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382. SIMPLE PERCUTANEOUS METHOD FOR
IMPLANTATION OF ELECTRODES AND/OR
CANNULAE IN THE BRAIN. John C. Lilly. Natl.
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In an investigation of the psychologically active motivational systems in the brain we have been utilizing a method using "roving" electrodes implanted in the unanesthetized monkey (W. R. Hess, P. D. Maclean, J. C. Lilly). Our technique of implantation by hammering sleeve-shaped guides into the skull for these moveable electrodes apparently has not been used before and simplifies the problem of implanting electrodes in unanesthetized chronic preparations (W. R. Hess; Clark and Ward; J. M. R. Delgado; J. C. Lilly; R. G. Bickford; R. G. Heath; G. C. Sheatz; C. W. Sem-Jacobsen; P. D. MacLean). The method has been successfully employed in 2 monkeys (15 wk) and in 2 unanesthetized porpoises (6 days). In general, the implantation consists of hammering a hollow tube (sleeve) into the skull (beneath the skin and outside the dura) in a place and direction located by means of the Clarke stereotaxic machine. The electrode is pushed through the skin and subcutaneous tissues through the sleeve in the skull and hence to any desired depth in the brain. The present guides are formed of #20 (or #22) stainless steel hypodermic needle tubing and the electrodes consist of a #24 (or #27) hypodermic needle tube surrounding a teflon-insulated tungsten wire bared at the tip. When desired all electrodes and cannulas can be removed, leaving a minimal size self-closing and self-healing skin lesion. In the porpoise (which cannot be safely anesthetized) only local anesthesia is necessary for this type of implantation.