DOVE REFLECTING PRISM

9 home large. Tempered glass with special optical effects of blue color. 1 1/2" 35 units, $4.35 each. 3" 16 units, $9.00 each. Standard 1.5" and 3". Limited quantities, Limited quantities. Order from: HARRY ROSS

Scientist & Lab Apparatus
61 L. Rands St., N.Y. 7, N.Y.

AN AD OF THIS SIZE costs only $10.00 for a single insertion. Rates are considerably lower per issue for multiple insertions within one year. Circulation of SCIENCE NEWS LETTER is over 80,000 copies per issue and increasing steadily. Send us your "copy" instructions now, for the next issue.

ANATOMY

Man's Will Can Control All Voluntary Movement

▶ MAN DOES NOT have to practice yoga to control tiny, isolated muscle contractions of his body.

With the help of visual and auditory aids he can train his mind to control the brain's unconscious isolation and control individual units that produce the finer body motions, such as twitches.

A Canadian anatomist injected electrodes by means of a hypodermic needle into primary muscles in the right hand of 16 normal persons. Every time the muscle contracted, no matter how slight the motion, it was recorded both visibly and audibly. By having the subjects control the motor units, the subject learned to relax one or more units instantly on command and to reactivate them at will.

Some obtained such fine control that they produced audible rhythms and drum rolls on the recording instrument, an electromyograph. Neighboring cells remained dormant while one cell was in use. A previous study dealing with the control of athletes showed that they have no better control than the average person.

Dr. J. V. Basmajian of Queen's University, Kingston, Ontario, recommended future studies to determine the relationship of voluntary dexterity and skills to conscious control of all voluntary muscle movements. The future studies may also help to expose the underlying mechanism of the spinal cord, he reported in Science, 141:440, 1963.

GENERAL SCIENCE

Rat's Body Electricity Powers Radio Signals

▶ RADIO SIGNALS have been generated using the electricity produced naturally by a rat.

The "broadcasts" have important possibilities for medicine and biology. Although nothing has yet been transmitted except a "busy signal" indicating the transmitter was operating, future devices could be used to transmit information from a human's interior.

Reducing the transmitter's size and adapting it for use inside an animal's body is now being undertaken. Within a few months, L. W. Reynolds of General Electric Space Sciences Laboratory at Valley Forge, Pa., hopes to have a miniature radio station established inside a dog, operating on power drawn from the dog's own body.

Future development is expected to yield many applications. Transmitters implanted inside human beings could send out information concerning the heart, nervous system, brain and various body processes.

Use of a transmitter of this type, which is harmless to body functions and produces no pain, would eliminate the need for short-lived batteries and cumbersome external attachments. This would be particularly valuable in space medicine and bio-physics.

ASTRONOMY—What is the summer triangle? p. 122.

BIOLGY—How do penguins add to the growth of algae in the South Pole? p. 119.

GENERAL SCIENCE—What is the grandaddy of lobbying organizations for scientists? p. 117.

MEDICINE—What is the more popular name for "housewives' dermatitis"? p. 128.


ZOOLOGY—What is the fastest-known reflex in nature? p. 121.

SCIENCE NEWS LETTER

Vol. 84 Aug. 24, 1963 No. 8

Edited by WATSON DAVIS

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N St., N.W., Washington 6, D. C. Telephones: TWX 7-2555. Cable Address: SCIENCESERV. Grace O'Kelley, 12 years, 2 yrs., $10.00; 3 yrs., $14.50; ten or more copies in one package to one address, 75¢ per copy per week; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage. Change of address: Three weeks notice is required. Please state exactly how magazine is addressed. Include postal zone number.


SCIENCE SERVICE

The Institution for the Popularization of Science organized in 1921 as a non-profit corporation.

Board of Trustees—Nominated by the American Association for the Advancement of Science: William W. Rubey, University of California at Los Angeles; Wallace R. Brode, Washington, D. C. (Treasurer); Douglas Whittaker, Rockefeller Institute for Medical Research, Nominated by the National Academy of Sciences; Horlow Shapley, Harvard College Observatory; Philip Board, Johns Hopkins University; Herbert Allen May, John Simon Guggenheim Memorial Foundation; Nominated by the National Research Council: Leonard Carmichael, Smithsonian Institution (President); John R. Dunning, Columbia University; Benjamin H. Willier, Johns Hopkins University. Nominated by the Journalistic Profession: Gordon E. Fater, Allentown (Pa.) Call-Chronicle, O. W. Kiegle, Washington and Lee University; Ralph B. Curry, Fortune, New York; the Scripps Estate: Edward J. Meenan, Newspapers Press-Scripps; Budwell, Denver, Wash.; Charles E. Scripps, Cincinnati, Ohio (Vice President) and Chairman of Executive Committee.