A Simple Device for Remote Monitoring of Respiration

To the Editor:—During high voltage radiation treatments at our hospital, no personnel may remain in the room, so patients are monitored by closed-circuit television. We are periodically requested to anesthetize pediatric patients to provide immobility during treatments. However, resolution on the television monitor is limited, and it is often impossible to see the patient’s chest move, or even see the movements of the anesthesia bag. We have developed a simple device for magnifying the movement, and therefore the visibility, of the anesthesia bag. A 24-inch (60 cm) stick made of tongue blades taped together is anchored to the bag neck of a Jackson-Rees anesthesia circuit (fig. 1). A small piece of tape may be necessary to hold the stick on top of the bag. During respiration, movement of the free end of the stick, accentuated by a 10-cm flag of white paper, is easily seen on the closed-circuit television screen (fig. 1). Ready availability of components (in every anesthesia cart), strength, light weight, lack of impedance of free breathing, ease of use and minimal cost has made this device popular in our institution. An engineering degree is not required to assemble, maintain or operate this disposable device, a fact we hope others will find attractive in this era of increasing technological complexity.

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Fig. 1. Accentuation of child’s respiratory movements by long lever arm.