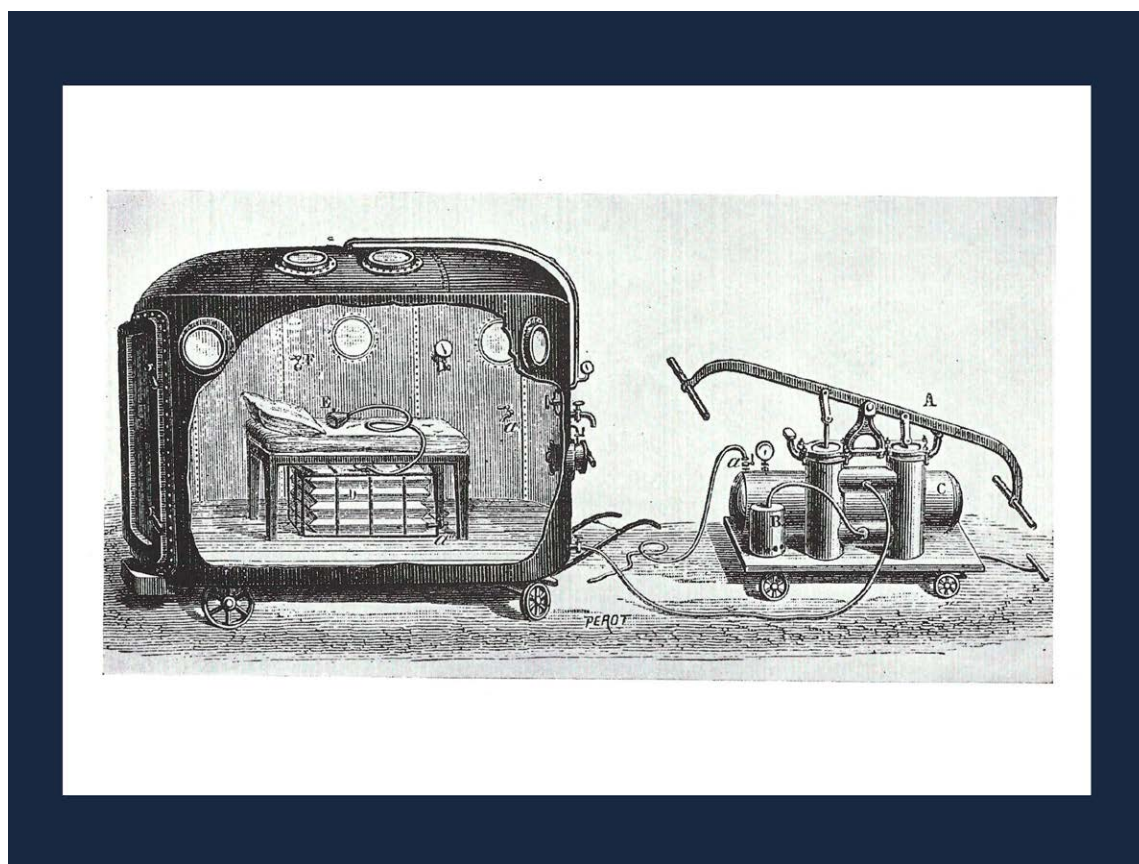


Leithner C, Abed-Maillard S, Navarra L, Annborn M, Undén J, Brunetti I, Awad A, McGuigan P, Björkholt Olsen R, Cassina T, Vignon P, Langeland H, Lange T, Friberg H, Nielsen N; TTM2 Trial Investigators: Hypothermia *versus* normothermia after out-of-hospital cardiac arrest. *N Engl J Med* 2021; 384:2283–94

47. Sandroni C, Nolan JP, Andersen LW, Böttiger BW, Cariou A, Cronberg T, Friberg H, Genbrugge C, Lilja G, Morley PT, Nikolaou N, Olsaveengen TM, Skrifvars MB, Taccone FS, Soar J: ERC-ESICM guidelines on temperature control after cardiac arrest in adults. *Intensive Care Med* 2022; 48:261–9

## ANESTHESIOLOGY REFLECTIONS FROM THE WOOD LIBRARY-MUSEUM

# Paul Bert's OR on Wheels: A Hyperbaric Nitrous Oxide Chamber



Paul Bert (1833 to 1886), a French physiologist and politician, embraced the power of ideas to improve lives. A consummate scholar, Bert first studied engineering, then obtained successive doctorates in law, medicine, and the natural sciences. During his final years of schooling, he worked as the great Claude Bernard's laboratory assistant for 16h a day. Bert eventually succeeded Bernard as Chair of Physiology at the Sorbonne and published his magnum opus, *La pression barométrique*, in 1878. Long called the “Bible of aviation medicine,” the book included a glorious exposition of the relationship between atmospheric pressure and oxygen tension within alpinists, balloonists, and divers—people who worked at extreme heights or depths. Bert would soon apply this knowledge to anesthesia. As nitrous oxide ( $N_2O$ ) could induce unconsciousness at 1 atm, the gas had to be delivered in pure form under normal-pressure conditions. Seeking to prolong  $N_2O$ 's sedative effect while preventing asphyxia, Bert proposed using a hyperbaric chamber to deliver a  $N_2O$  and oxygen ( $O_2$ ) mixture. Inspired by Bert's ideas, Parisian surgeon Fontaine built a traveling operating room (*image above*) that fit up to 12 people and provided  $N_2O$ - $O_2$  anesthesia for 27 surgeries within 3 months. A large hand pump (“A,” *right*) controlled the delivery of the anesthetic mixture from a storage cylinder (“C,” *right*), through a hose, and into a face mask within the chamber (“E,” *left*). (Copyright © the American Society of Anesthesiologists' Wood Library-Museum of Anesthesiology. [www.woodlibrarymuseum.org](http://www.woodlibrarymuseum.org))

Jane S. Moon, M.D., Assistant Clinical Professor, Department of Anesthesiology and Perioperative Medicine, University of California, Los Angeles, California.