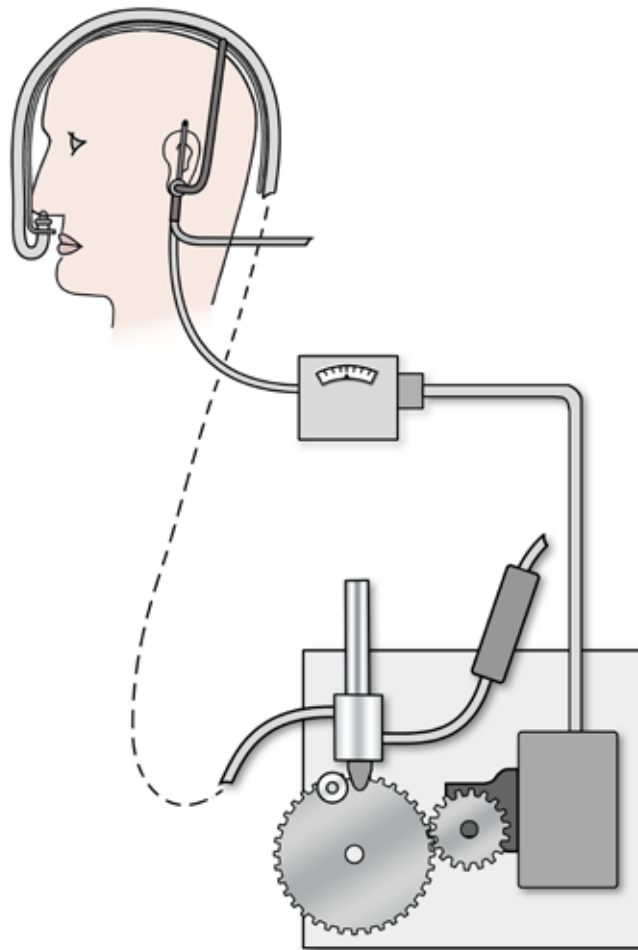


## ■ ANESTHESIOLOGY REFLECTIONS

### Kirschbaum's Oxygen Content Controller



An inventor of devices for providing anesthesia and for patient monitoring, Detroit obstetrician-gynecologist Harry M. Kirschbaum (1900–1959) filed a U.S. Patent application on July 2, 1942 for his “Method and apparatus for controlling the oxygen content of the blood of living animals.” His apparatus incorporated a source for transmitting light through the subject’s earlobe to register whether blood was currently “oxygenated . . . [to a] bright red color” or “darker . . . [from losing] its oxygen content.” A photo-electric cell “exposed to this beam . . . with suitable amplifying and relay means . . . is adapted to operate a valve controlling the oxygen supply” through a nosepiece. Nearly 4½ years after filing this design, Kirschbaum returned from his World War military service to find that he had been granted U.S. Patent No. 2,414,747. Although originally “designed for use by aviators,” it could also be “adapted for use by hospitals . . .” (Copyright © the American Society of Anesthesiologists, Inc. This image appears in color in the *Anesthesiology Reflections* online collection available at [www.anesthesiology.org](http://www.anesthesiology.org).)

*George S. Bause, M.D., M.P.H., Honorary Curator, ASA’s Wood Library-Museum of Anesthesiology, Park Ridge, Illinois, and Clinical Associate Professor, Case Western Reserve University, Cleveland, Ohio. UJYC@aol.com.*