

**An improved Bullard laryngoscope holder:
Bullard Mate version 2**

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To the editor: The authors have previously reported the advantages of utilizing the Bullard intubating laryngoscope (BL; Circon, Stanford, CT, USA) during endotracheal intubation [1], and we have also produced a prototype laryngoscope holder (Bullard Mate) for holding the BL before and after the endotracheal intubation procedure. The Bullard Mate has become a valuable asset, allowing smooth use of the BL dur-

ing the routine practice of clinical anesthesia. Following the recent introduction of an endoscopic system in the authors' department, the mode of endotracheal intubation has also changed. The anesthetist performs endotracheal intubation while watching a monitor that depicts the images obtained during BL insertion. Accompanying this change, an improved prototype Bullard Mate, called the Bullard Mate version 2, was trial-produced.

The points of improvement of the Bullard Mate version 2 are as follows (Fig. 1):

To enhance the balance of the total load, the supporting pole fixed to the basal seat is tilted forward by approximately 5°. The number of supporting hooks for the BL has been increased from two to three.

In view of the additional weight of the camera head, the base of the ocular arm is held by two supporting hooks.

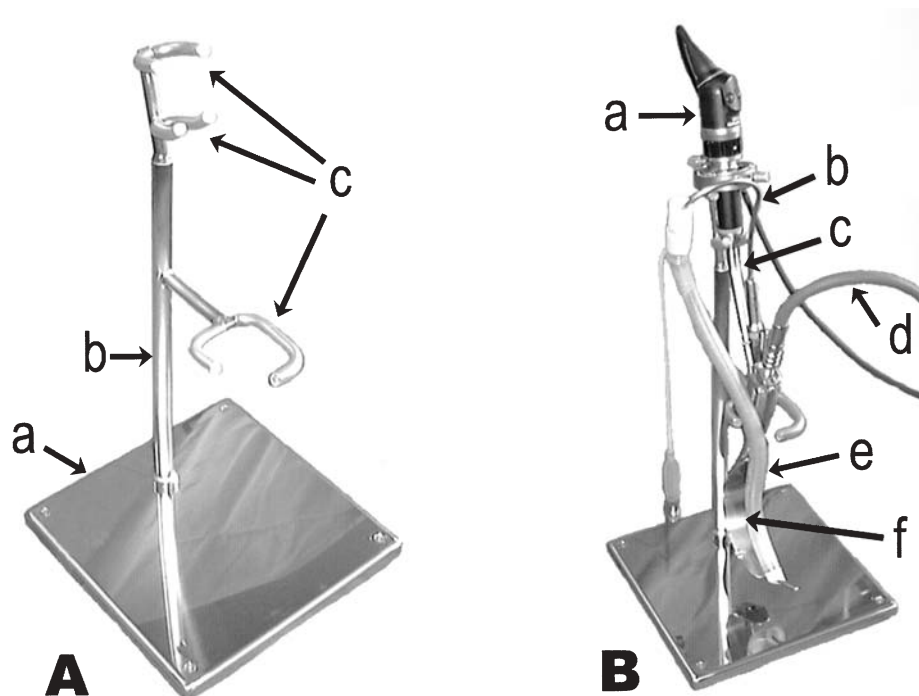


Fig. 1. **A** The main body of the Bullard Mate version 2. The supporting pole is slanted forward at approximately 5°. There are three supporting hooks. *a*, Basal seat; *b*, supporting pole; *c*, silicon-coated hooks. **B** The Bullard mate version 2 holding the Bullard laryngoscope loaded with the camera head and endotracheal tube. *a*, Camera head; *b*, adult introducing stylet; *c*, ocular arm; *d*, optic fiber cord from the light source; *e*, styletted endotracheal tube; *f*, laryngoscope blade

The supporting hooks for the laryngoscope body have been designed to prevent forward slippage of the instrument. The inner surfaces of all supporting hooks in contact with the BL are silicon-coated to prevent slippage.

During the recent installation of an endoscopic system at the department of anesthesiology, integration of the BL into the system was also planned. The biggest problem, however, was the camera head (OTV-S6H-IN; Olympus, Tokyo, Japan) attached to the BL, which weighs approximately 150 g. Since this heavy camera head is attached to the uppermost part of the peculiarly shaped BL, the previous holder became extremely unstable. A new design was therefore needed for safe and reliable use of the instrument.

The new holder, Bullard Mate version 2, almost entirely supports the BL loaded with the camera head. As long as the

holder does not collapse, there is no risk of slippage. Giving first priority to safety without compromising convenience is a constant consideration. The present improved version was produced by following this principle precisely, and the design is at the very limit of what is permissible in routine clinical practice.

Reference

1. Tada T, Amagasa S, Horikawa H (2000) A Bullard laryngoscope holder for bedside use. *J Anesth* 14:226

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