communication) lends support to the advantages Dr. Gillick mentions, particularly in patients with essentially normal compliance. However, in patients who have abnormally low compliance, the work of breathing becomes so great that it must be weighed against the cardiovascular benefits in a given patient. To do this, one must be able to measure cardiac output, airway pressure, and intrapleural pressure.

In the less critically ill patient, such a problem may be academic, and the use of ambient inspiratory pressures could well be an advantage. However, I cannot recommend the use of the system I described for a patient with decreased compliance who needs high positive end-expiratory pressure.

I thank Dr. Gillick for pointing out a statement that I used with perhaps too broad a connotation.

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Endotracheal Tube Obstruction

To the Editor:—The insertion of an endotracheal tube does not completely guarantee the patency of the airway. Obstruction has occurred due to kinking, cuff displacement, compression, or the presence of a foreign body, clotted blood or dried secretions.¹ The use of clear plastic disposable tubes has diminished the risk of obstruction due to a foreign body.

Shaw² described a case of obstruction of a metal endotracheal connector the cause of which was revealed only when the connector was sawn open, the foreign matter proving to be hardened plastic whose source was never determined.

It is axiomatic that all anesthetic equipment be correctly checked and proven to be in working order prior to use. Occasionally, however,
even the most careful and experienced anesthesiologist can be the victim of a bizarre circumstance.

Following induction of anesthesia with thiopental, and the administration of succinylcholine, endotracheal intubation was easily performed in a 56-year-old patient. The tube chosen was a number 9 plastic precut Murphy tube, supplied with the 15-mm connector already inserted by the manufacturer.

Manual compression of the reservoir bag revealed complete respiratory obstruction. The resident anesthesiologist removed the tube and was easily able to inflate the patient’s lungs using a face mask. Endotracheal intubation was repeated using the same tube, and complete respiratory obstruction was again demonstrated. The tube was removed and ventilation continued, again using a mask.

The attending anesthesiologist, whose practice it is always to use a stylet, took over the management of the case, and found to his surprise that he could not pass a metal stylet through the 15-mm connector. Another tube was inserted and anesthesia continued uneventfully, the patient suffering no harm from the incident.

Examination of the first tube revealed that the 15-mm connector was blocked by a spare “one-way” inflating valve, there already being an inflating valve on the pilot tube. Figures 1 and 2 show the state of affairs that existed.

The manufacturer suggested that this possibly happened during packaging of the tube. He gives his assurance that an additional check will be carried out in the future, at the appropriate stage in the packaging process to prevent this accident from occurring again.

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REFERENCES

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Recovery of Methoxyflurane Metabolites from Urine

To the Editor: —The editorial by Drs. Mazze and Hitt that immediately preceeded our article “Metabolism of Methoxyflurane in Man” (ANESTHESIOLOGY 44:372–379, 1976) challenges our contention that 37 per cent of absorbed methoxyflurane could not be recovered as exhaled methoxyflurane or urinary metabolites. The editorial emphasizes the importance of complete urine collections, with verification by creatinine excretions. It points out that “… measurements of excretion of urinary metabolites by patients who have renal insufficiency probably are not reliable.” The editorial concludes that “Based on the very low inorganic fluoride clearances reported by Yoshimura et al., several of their patients either had compromised renal function or had incomplete urine collections.”

We agree that complete urine collections are crucial to metabolic balance studies of the volatile anesthetics, as are the estimations of the amounts of drug absorbed and exhaled. In all of our studies of the volatile anesthetics, therefore, we have relied not only on cooperation of the subjects, but also on creatinine or solute excretion as indicators of complete urine collection. We stated in the article (page 372, first paragraph under “Methods”) that studies of renal function were performed before and after anesthesia and would be reported elsewhere. These included daily creatinine and solute excretions. Where deviations from normal occurred, we mentioned them (Subjects 1 and 11).

Because the editorial challenges the credibility of our report, we present here our data on creatinine excretion as evidence that urine collections were complete and that, in the main, the patients were not in renal insufficiency. Table 1 includes the means and standard deviations of the daily excretions of creatinine for 11 of the 12 subjects, numbered as in our paper. These means represent 5–14 samples (mean 9.4, SD 3.5), including col-