## ANESTHESIOLOGY REFLECTIONS FROM THE WOOD LIBRARY-MUSEUM

Shock and Aftershock: How a Surgeon Trying to Prevent Brain Damage Inspired a "Physiologist" to Cause It...Unwittingly



Cleveland surgeon George W. Crile, M.D. (*left*, 1864 to 1943), observed that, "Under nitrous oxid[e] anesthesia animals require approximately three times as much trauma to produce an equal amount of shock and equal physical changes in the brain-cells as under ether." His peers believed rebreathing exhaled gases could maintain or restore venous tone otherwise compromised by surgical shock. So, by promoting use of nitrous oxide and the "fractional rebreathing" anesthesia machines that he manufactured, physiologist-anesthetist Elmer I. McKesson, M.D. (*right*, 1881 to 1935), found himself encouraging brief administration of 100% laughing gas. Thousands of patients received oxygen-free bursts of laughing gas administration to start their general anesthesia and often again—while anesthetized—to promote muscle relaxation. By mimicking McKesson's hypoxic efforts, other anesthetists occasionally found their patients committed to insane asylums postoperatively, presumably for brain damage. And that is how Doctors Crile and McKesson were, respectively, the surgeon trying to prevent brain damage and the physiologist who ended up causing it...unwittingly. (Copyright © the American Society of Anesthesiologists' Wood Library-Museum of Anesthesiology.)

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