An Adjustable Laryngoscope Handle for Difficult Intubations

To the Editor—Direct laryngoscopy is at best difficult and may be impossible in massively obese patients and those in halo traction. Fracture or instability of the cervical spine may preclude extension of the neck, which usually facilitates visualization of the larynx. Use of a short (Bantam) handle overcomes the problem in some patients. As a further refinement, an adjustable angle laryngoscope has been designed.* A blade lock (arrow) allows positioning of the blade at 180, 135, 90, or 45 degrees to the handle. When the handle impinges on the patient’s chest, the blade is positioned and introduced parallel to the handle (fig. 1). The angle then is changed to 135 degrees or 90 degrees, the tongue retracted, and laryngoscopy performed. The barrel of the handle contains two AA batteries and is 8 cm in length. The overall length and weight of the handle and blade lock mechanism is approximately the same as conventional handles containing two C batteries.

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* Available from Anesthesia Associates, San Marcos, California.

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Tension Pneumocephalus and Intermittent Drainage of Ventricular CSF

To the Editor—Tension pneumocephalus already has received more than a fair share of attention in recent issues of ANESTHESIOLOGY.1-3 However, I raise the subject again because of a clinical trap that I would like to describe, lest others fall in after me. A 39-year-old man with a 3-year history of unilateral hearing loss and head-
ache underwent a posterior fossa craniotomy for excision of a large (maximum diameter 5 cm) right cerebellopontine angle tumor. Anesthesia was induced with sodium thiopental and maintained with fentanyl, droperidol, and 60% nitrous oxide. The patient was placed in a semilateral position (right shoulder elevated, head of table elevated 15 degrees, head rotated 20 degrees to the left, and the table tilted to the left). Retromastoid craniectomy revealed a tense dura, and when the latter was incised the cerebellum bulged into the surgical field. In spite of hypocapnia (Paco₂ 23), osmotic diuresis, and excision of the lateral aspect of the cerebellar hemisphere, access to the right cerebellopontine angle remained difficult. Accordingly, a twist drill hole was made in a right posterior occipital area, and a ventriculostomy needle was passed into the occipital horn of the right lateral ventricle. The CSF was allowed to drain to atmospheric pressure and posterior fossa access improved. During the ensuing surgery, table adjustments including rotation of the table away from the operative side and elevation of the head to approximately 30 degrees were made to facilitate microscope access. The ventricular cannula eventually was removed to facilitate placement of skull mounted retractors. After approximately 6 h of dissection, cerebellar swelling of reasonably sudden onset was noted. The retractors were removed, and when the ventricular needle was reinserted to again improve exposure, gas escaped under pressure. Nitrous oxide administration was discontinued. Because of persistent and extensive cerebellar swelling, the procedure was terminated shortly thereafter, and a postoperative CT scan was performed. The latter revealed enlargement of the right cerebellar hemisphere, without evidence of intracerebellar or intraventricular hemorrhage. There was air in the left lateral ventricle.

The significance of what is apparent in retrospect was overlooked as the procedure evolved. The pressure in the posterior horn of the lateral ventricle was reduced to atmospheric by CSF drainage and then reduced to subatmospheric levels by elevation and rotation of the head. Air therefore was entrained, and when the brain needle subsequently was removed, nitrous oxide inevitably entered the air containing, and now closed, space.

As the bard said, "there is nothing new under the sun," and that is certainly true of this case report. What it represents, however, is the confluence of a well-recognized physiologic phenomenon (the diffusion of nitrous oxide into a closed space) and what is a relatively uncommon peroperative occurrence (intermittent ventricular drainage). This case might be used as a spring board for a discussion of the role of nitrous oxide in neurosurgery, however, that discussion is not appropriate to this forum. The case is presented rather as a reminder that "in and out" drainage of ventricular CSF (which also may have been performed preoperatively in hydrocephalic children) may result in the creation of an air-containing closed space and that this situation represents a relative contraindication to the use of nitrous oxide.

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An Unusual Cause for Airway Obstruction in a Young Healthy Adult

To the Editor:—A 38-year-old male was admitted for open reduction and internal fixation of a discontinuity defect of right mandibular fracture. After induction of anesthesia, the surgeons then asked that we rotate the operating table sideways so that they may have more room to move freely. To allow that, we added extension tubings to the anesthesia circuit, using one copper connector to join two disposable corrugated tubes on each limb of the breathing circuit. The patient was breathing spontaneously with ease. Soon after the addition of the extension tubings to the circuit, while we were turning the table, the patient started to exhale against severe resistance. Then we disconnected the breathing circuit from the endotracheal tube. We checked the cuff and the placement of the endotracheal tube and suctioned some secretions from its lumen. The patient breathed more easily, and breath sounds were equal and clear bilaterally, but on reconnection of the anesthesia circuit to the endotracheal tube, we noticed that the same airway obstruction recurred. There were no auscultatory breath sounds on the expiratory tubing. We disconnected the extension tube on the expiratory side, and to our surprise, we discovered a coin (a penny) lodged inside the copper connector on the expiration limb and completely ob-