

gripping. Of course, other shapes and gripping means can be utilized. For example, the handle may have an opening to place a thumb or forefinger through the opening to facilitate stabilization of the product during insertion and removal from the patient's mouth. Alternatively, a scooped-out or thinned-out portion of the distal end of the handle may be utilized to permit the practitioner to better grip the handle. On the surface of the handle, a number, which corresponds to the size of the LMA for which the bite block is intended to be used, may be molded or stamped. Moreover, a device or means to facilitate securing the bite block to the skin of the face may be affixed to the handle.

As best shown in FIG. 3 which illustrates the bite block turned on its side, the bite block 1 is designed to be identical on the upper and lower surfaces (i.e., symmetrical with respect to a horizontal mid-plane which corresponds to a vertical line passing through the handle 3 in FIG. 3) so that it can be rotated 180°. By comprising a mirror image on either side, the bite block can be turned and placed in either side of the mouth. This is a specific and intended advantage of the product which allows the practitioner to decide which side of the patient's mouth to place the bite block based upon such factors as the handedness of the anesthetist, condition of the molars or non-incisor teeth on either side of the mouth, and personal preference of the anesthetist.

While the flanges 15-18 of the embodiment of FIGS. 1-4 follow the angle of the wedge-shaped bite block portion 2 so as to gradually taper downwardly toward the posterior portion 4 (see especially FIG. 2), the flanges may be formed without any taper as shown in FIG. 6 where the upper medial flange 15' and the lower medial flange 17' are visible.

In use, after general anesthesia has been induced in the patient, the bite block 1 is placed between the non-incisor teeth, such as the molars, and functions to keep the patient's incisors apart. The bite block may be placed either after the LMA has been inserted or, if desired, can be inserted with the intention of stabilizing the jaws with the teeth well separated during insertion of the LMA. FIG. 7 shows the bite block in place between the patient's molars along with the corresponding LMA. Utilizing the bite block of the present invention during insertion of the LMA would be carried out when a practitioner has difficulty in inserting the LMA, or if the practitioner wishes to utilize both hands to insert the LMA rather than utilizing one of his hands to hold the patient's jaws apart. Further, using the handle 3 of the bite block during insertion (or removal) eliminates the chance of the patient biting a practitioner's fingers during light stages of general anesthesia. The presence of the handle 3 also prevents the bite block 1 from slipping into the hypopharynx and causing airway obstruction. During an operation and prior to awakening of the patient from general anesthesia, the practitioner uses the suction channels or grooves 13 and 14 to suction secretion from the posterior oropharynx and hypopharynx. The bite block 1 may be removed either concomitant with the removal of the LMA or shortly before or after the LMA is removed.

Alternatively, as shown in FIG. 8 the bite block 1 can be used with oral endotracheal tubes (ETs) having an exiting tube 20' in patient's where the use of oral airways is normally inadvisable. For example, the use of oral airways in patient's with frontal bridge work or loose incisors can be hazardous and may result in damage to those structures.

The patient airway bite block according to my invention includes the following advantages:

1) The non-incisor teeth engagement surfaces are angled specifically to keep a patient's incisors wide enough

apart that they do not impinge upon the breathing portion of the LMA tube (or endotracheal tube).

- 2) The bite block is made specifically for corresponding LMAs and is sized accordingly. Additionally, the bite block can be made specifically for use with oral endotracheal tubes which have a similar caliber as the tube used for LMAs in any individual patient.
- 3) The non-incisor teeth engaging surfaces of the bite block are serrated and irregular, or pliable, to provide appropriate gripping and seating of the non-incisor teeth, such as the molars.
- 4) The upper and lower lateral flanges extending from the bite block portion function to prevent the bite block from moving medially towards the tongue, and prevent the molars from biting into the mucosa of the cheek.
- 5) The upper and lower medial flanges prevent the bite block from moving laterally and serve to protect the tongue from being bitten between the bite block and the non-incisor teeth.
- 6) The free ends of all of the flanges are angled away from the non-incisor teeth in order to keep pressure off the gums and alveolar surfaces and thereby prevent trauma to the oral structures.
- 7) The handle is an integral portion of the device and is used for insertion and removal of the bite block.
- 8) The handle prevents the inadvertent loss of the bite block into the posterior oropharynx and hypopharynx.
- 9) The handle may be curved away from the tube portion of the LMA and thus does not interfere with the appropriate positioning or placement of the LMA.
- 10) The handle may be flattened to minimize its size and facilitate better gripping by the practitioner.
- 11) Grooves or serrations may be formed on the flat portion of the handle to further facilitate gripping.
- 12) A size indicia may be formed in the handle of the bite block which corresponds to the size of the LMA for which the particular block is intended to be used.
- 13) Grooves or channels may be formed on the medial and lateral side wall portions of the bite block portion to allow suctioning of the posterior airway.
- 14) The upper and lower portions of the product are mirror images of each other and thereby permit the bite block to be rotated 180° and inserted on either side of the mouth.

It is contemplated that numerous modifications may be made to the patient airway bite block of my invention without departing from the spirit and scope of the invention as defined in the following claims.

What is claimed is:

1. A bite block for use by a human patient, comprising:
 - a) a bite block portion defining a posterior portion and an anterior portion and having upper and lower non-incisor teeth engagement surfaces for engaging the patient's upper and lower non-incisor teeth in either side of the patient's mouth, thereby to hold the patient's incisors apart when said bite block is positioned in the patient's mouth at one side thereof;
 - b) upper and lower lateral flanges extending from said bite block portion a sufficient distance beyond the biting surface of the non-incisor teeth when said bite block is positioned in the patient's mouth thereby to prevent the bite block from moving medially toward the patient's tongue;
 - c) upper and lower medial flanges spaced apart from said upper and lower lateral flanges, respectively, and