in FIG. **13**. Alternately, a medical tube similar to tube **1020** can be positioned (not shown) on the outside of nose portion **270** of device **200** and subsequently secured to the nose portion. One or more medical tubes such as tube **1040** (FIG. **15**) can be intubated in the mouth and secured to device **200** in conjunction with tube **1020** which is inserted in the nose. Nose portion **370** of device **300**, shown in FIG. **8**, is used in a similar way as nose portion **270** of device **200**.

A securely positioned medical tube system as defined herein includes devices of the present invention wherein one or more medical tubes are introduced in the device and secured to a frame portion or to a frame member of the device.

The medical tube holding or positioning and securing devices of the present invention result in significantly improved performance compared with prior art devices. For example, the frame portions combined with the fasteners of these devices result in very limited contact between the devices and the patient's nose, mouth, lips or skin thereby greatly reducing a patient's discomfort and greatly reducing the potential for nose, mouth, lip or skin irritation. The frame structure and the lack of a bite block greatly facilitate inspection of and access to a patient's mouth, potentially resulting in a more optimal medical treatment and improved mouth and nose hygiene. When a hand bendable frame material is used, the medical practitioner can manually adjust the fit of the device in the patient's mouth and adjust the degree of curvature of the cheek portions such that the cheek portions are positioned substantially parallel to the patient's face, without touching the patient's face.

The configuration of the devices of the current invention together with the use of suitable fasteners result in securely fastening the medical tubes in the appropriate position in a patient's nose or mouth. The fasteners are preferably attached to four positions, loops or loop sections on each device resulting in a four point attachment system in addition to contact between the device and the patient's upper and lower jaws. However, even though the tubes are thus securely fastened in a patient's mouth, it has been found possible to make desirable small changes in the position of the mouth portion relative to a patient's mouth, for example by moving the device laterally over a distance of a few mm without substantially changing the position of the tube in the patient's nose or throat. Frequent, small lateral re-positioning of the device further reduces the potential for patient discomfort because the points of contact between the device and the patient can be changed frequently.

The inverted U-shaped configuration of the central frame portion of the present invention provides unexpected benefits due to increased flexibility of the device when there is no rigid connection between the ends of the legs. The increased flexibility can be used to provide a slight spring bias to the fastener which is connected to the loop sections at the ends of the legs by attaching and tightening the fastener while flexing the legs towards the fastener. Also, the increased flexibility of the device enables the device to moderately absorb physical shocks, due for example, a sudden head movement.

It is important to note that the devices and fasteners of the present invention can be used without a medical practitioner having to use adhesive tape or adhesive patches. Adhesive materials tend to stick to the practitioner's gloves thereby causing tears or holes in the glove which can result in the practitioner's exposure to potentially harmful patient body fluids, compounds or microorganisms. This is particularly important during medical emergency procedures where a medical practitioner's effectiveness can be seriously hindered by the need to avoid contact with adhesive surfaces.

The invention has been described in terms of the preferred embodiment. One skilled in the art will recognize that it would be possible to construct the elements of the present invention from a variety of means and to modify the placement of components in a variety of ways. While the preferred embodiments have been described in detail and shown in the accompanying drawings, it will be evident that various further modifications are possible without departing from the scope of the invention as set forth in the following claims.

I claim:

1. A medical tube positioning and securing device comprising:

a) a central frame portion, wherein the central frame portion has an upper jaw frame portion which is configured for contacting a patient's upper jaw and mouth palate and wherein the central frame portion is adapted for inserting a medical tube therethrough;

b) a lower jaw frame portion extending from the central portion;

c) a first cheek frame portion extending from the central portion;

d) a second cheek frame portion extending from the central portion; and

e) a mouth portion comprising the upper jaw portion and the lower jaw portion, wherein the mouth portion is adapted for placement in a patient's mouth such that the mouth remains open.

2. The device according to claim **1** additionally comprising:

a) a first attachment point located at the first cheek frame portion;

b) a second attachment point located at the second cheek frame portion; and

c) a fastener for fastening the device to a patient's head, wherein the fastener is attached to the first and second attachment points.

3. The device according to claim **2** wherein the first attachment point comprises a first extremity position on the first cheek frame portion and wherein the second attachment point comprises a second extremity position on the second cheek frame portion.

4. The device according to claim **1** wherein the upper jaw frame portion is inverted U-shaped.

5. The device according to claim **1** wherein the cheek and mouth portions are hand bendable.

6. A securely positioned medical tube system comprising:

a) a central frame portion, wherein the central frame portion has an upper jaw frame portion which is configured for contacting a patient's upper jaw and mouth palate and wherein the central frame portion is adapted for inserting a medical tube therethrough;

b) a lower jaw frame portion extending from the central portion;

c) a first cheek frame portion extending from the central portion; and

d) a second cheek frame portion extending from the central portion.

7. The system according to claim **6** additionally comprising a fastener for fastening the system to a patient's head.

8. The device according to claim **6** wherein the upper jaw frame portion is inverted U-shaped.

9. The device according to claim **6** wherein the cheek and mouth portions are hand bendable.

10. A medical tube positioning and securing device comprising: