

About the Cover—2003 and 2004 CSA Bulletin

By Stephen Jackson, M.D., Editor

The 2003-2004 cover of the California Society of Anesthesiologists' *Bulletin*, entitled "Masking Consciousness," is a concealed, if not esoteric, exhibition of "flower power." It recalls the traditional use of curare as a poison on the tips of hunting arrows and darts by native Indians inhabiting the Amazon basin of South America. The gourd attached to the carrying case for the arrows holds the supply of curare paste.

The plant from which the alkaloid, tubocurarine (curare) is extracted is *Chondrodendron tomentosum*, a woody vine, as much as four inches thick at its base, and often climbing as high as thirty meters. The leaves of *C. tomentosum* are large and heart-shaped with a soft, silky underside of tiny white hairs. It blooms clusters of small, greenish-white flowers, and also produces an edible, bitter-sweet fruit revered for its medicinal properties, but which is not poisonous because curare is not absorbed through the gastrointestinal tract.

In 1936, the scholar-adventurer Richard Gill, in search of a relaxing substance that would treat spastic conditions in humans, led an incredible expedition into the jungles of Ecuador to obtain an ample supply of the hunting arrow's poison that natives extracted from *C. tomentosum*. He brought 25 pounds of this crude paste to the United States, and the pharmaceutical company, Squibb and Sons, purified the curare and marketed it as Intocostrin®. First deployed for ameliorating spastic disorders in children and as a "shock absorber" for electroconvulsive therapy, it ultimately landed in the hands of the Canadian anaesthetists, Harold Griffith and Enid Johnson, who established curare's neuromuscular blocking properties as an adjunct to general anesthesia. Publication of their astounding clinical results in 1942 launched a great revolution in anesthetic care, that of intense muscle relaxation for (especially abdominal) surgery under lighter (and safer) levels of general anesthesia.

The remainder of our cover portrays an anesthesiologist's hand holding a modern pediatric mask for the administration of general anesthetic vapors, as well as an older, screen-type mask that was used to provide inhaled ether anesthesia (also a Squibb product). The title "Masking Consciousness" was chosen because of its double-entendre. General anesthesia—by mask or other route—will render a patient unconscious and/or insensible to pain and emotional stress. However, with the advent of the use of muscle relaxants, such as curare, during general anesthesia it is possible—albeit extremely rare—for a patient to be paralyzed, but inadvertently awake (conscious)!