUbution.com offers over 40000 high quality supply and equipment products to professionals in the chiropractic, physical therapy, ...
www.medicateddistrubution.com/6448-cpr-rescue-kit-w-mouth-shield-p.html - [Cached](#)

Farla Medical: Consumables > Gowns & Protective Wear > Rescu Aid ...
Rescu Aid **Mouth Shield**. ... Rescu Aid **Mouth Shield**. Rescu Aid **Mouth Shield**. Model Number: K347. Price: £2.25. inc. VAT: £2.59. Quantity: ...
www.appkeeper.com/category_Gowns.../Rescu-Aid-Mouth-Shield/ - [Cached](#)

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MOUTH SHIELD with LONG BREATHING RESTRICTION PIPE (Screw. On). BH BOE19/1 ... **MOUTH SHIELD** with BREATH THROUGH BLOW-UP GAG & PUMP. BH C1. CURVED CREST. ...
skullandbones.se/Masker_tillval_lista.pdf

Shield Women's Self Defense & Personal Safety, Los Angeles
Strictly through word-of-mouth, **SHIELD** Women's Self-Defense training has been widely accepted and requested by various groups of women. From April to ...
www.shieldselfdefense.com/ - [Cached](#)

CPR RESCUE KIT W/ MOUTH SHIELD, GLOVE HAND | Item #: PRE104 ...
WIPE, LATEX WestMedics.com is a Reliable Partner for Medical Supplies ad Industry-Leading Services.

www.westmedics.com/product.php?...mouth-shield... - [Cached](#)

[marijuana acne: Cpr mouth shield](#)

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marijuanaacneu.wikidot.com/cpr-mouth-shield - [Cached](#)

[Mouth to Mouth Mask,CPR mask,mouth to mouth shield,rescue face ...](#)

Product information for Mouth to Mouth Mask,CPR mask,mouth to **mouth shield**,rescue face shield,CPR from Pro-Health Product Ltd.. Source what you need here!
prohealth.en.alibaba.com/.../Mouth_to_Mouth_Mask_CPR_mask_mouth_to_mouth_shield_rescue_face_shield_CPR.html - [Cached](#)

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related:cpr face shield,cpr **mouth shield**,cpr barrier mask,leather cpr,cpr barrier,cpr ... Blue Purple Teal Sterile, disposable **mouth shield** Patented one-way ...
www.nextag.com/cpr-and-shield/stores-html - [Cached](#)

[Shock Doctor Mouth Guard V2.0 Max Pink, Gum Shield](#)

Samurai Absorber **Mouth Shield** White. Samurai Absorber **Mouth Shield** Collection. From £9.99 (inc VAT). Shock Doctor. Shock Doctor Mouthguard V2.0 Max Green ...
www.prodirectrugby.com/prodinfo.asp?PID=PDR-009-070...9 - [Cached](#)

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"Mouth shield"



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Phylogeny and evolution of the Mollusca - Google Books Result

by W. F. Ponder, David R. Lindberg - 2008 - Science - 469 pages
... with only three or four families recognized, which are based on characters of the rad- ula, **mouth-shield**, and body shape (Salvini-Plawen 1975, ...
books.google.com/books?isbn=0520250923...

Pacifier - Wikipedia, the free encyclopedia

In its standard appearance it has a teat, **mouth shield**, and handle. The **mouth shield** and/or the handle is large enough to avoid the danger of the child ...
en.wikipedia.org/wiki/Pacifiers - [Cached](#)

CLINICAL TRIAL

The fact that only 2 of the 77 participants rejected the **mouth shield** outright speaks well of the acceptability of the device. The group who were judged to ...
www.somni.com/index.php?option=com_content... - [Cached](#)

Electronic Gazette

A pacifier comprising a **mouth shield** having a nipple projecting forwardly of said **mouth shield**, a U-shaped handle pivotably connected to the rear portion of ...
patents.ipophil.gov.ph/.../EG_RecordDetails.asp?... - [Cached](#)

BREATHING MOUTHPIECE MANUFACTURED BY XIAMEN CELLCORP TRAVELLING ...

715-358-2329 / 715-358-2329, CPR RESPONDER KEYCHAIN · CPR **MOUTH SHIELD** WITH KEYCHAIN. 4, A-M SYSTEMS, INC. 131 BUSINESS PARK LOOP P.O. BOX 850 ...
www.zapconnect.com/products/index.../3005442933.html - [Cached](#)

Mouth moisturizing device - Patents like 4917674

6553569: Protective **mouth shield** - A mouth protector assembly comprising a grid mouth protector, defined by a top bar contoured to engage the area above the ...
www.patentsurf.net/4,917,674 - [Cached](#)

attack blonde hair braid breasts facesitting maasan open **mouth** ...

See, why do people keep using Voldo for situations like these? Especially when there are characters like Taki, Ivy, and Setsuka just waiting to get pounced ...
danbooru.donmai.us/.../attack-blonde_hair-braid-breasts-maasan-shield-sid - [Cached](#)

Devices@FDA

Device Classification Name, high pressure liquid chromatography, codeine. 510(k) Number, K832590. Device Name, MOUTH-TO-MOUTH **SHIELD** APPLICATOR. Applicant ...
www.accessdata.fda.gov/scripts/cdrh/devicesatfda/index.cfm?... - [Cached](#)

A **mouth-shield** for use with the bronchoscope or laryngoscope.

1: Br Med J. 1948 Sep 18;2(4576):571. A **mouth-shield** for use with the bronchoscope or laryngoscope. HALLAM J. PMID: 18882990 [PubMed - OLDMEDLINE]
www.ncbi.nlm.nih.gov/pubmed/18882990
by J HALLAM - 1948

Amazon.com: ADC ADSAFE Face Shield Plus with Keychain, Adult ...

Check a corresponding box or enter your own tags in the field below. emt(6). masks(6). cpr (6). cpr mask(5). first aid(5). **mouth shield(4)** ...
www.amazon.com/ADC-ADSAFE-Shield.../dp/B0011MIQX4 - [Cached](#)

Searches related to: **"Mouth shield"**

[cpr mouth shield](#) [intellectual property shield](#) [shield mouth guards](#)

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"Mouth shield"



Advanced Search

Web Show options...

Results 41 - 50 of about 27,900 for "Mouth shield". (0.15 seconds)

mouth to mouth Products, mouth to mouth Manufacturers & Quality ...

nokia n chafing dish mouth to **mouth shield** mouth to mouth resuscitator mouth to mouth mask mouth to mouth apparatus easy to use cut to size cut to sizes ...
www.himfr.com/buy-mouth_to_mouth/ - [Cached](#)

Somni Snore Guard - stop snoring

The Somni Snore Guard is not a mandibular advancement device - it is a **mouth shield/guard** which fits comfortably in the mouth to prevent open mouth ...
www.traztech.com.au/programs/product/v_product.asp?P... - [Cached](#)

doryoku - youth **mouth shield** strapless

description for youth **mouth shield** strapless. Youth is the period between childhood and adulthood, described as the period of physical and psychological ...
doryoku.org/site/topic/10237061 - [Cached](#)

doryoku - youth **mouth shield**

youth **mouth shield**. ... description for youth **mouth shield**. "The Shield of Heracles" ("Aspis Hērakleous") is a fragment of Greek epic, of 481 lines of ...
doryoku.org/site/topic/10237060 - [Cached](#)

Superdrug Tooth Whitening Wand - Review - Superdrug Tooth ...

After I took the **mouth shield** out, I washed it and brushed my teeth. ... I felt the **mouth shield** started to slightly ache my jaw coming up to the end of the ...
www.dooyoo.co.uk/body-care/superdrug-tooth...wand/1087961/ - [Cached](#)

Mouth keychain - Shop sales, stores & prices at TheFind.com

CPR Shield/Key Chain by NurseMates CPR Shield/Key Chain by NurseMates Blue Sterile, disposable **mouth shield** Patented one-way breathing valve Contained in ...
www.thefind.com/family/info-mouth-keychain - [Cached](#)

gum shield | Compare Boxing & Martial Arts Prices & Info - Kelkoo

Adult Gum **Mouth Shield** Guard Protection Single Wth Case. Availability: In stock.
eBay.co.uk Store info; £9.99 (inc P&P: £2) Visit Store ...
shopping.kelkoo.co.uk/ssc-166201-gum-shield.html - [Cached](#)

[PDF] These kits are available in easily identifiable and marked, Heavy ...

File Format: PDF/Adobe Acrobat - [View as HTML](#)
CPR - use **Mouth shield**/mask. Dislocation - use Triangular bandage, safety pins/ ... CPR **Mouth Shield**. Butterfly Adhesive plaster. Knuckle Adhesive plaster ...
www.neatkids.co.nz/FirstAidKit-Outdoors.pdf

MOUTH SHIELD - Google Patent Search

MOUTH SHIELD. Louis L. Greenblum. Abstract. > Overview Abstract · Drawing · Description · Claims. Patent number: 2800898. Filing date: Dec 7, 1955 ...
news.google.com/patents/about?id=hTBgAAAAEBAJ

mouth guard success

The **mouth shield** is made from quite firm plastic and I am having trouble with my front lower teeth and gums and I'm sure that my actions aren't helping them ...

www.britishsnoring.co.uk/phpBB2/viewtopic.php?f=1&t=383 - [Cached](#)

Searches related to: **"Mouth shield"**

[cpr mouth shield](#)

[intellectual property shield](#)

[shield mouth guards](#)

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"Mouth shield"



Advanced Search

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Results 51 - 60 of about 27,900 for "Mouth shield". (0.14 seconds)

Celebrity Big Brother: Ulrika Jonsson wears a mouth shield at ...

Jan 5, 2009 ... SHOOTING Star Jonsson wears mouthpiece to stop teeth from grinding.
www.thesun.co.uk/sol/homepage/showbiz/big.../article2095741.ece

Pacifier: Facts, Discussion Forum, and Encyclopedia Article

mouth shield, and handle. The **mouth shield** and/or the handle is large enough to avoid the danger of the child choking. Choking ...
www.absoluteastronomy.com/topics/Pacifier - [Cached](#)

[PDF] CHOOSING A PACIFIER TO SUPPORT NORMAL DEVELOPMENT BY WELMA LUBBE ...

File Format: PDF/Adobe Acrobat - [View as HTML](#)
The pacifier should furthermore have a big, soft **mouth shield** to stimulate and wake up all the nerve endings around the mouth and help with lip closure. ...
www.littlesteps.co.za/.../887CHOOSING%20A%20PACIFIER%20TO%20SUPPORT%20DEVELOP...

Mouth Shield Rugby

Bookmark This Page | Make My Home Page. **Mouth Shield Rugby** ...
www.musaic.org.uk/dance/mouth_shield_rugby.html - [Cached](#)

CPR mask - Compare prices for new and used products

Resusci-Guard Resuscitation Aid CPR Face **Mouth Shield**. CPR mask. £0.99. Go to shop.
Zoom. CPR Resuscitation Face Shield in Keyring. CPR mask ...
www.twenga.co.uk/dir-Health-Beauty,First-aid,CPR-mask - [Cached](#)

Stop Teeth Grinding (Bruxism) At Night - Dental Health Magazine

If your bruxism is caused by an abnormal bite, you may have to wear a **mouth shield** to prevent your teeth from knocking together. Over time, this **mouth** ...
worldental.org/teeth/stop-teeth-grinding-night/ - [Cached](#)

Superdrug Tooth Whitening Wand - Review - Superdrug Tooth Whitening

Dec 14, 2007 ... After I took the **mouth shield** out, I washed it and brushed my teeth. ... I felt the **mouth shield** started to slightly ache my jaw coming up ...
www.ciao.co.uk/Superdrug_Tooth_Whitening_Wand__Review_5722760 - [Cached](#)

Dental appliances in the treatment of snoring. A comparison ...

The results suggest that the activator has a satisfactory tolerance and effect on snoring, while the soft-palate lifter and the **mouth-shield** are ineffective ...
www.websciences.org/cfemplate/NAPS/archives/indiv.cfm?ID... - [Cached](#)
by M MARKLUND - [Cited by 10](#) - [Related articles](#) - [All 3 versions](#)

Dry Mouth While Sleeping | LIVESTRONG.COM

Today's pacifiers are made with a **mouth shield** and a handle designed to prevent babies from swallowing them. Many pediatricians feel that pacifiers help ...
www.livestrong.com/dry-mouth-while-sleeping/ - [Cached](#)

Epinions.com - Search Results: cpr barriers

Cpr Barrier Mouth To **Mouth Shield** Mask With Valve Case. eBay offers you smart deals

and the widest selection, ranging from the everyday basics to things ...
www.epinions.com/t-cpr-barriers - [Cached](#)

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"Mouth shield"



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Results 61 - 70 of about 27,900 for "Mouth shield". (0.18 seconds)

Could I Have a Mouth Hole for Eatin' Stuff?: Oct. 29-Nov. 4 ...

Nov 7, 2001 ... On Sunday, the strip veers into pure slapstick, as Dr. P's dental assistant cuts away a patient's rubber **mouth shield**, accidentally taking a ...
www.citypaper.com/comics/story.asp?id=5253 - [Cached](#)

Medicine for the Outdoors: The Essential Guide to Emergency ... - Google Books Result

by Paul S. Auerbach - 2003 - Sports & Recreation - 544 pages
If you have a barrier (pocket mask or **mouth shield**) to prevent transmission of infectious diseases, use it as directed. An improvised barrier shield for ...
books.google.com/books?isbn=1585747882...

Latest Transformers Trailer is out!

Optimus Prime's head without the mouth sheild, Optimus Prime's head with partial mouth sheild, Optimus Prime's head with the **mouth shield** ...
ekle.us/index.php/2007/05/latest_transformers_trailer_is_out - [Cached](#)

NUK Babyartikel - Soothers

When sucking on the soother, the **mouth shield** of an "active" NUK Soother is ... Don't worry, as the baglet and **mouth shield** are mounted so that they are ...
www.nuk.de/service/faq-beruhigungssauger/soothers.html?lang... - [Cached](#)

Tough mothers save a life on Hood to Coast

Aug 30, 2007 ... "I wasn't really even thinking about the fact that I didn't have a **mouth shield**," Cassebarth said. Eventually, someone handed her a **mouth** ...
www.sandypost.com/news/story.php?story_id... - [Cached](#)

How to Perform CPR correctly and save a life | eHow.com

Jul 10, 2009 ... Hard surface to place patient on; **mouth shield** ... Use a **mouth shield** to prevent direct mouth to mouth contact. This also protects you ...
www.ehow.com/how_5168825_perform-cpr-correctly-save-life.html - [Cached](#)

Dummies and pacifiers

Today, dummies are a standard silicone or rubber teat, with a plastic or silicone **mouth shield** and handle. Latex dummies are softer and more flexible than ...
arabiaenglish.babycenter.com/baby/caring.../dummies-and-pacifiers/ - [Cached](#)

Search for nuk soother Prices - Ordered by Price (Low - High ...

The **mouth shield** is anatomically shaped to fit baby's face optimally. ... As the ring folds flush with the **mouth shield**, pressure points are prevented when ...
www.jump.co.za/search/nuk+soother/order__p/ - [Cached](#)

ProGuards.co.uk - AboutUs Wiki Page

Custom Fitted Dental Fangs Gum Gum Protection Gum Shield Hockey Jockeys Lacrosse Martial Arts Mouth Mouth Guard Mouth Protection **Mouth Shield** Mouthguards ...
www.aboutus.org/ProGuards.co.uk - [Cached](#)

Best pacifiers for babies

These pacifiers are unique because they have a cool **mouth shield** that automatically pops

closed as they hit the floor - which pacifiers have a magnetic-like ...
www.examiner.com/x-608-Early-Childhood-Parenting-Examiner~y2009m8d19-Best-pacifiers-for-babies - [Cached](#)

Searches related to: **"Mouth shield"**

[cpr mouth shield](#) [intellectual property shield](#) [shield mouth guards](#)

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"Mouth shield"



Advanced Search

Web Show options...

Results 71 - 80 of about 27,900 for "Mouth shield". (0.24 seconds)

Antarctic Invertebrates: Toporkovia antarctica

Disk closely granulated, except **mouth-shield**; 5 or 6 grains in the length of 1 mm. ...
Genital openings long, extending from outer corners of **mouth-shield** ...
antiz.redmon.com/taxon_view.cfm?taxon=6219 - [Cached](#)

Brevard Achievement Center

Be prepared with our **mouth shield** key-chain container that contains one ... Our **mouth shield** holster contains one CPR microshield and one pair latex gloves. ...
www.bacbrevard.com/product.html - [Cached](#)

max air nasal dilators | stop snoring dilators| breathe mate ...

Breathe-mate is a mandibular advancement device - it is also a **mouth shield**/guard which fits comfortably in the mouth to prevent open mouth breathing ...
www.breathe-ezy.net/ - [Cached](#)

Full text of "Illustrated catalogue of the Museum of Comparative ...

The first joint outside the **mouth-shield** has two or three spines on each side ... From outer side of **mouth-shield** to outer corner of opposite mouth-slit, ...
www.archive.org/stream/.../illustratedcatal06harv_djvu.txt - [Cached](#)

Pacifier holder - Patent application - is disclosed having a ...

The term "pacifier" expressly includes any nipple-shaped protrusion having a **mouth shield**, a base, or a handle end. A pacifier has an oral end, ...
www.faqs.org/patents/app/20090270010 - [Cached](#)

[PDF] Material Safety Data Sheet

File Format: PDF/Adobe Acrobat
Aug 10, 2009 ... Avoid mouth-to-mouth contact by using a **mouth shield** or guard to perform artificial respiration. First Aid: Ingestion ...
www.novachem.com/productservices/.../EthyleneGasDilute_MSDS_EN.pdf
by N Chemicals - [Related articles](#) - [All 3 versions](#)

[PDF] H1N1 Influenza Support Products

File Format: PDF/Adobe Acrobat - [View as HTML](#)
gloves, one combination face-and-eye shield, one mouth-to-**mouth shield**, two towelettes, and one biohazard disposal bag with tie. Forest Service Spec ...
https://www.gsaadvantage.gov/images/advrewrite/H1N1FLUPDFv2.pdf

[PDF] GSA GLOBAL SUPPLY

File Format: PDF/Adobe Acrobat - [View as HTML](#)
to-**mouth shield**, two towelettes, and one biohazard disposal bag with tie. Forest. Service Spec 6170-15. (NFES #0640). NSN 6515-01-376-7247. Price \$22.97 KT ...
apps.fas.gsa.gov/pub/mtips/nov_dec04/NovDec04_08.pdf

Nuk > Baby Care - PriceCheck Shopping South Africa

Features: The **mouth shield** is anatomically shaped to fit baby's face optimally.As the ring folds flush with the **mouth shield**, pressure...read more ...
www.pricecheck.co.za/categories/ff/331/Baby+Care/b/b/.../DESC/ - [Cached](#)

Glow Stick Mouth Guard Products, Glow Stick Mouth Guard ...

Chemical Glow Stickmouth to mouth resuscitatormouth to **mouth shield**mouth to mouth maskfiber optic glow stickcss glow dream glow4 inch glow stickmouth to ...
www.himfr.com/buy-Glow_Stick_Mouth_Guard/ - [Cached](#)

Searches related to: "Mouth shield"

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"Mouth shield"



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Results 81 - 90 of about 27,900 for "Mouth shield". (0.27 seconds)

[\[doc\] CPR Masks **All masks come with disposable gloves and antiseptic ...](#)

File Format: Microsoft Word - [View as HTML](#)

Shield has hard plastic **mouth Shield** inflates and covers thin sheet-like barrier with. piece to fit inside victim's mouth mouth and nose illustration for ...
hccarc.redcross.org/CPR%20Products.doc

[gum shield | Compare Prices & Info - Kelkoo](#)

Adult Gum **Mouth Shield** Guard Protection Single Wth Case. Availability: In stock.
eBay.co.uk Store info; £9.99 (inc P&P: £2) Visit Store ...
shopping.kelkoo.co.uk/ss-gum-shield.html - [Cached](#)

[Administrative procedure #16](#)

13) Staff are discouraged from performing mouth-to-mouth resuscitation without a CPR Micro Shield (**mouth shield** for performing mouth-to-mouth resuscitation) ...
dcfswebresource.dcfs.illinois.gov/procedures/.../homepage.phtml?... - [Cached](#)

[Pacifier: Encyclopedia II - Pacifier - History](#)

While pacifiers have taken on a general standard appearance (teat, **mouth shield**, and handle) they can be anything that the baby can suck on for comfort. ...
www.experiencefestival.com/a/Pacifier_-_History/id/1828399 - [Cached](#)

[avoid aero toxic syndrome with Anti viral travel filters](#)

Breathe-mate is a mandibular advancement device - it is also a **mouth shield/guard** which fits comfortably in the mouth to prevent open mouth breathing. ...
www.breathe-ezy.biz/shopping/pgm-more_information.php?id=13 - [Cached](#)

[Compare Cpr Barrier Mouth To Mouth Shield Mask With Valve Case ...](#)

Discover sale prices and lowest shipping deals on Cpr Barrier Mouth To **Mouth Shield** Mask With Valve Case. Related Products: Cpr Microkey Mouth BarrierEach, ...
www.mysimon.com/.../cpr-barrier-mouth-to-mouth-shield-mask-with-valve-case - [Cached](#)

[Face Masks Health Aids - Find great deals, lowest prices, and buy ...](#)

Cpr Barrier Mouth To **Mouth Shield** Mask With Valve Case. eBay. (In stock). Your browser does not support JavaScript. To view this page, enable JavaScript ...
www.shopping.com/xCC-face_mask_shield--face_masks - [Cached](#)

[Groin Junior - Forums & Discussions](#)

"font-family: Trebuchet MS,...gum **mouth shield** guard protection safety single sided gum **mouth shield** guard protection safety. ...
omgili.com/groin-junior - [Cached](#)

[Adult Tonsil removal \(tonsilectomy\)](#)

20 posts - 8 authors - Last post: Apr 3, 2005
I did not have any stitches after and maybe that is why I had to wear the **mouth shield**. I will tell you this tho my mouth felt really tender ...
www.skincell.org/community/index.php?topic=19004.20 - [Cached](#) - [Similar](#)

[Metal Mouth: Bear Claw Nor Cali - Mexican Pride T-Shirt White](#)

Metal **Mouth: Shield** 415 T-Shirt Black w/ Red Print Product ID : 7122 ... Metal **Mouth:**

Shield 650 T-Shirt White w/ Orange Print Product ID : 7132 ...
shop.rapbay.com/.../Metal_Mouth_Bear_Claw_Nor_Cali_Mexican_Pride_T_Shirt_White-8894-248.html - [Cached](#)

Searches related to: **"Mouth shield"**

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"Mouth shield"



Advanced Search

Web Show options...

Results 91 - 100 of about 27,900 for "Mouth shield". (0.26 seconds)

AbilityOneCatalog

Each set contains one (1) pair of latex gloves, one (1) combination face and eye shield, one (1) mouth-to-mouth shield, two (2) towelettes, ...
www.jwodcatalog.com/products.aspx?sid=65 - [Cached](#)

Pacifiers

Today, pacifiers are a standard silicone or rubber teat, with a plastic or silicone **mouth shield** and handle. Latex pacifiers are softer and more flexible ...
www.babycenter.com.sg/baby/dailycare/dummies&pacifiers/ - [Cached](#)

Freshjive - Rot Mouth (White) - Tees

toddlerplacestore.com · Go to Store · Metal **Mouth: Shield** 650 T-Shirt White w/ Orange Print ... Metal **Mouth: Shield** 408 T-Shirt Black w/ White Print ...
www.shopwiki.com/Freshjive+-+Rot+Mouth+(White)+-+Tees - [Cached](#)

[PDF] The Kidz-Med™ Medicine Dispenser is the only medicine pacifier ...

File Format: PDF/Adobe Acrobat - [View as HTML](#)
n Polypropylene **mouth shield** and ... reservoir behind the **mouth shield**, gently pulling all the way up. 2 . Pour the correct amount of ...
www.kidzmed.com/pdfs/medicine-dispenser-sellsheet.pdf

What your gear choices say about you | WhyBike? Motorcycle Blog

I carry a first aid kit (including a CPR **mouth shield**) in both of my cars and on my bike. I always want to be in the position to act, without fear, ...
www.whybike.com/blog/index.php?p=138 - [Cached](#)

Browse

Each kit bag contains: 3 pairs of non-sterile latex gloves (individually sealed in polybags), 6 antiseptic wipes, and 1 CPR **mouth shield** (for use by CPR ...
secure.imarcsgroup.com/respect/renderpage.asp?pageid=271... - [Cached](#)

The Lord of The Rings: The Return of The King GBA Cheats

With Aragorn, I found it easiest to use the power that allows you to summon the dead to kill off the **Mouth's shield** minions, and then use the knife throw ...
www.neoseeker.com/Games/cheats/GBA/lotr_returnking.html - [Cached](#)

Guest Review - Transformers Collection - Perceptor

The face is your basic Transformers-style head from 1985 – **mouth shield** and ... The paint on the eyes, **mouth shield**, and forehead detail is well applied, ...
www.articulateddiscussion.com/.../Guest-Review-Transformers-Collection-Perceptor.aspx - [Cached](#)

AN OPHIURAN FROM THE BYRAM MARL (OLIGOCENE) OF MISSISSIPPI The ...

Side **mouth shield**: Plate in general trowel-shaped; outline triangular with 9, Side **mouth shield**, ventral view; 13, dorsal view. 10, Central disk plate, ...
www.jstor.org/stable/1298502
by CT Berry - 1937 - [Cited by 1](#) - [Related articles](#)

Shvetambara Terapanthis

The Terapanthis follow some Sthanakvasi doctrine, including the permanent wearing of the

muhpatti, **mouth-shield**, and rejection of image-worship and certain ...
philtar.ucsm.ac.uk/encyclopedia/jainism/shvter.html - [Cached](#)

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Webster's II

New College Dictionary



Houghton Mifflin Company

Boston • New York

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p. cm.

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I. English language -- Dictionaries. I. Webster's II new
Riverside University dictionary
PE1628.W55164 1995
423 -- dc20

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Printed in the United States

Shetland pony • shinleaf

Shetland pony *n.* A small, compactly built pony orig. bred in the Shetland Islands.

Shetland sheepdog *n.* A dog orig. bred in the Shetland Islands, having a rough coat and resembling a small collie.

Shevat (shə-vāt') also **She-bat** (-bāt', -vāt') *n.* [Heb. *shēbhāt*.] The fifth month of the year in the Jewish calendar. — See table at **CAL-NDAR**.

shew-bread (shō'brēd') *n.* Archaic. var. of **SHOWBREAD**.

Shi-ah also **Shi-a** (shē'a) *n.* [Ar. *shī'ah*, a following < *shā'a*, he followed.] 1. The principal minority branch of Islam, whose members regard Ali and his descendants as the legitimate successors to Muhammad and reject the other caliphs and the Sunnite legal and political institutions. 2. A Shiite.

shi-at-sū (shē-āt'sū) *n.* [Short for *J. shiatsuryōhō* : *shi*, finger + *atsu*, pressure + *ryōhō*, treatment.] A massage in which finger pressure is applied to those areas of the body used in acupuncture.

shib-ah (shiv'a) *n.* var. of **SHIVA**.

shib-bo-leth (shīb'ə-lēth, -lēth') *n.* [Heb. *shibboleth*, an ear of corn, stream, from the use of this word to distinguish Gileadites from Ephraimites, who pronounced it *sibboleth*.] 1. A language usage that distinguishes the members of one group or class from another. 2. a. A catchword : slogan. b. A common saying.

shield (shēld) *n.* [ME *sheild* < OE *scield*.] 1. A piece of armor made of leather, metal, or wood and carried on the forearm. 2. A means of defense : PROTECTION. 3. a. An escutcheon. b. A police officer's badge. c. A decorative emblem often serving to identify. 4. A steel sheet attached to a gun to protect the gunners from small-arms fire. 5. *Zool.* A hard outer covering, as a protective plate. 6. A piece of rubberized or absorbent cloth worn, as at the armpits, to protect a garment from perspiration stains. 7. *Physics.* A mass of material, as lead or cement, that encloses a nuclear reactor in order to reduce the amount of radiation that escapes into the surrounding area. — *v.* **shield-ed**, **shield-ing**, **shields**. — *vt.* 1. To defend or protect with or as if with a shield : GUARD. 2. To conceal. — *vi.* To act or function as a shield. — **shield'er** *n.*

shield law *n.* A law protecting journalists from being forced to reveal confidential sources of information.

Shield of David *n.* The Magen David.

shiel-ing (shē'ling, -līn) *n.* [< Sc. *shiel*, hut < ME *schele*, prob. of Scand. orig.] Scot. A shepherd's hut.

shier (shī'ər) *adj.* var. compar. of **SHY**.

shies¹ (shiz) *v.* 3rd person sing. present tense of **SHY**¹. — *n.* pl. of **SHY**¹.

shies² (shiz) *v.* 3rd person sing. present tense of **SHY**². — *n.* pl. of **SHY**².

shiest (shī'ist) *adj.* var. superl. of **SHY**.

shift (shif) *v.* **shift-ed**, **shift-ing**, **shifts**. [ME *shiften*, to arrange < OE *sciftan*.] — *vt.* 1. To move from one place or position to another. 2. To exchange (one thing) for another : SWITCH < *shift* marketing tactics > 3. To change (gears) in a motor vehicle. 4. To alter phonetically or as part of a systematic change. — *vi.* 1. To change position, direction, place, or form. 2. a. To provide for one's own needs < had to shift for myself > b. To get along by evasive means. 3. To change gears, as when driving a motor vehicle. — *n.* 1. A change from one individual, position, or configuration to another. 2. A change of direction or form. 3. a. A group of workers on duty at the same time, as at a mill. b. The working period of such a group < worked the day shift > 4. *Mus.* A change of the position of the hand in playing a musical instrument such as the violin. 5. a. A systematic change of the phonetic or phonemic structure of a language. b. Functional shift. 6. *Football.* A lateral movement of the offensive backfield from one formation to another just prior to putting the ball in play. 7. a. A loosely fitting dress that hangs straight from the shoulders : CHEMISE. b. A woman's undergarment, as a slip. 8. a. A means to an end : EXPEDIENT. b. A stratagem. — **shift'er** *n.*

shift key *n.* A key on a typewriter or computer keyboard that, when depressed, changes letters from lower case to upper case.

shift-less (shif'tlis) *adj.* [SHIFT, resourcefulness (obs.) + LESS.] 1. Devoid of purpose or ambition : LAZY. 2. Lacking efficiency. — **shift'less-ly** *adv.* — **shift'less-ness** *n.*

shift register *n.* A computer memory device in which data can be moved to the left or to the right.

shift-y (shif'tē) *adj.* **-i-er**, **-i-est**. 1. Crafty : tricky. 2. Suggesting craft or guile. 3. Resourceful. — **shift'i-ly** *adv.* — **shift'i-ness** *n.*

shi-gel-la (shī-gēl'ə) *n.*, pl. **-gel-lae** (-gēl'ē) [NLat. *Shigella*, genus name, after Kiyoshi Shiga (1870–1957).] Any of various nonmotile rod-shaped bacteria of the genus *Shigella*, including some species that cause dysentery.

Shi-ism (shē'iz'əm) *n.* The religion or doctrines of the Shiites.

shi-i-ta-ke (shē-tā'kē, shē'ē-tā'kē) *n.*, pl. **shīitake**. [J. : *shi*, oak + *take*, mushroom.] An edible eastern Asian mushroom, *Lentinus edodes*, having an aromatic fleshy golden or dark brown to blackish cap and an inedible tough stipe.

Shi-ite (shē'it') *n.* A member of the Shiah branch of Islam. — *adj.* Of or relating to the Shiites or Shiism. — **Shi-it'ic** (-it'ik) *adj.*

shi-ka-ri (shī-kār'ē, -kār'ē) *n.* [Hindi < Pers. *shikāri* < *shikār*, hunting.] A big-game hunting guide.

shi-ling-i (shī-ling'ē) *n.*, pl. **shilingi**. [Swahili < E. SHILLING.] — See table at **CURRENCY**.

shill (shil) [Orig. unknown.] *Slang.* — *n.* One who works as a deejay as in a confidence game, by posing as a customer or an innocent bystander. — *vi.* **shilled**, **shill-ing**, **shills**. To act as a shill. — **shil-le-lagh** also **shil-la-lah** (shā-lā'le, -lə) *n.* [After *shillelagh*, Ireland.] A cudgel, esp. one of oak or blackthorn.

shil-ling (shil'ing) *n.* [ME < OE *scilling*.] 1. — See table at **CURRENCY**. 2. A virgule.

shil-ly-shal-ly (shil'ē-shāl'ē) *vi.* **-lied**, **-ly-ing**, **shil-ly**. [Recap. of the phrase *shall I*.] 1. To hesitate or waver. 2. To idly amuse oneself. — *pl.* **-lies**. Procrastination : hesitation. — **shil'ly-shal'ly-ly** *adv.* — **shil'ly-shal'li-er** *n.*

shim (shim) *n.* [Orig. unknown.] A thin, often tapered piece of material, as metal, wood, or stone, used as leveler or filler between other materials such as stone or metal or between pieces of furniture and the floor. — *vt.* **shimmed**, **shim-ming**, **shims**. To level or fill in by using a shim.

shim-mer (shim'ər) *vi.* **-mered**, **-mer-ing**, **mers**. [ME *shimmeren* < OE *scimerian*.] To shine with a flickering light. — **shim-mer-er** *n.* — **shim'mery** *adj.*

shim-my (shim'ē) *n.*, pl. **-mies**. [Short for *shimmy* (shimmy, shake, shimmy, alteration of CHEMISE).] 1. A dance popular in the 1920s marked by rapid shaking of the body. 2. Abnormal vibration, as in the chassis of a motor vehicle. 3. Regional. A chemise. — *vi.* **-mied**, **-my-ing**, **-mies**. 1. To vibrate abnormally. 2. To shake the body or as if in dancing the shimmy.

shin¹ (shin) *n.* [ME *shine* < OE *scinu*.] 1. *Anat.* a. The front part of the leg below the knee and above the ankle. b. The tibia. 2. The lower part of the foreleg in beef cattle as opposed to the upper foreleg or shank. — Used of cuts of meat. — *v.* **shinned**, **shin-ming**, **shines**. — *vt.* 1. To climb (e.g., a rope) by gripping and pulling alternately with the hands and legs. 2. To kick or hit in the shins. — *vi.* To climb something by shinning.

shin² (shēn, shin) *n.* [Heb. *shin*.] The 22nd letter of the Hebrew alphabet. — See table at **ALPHABET**.

shin-bone (shin'bōn') *n.* The tibia.

shin-dig (shin'dig') *n.* [Prob. alteration of SHINDY.] Slang. A festive celebration or party.

shin-dy (shin'dē) *n.*, pl. **-dies**. [Alteration of SHINDY.] Slang. 1. An uproar. 2. A shindig.

shine (shin) *v.* **shone** (shōn) or **shined**, **shin-ing**, **shines**. [ME *shinen* < OE *scinan*.] — *vi.* 1. To emit light : BEAM. 2. To reflect light : GLINT. 3. To distinguish oneself in a field or activity : EXCEL. 4. To become clearly apparent. — *vt.* 1. To aim or cast the beam or glow of < shine that flashlight over here > 2. *p.t.* *shined* / *p.p.* **shined**. To make glossy by polishing. — *n.* 1. Radiance : brightness. 2. A shoeshine. 3. Fair weather < The game will be held, rain or shine > 4. *shines*, *informal*. Foolish pranks. 5. *Slang*. Moonshine whiskey. — **take a shine to**. To take an immediate liking to.

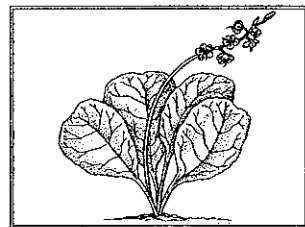
shin-er (shī'nər) *n.* 1. One that shines. 2. *Slang*. A black eye. 3. a. A small, often silvery North American freshwater fish of the family Cyprinidae, esp. one of the genus *Notropis*. b. Any of various other small silvery fishes.

shin-gle¹ (shing'gəl) *n.* [ME *schyngle* < Lat. *scindula*, alteration of *scandula*.] 1. A thin oblong piece of material, as wood or asbestos, laid in overlapping rows to cover the roofs and sides of houses. 2. *Informal*. A small signboard, as one indicating a lawyer's office < hang out a shingle > 3. A woman's close-cropped haircut. — *vt.* **-gled**, **-gling**, **-gles**. 1. To cover (a roof or building) with shingles. 2. To cut (hair) short and close to the head. — **shin'gler** *n.*

shin-gle² (shing'gəl) *n.* [Sc. *chyngill*, perh. of MLG orig.] 1. a. Beach gravel composed of large smooth pebbles unmixed with finer material. b. A stretch of shore covered with coarse, smooth gravel. 2. Gravel coarser than ordinary gravel. — **shin'gly** *adj.*

shin-gles (shing'gəlz) *pl.n.* [ME *schingles*, by folk ety. < Med. Lat. *cingulus* < Lat., belt < *cingere*, to gird.] (*sing.* or *pl.* in number) *Pathol.* Herpes zoster.

shin-leaf (shin'lēf') *n.* [From the use of its leaves in plasters for sore legs.] A North American woodland plant, *Pyrola elliptica*, with rounded basal leaves and white flowers.



shinleaf

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