DR. ROBERT A. MILLIKAN made a public address at Southwestern College, Winfield, Kansas, on April 8, entitled "In the Coming Century."

DR. JEAN PICCARD and Mrs. Jeanette Piccard lectured on April 11 before the Lancaster, Pa., Branch of the American Association for the Advancement of Science. The lecture was entitled "A Flight to the Stratosphere."

DR. LOUISE PEARCE, fellow of the Rockefeller Institute for Medical Research, addressed the Western Reserve University Chapter of the Society of the Sigma Xi on April 8 on "Epidemiological Aspects of Vaccinia."

DR. THORNE M. CARPENTER, of the Nutrition Laboratory of the Carnegie Institution of Washington, lectured in Worcester, Mass., on March 12, at a joint meeting of the Worcester Polytechnic Institute Chapter of the Society of the Sigma Xi and the Worcester Chemists Club. The subject of his lecture was "Investigations of the Carnegie Nutrition Laboratory on Basal Metabolism."

DR. R. G. HOSKINS, director of research for the Memorial Foundation for Neuro-Endocrine Research at the Harvard Medical School, and Dr. J. M. Looney, director of laboratories for the same foundation, at the Worcester State Hospital, have been engaged in giving a series of lectures entitled "Recent Advances of Endocrinology" to the Somerset County Medical Society of New Jersey under the auspices of the New Jersey State Medical Society and the Rutgers University Extension Service. Dr. Hoskins spoke on February 15 at Skillman, New Jersey, and on March 1 at Morristown. Dr. Looney spoke at Marlboro, N. J., on February 22, at Trenton on March 8 and March 22, and at Skillman on March 15.

THE fifth annual meeting of the Field Conference of Pennsylvania Geologists will have its headquarters at the Academy of Natural Sciences in Philadelphia, May 31 to June 2. Registration and museum tours will take place from 9 A. M. to 12 M. on Friday, May 31, and at 2 P. M. the first of the trips will leave Philadelphia to observe the physiography of the Piedmont upland and the adjacent Coastal Plain terraces around Philadelphia. An alternative trip to localities of mineralogic and petrologic interest to the north of Philadelphia will also be conducted on that afternoon. On Saturday, June 1, the conference will leave the academy at 8 A. M. on a general trip through the crystalline and intrusive rocks of the Piedmont Belt in the Philadelphia area. On Sunday, June 2, they will leave at the same time to examine the lower Paleozoic formations and their relations to the pre-Cambrian rocks in the area west of Philadelphia. This trip will go as far west as Quarryville, which is the type area of the Martic overthrust. On Monday, June 3, a postconference optional excursion to the Coastal Plain of New Jersey will be conducted.

THE Special Libraries Association will hold its twenty-seventh annual convention in Boston from June 11 to 14 with headquarters at Hotel Statler. The organization has now a membership of over 1,600 trained librarians who manage the libraries of industrial concerns, research laboratories, banks, business offices, newspapers, museums, law, medical, scientific and other societies, as well as the specialized departments in large public, college and university libraries -in fact, any library devoted to one special field. The importance of trained library service to such special groups is now widely recognized and the Special Libraries Association devotes itself actively to the improvement of the methods and quality of such service. The program of the coming meeting includes visits to the special libraries of Harvard University, Massachusetts Institute of Technology and other special libraries in the Boston area, besides three general sessions and a large number of group and section meetings. The science-technology group, which includes librarians of several science libraries and of science departments of various colleges and universities, with a membership of over 200 will hold three meetings. There will also be opportunity for visits to historic shrines in and near Boston.

According to the London *Times*, Dr. T. E. Schumann, Johannesburg, chief Union meteorologist, will introduce at the Imperial Meteorological Conference in London in August a proposal in favor of the establishment of a meteorological station at Tristan da Cunha. With the support of the conference the Union Government probably will sanction the scheme and proceed with the proposal, which includes the provision of a wireless station for the dissemination of meteorological information. The estimated cost of establishing such a station would be £5,000. The experiment would be given one year's trial, but it is believed that it would mean such an improvement on the existing sources of meteorological data at the disposal of the Union that permanency would be justified.

## DISCUSSION

## PEARY'S DISCOVERY OF THE NORTH POLE

THE REV. J. GORDON HAVES has now since 1924 been writing books and pamphlets with the one object of discrediting Admiral Peary, the discoverer of the North Pole. In the length of such occupation he has been exceeded by another British writer, one W. Henry Leewin, who writes of his announced forthcoming book, "A Remarkable History of the Author's 25 Years' Effort to Establish the Truth of 'Peary' and the North Pole." So far as we are aware, Hayes printed his first attack upon Peary in the July issue of the Manchester Geographical Society in 1924. This was followed in 1929 by the book, "Robert Edwin Peary, A Record of his Explorations 1886–09," and now by "The Conquest of the North Pole" (Macmillan, 1935, 317 pp., ill.).

This latest book, like its predecessors, is a rare combination of misstatement of facts, of innuendoes, impugnment of motive, omission of vitally important facts, and citations by page of Peary's works, which when examined are found to be quite other than they are stated to be—but all treated with scholarly mannerisms and with an appearance of meticulous documentation which will probably deceive those without a background of knowledge of the subject.

One's first impulse is to ascribe all this to ignorance, but statements which can not possibly be explained away by carelessness make it necessary to conclude that Mr. Hayes's intent has been deliberately to mislead. An instance is the statement (p. 47) that Peary placed Dr. Cook's "Bradley Land" upon his maps preposterous and untrue.

The subject of the book has been curiously chosen, since its object is to show that the North Pole has not been reached, except perhaps by Dr. Cook, and through the air by Byrd in airplane, and by Amundsen in airship (these two explorers together are covered in the book by three pages of text).

The motif of the volume is in Chapter II ("The Sledge-Race for the North Pole"), ten pages of text intended to cover Peary's twenty-three years of Arctic effort and the faked trip of the notorious Dr. Cook, who is treated seriously and enthusiastically by Hayes, who devotes half the chapter to praise of him.

The entire geographical world now knows of the complete exposure in 1909–1910 of the Mt. McKinley and North Pole frauds of Dr. Cook, and his confession of his "delusion" published in January of 1910; but there are perhaps some not familiar with Cook's later career and particularly with his stupendous oil swindle, which involved tens of millions of dollars. For this in 1923 he was tried and convicted in United States District Court and sentenced to imprisonment in a Federal penitentiary for the term of fourteen years and nine months.

With this in mind there is humor of a sort in Hayes's approval of Cook's "My Attainment of the Pole" in these words: "This book as a whole bears the stamp of reality; . . . his word had never been doubted. . . Bradley Land, the most important discovery claimed by Cook . . . never appears to have been doubted (no one of reputation believes in it, nor does it appear upon any reputable map. W. H. H.), and Peary placed it upon his maps" (this is untrue. W. H. H.).

Again Hayes states (p. 48), "All that Peary submitted to the Royal Geographical Society were copies of some of his alleged observations." This slurring statement is obviously intended to convey the impression that Peary nowhere submitted his original observations to expert examination. Hayes's intellectual honesty thus suffers, since he knows that these original observations were submitted both to the committee of the National Geographic Society in Washington and to the distinguished experts, Mitchell and Duval, who reported to the Congressional committee, and it was upon their unqualified approval that Congress awarded Peary a vote of thanks and recommended his elevation in rank from Commander to full Rear Admiral in the United States Navy.

The Royal Geographical Society certainly did not expect that Peary's precious *original* records would be sent across the sea, and, apparently quite satisfied with the copies, they awarded Peary a *Special* Gold Medal which in the 105 years of the society's history has been awarded but four times (to Stanley, Nansen, Peary and Shackleton). The president of the society when conferring this unusual award made a remarkable citation:

It is on these grounds (the examination and approval of Peary's observations by experts) that I stand here to-night as the representative of the Royal Geographical Society, and, armed with the full authority of its Council, to welcome you, Commander Peary, as the *first and only* (italics not in the original) human being who has ever led a party of his fellow-creatures to a pole of the earth.

In discussing Peary's marches when returning from the Pole, Hayes says, "he said he did not ride (op. cit., 193-4, 250-1, also 199)." Not one of these eitations supplies any warrant for the statement made by Hayes, and we know from published statements by both Bartlett and Henson that Peary rode much of the way, as is in fact the custom generally when exceptionally long marches are made by dog-sled. The long daily marches of Peary on his return from the Pole, which have been attacked by hostile critics, had before been many times exceeded on sea-ice not only by Peary but by other explorers, as is known to all who have taken the trouble to examine the facts.

Since Hayes's treatment of the conquest of the Pole is limited to some fifteen pages in all, the remaining 300 pages of the book are given over to a summary APRIL 12, 1935

of Arctic and, almost entirely, British expeditions, none of which had anything whatever to do with attempts upon the Pole. The number of books of this character is legion, most of them written, like this one, by persons without experience in the polar regions. Some of them are certainly superior to that by Hayes, though some may possibly be worse. The strong British and anti-American bias of the author, combined with his apparent lack of intellectual honesty or of a sense of values, makes him peculiarly unfitted for a task which calls loudly for sanity of judgment and for some measure of an international view-point.

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## A STUDY OF THE RELATION OF THE RELATIVE SIZE OF THE TWO HANDS TO SPEECH

FROM a preliminary study of college students conducted last year at the State University of Iowa evidence was obtained which points to the conclusion that there occurs a difference in the volumetric size of the two hands. The hands of thirty-four normal speakers, twenty-four of whom were right-handed, were measured and it was found that 87.5 per cent. had larger right hands, while only 8 per cent. had larger left hands. Eight left-handed subjects were studied, five of whom were found to have larger left hands, with only one having a larger right.

Since there is assumed to be a lack of dominant lead in the stuttering person, if we further assume that the difference in the size of the two hands is due to development through use it might be expected that findings on normal speakers and stutterers would not agree. A similar study was therefore made of thirty-three stutterers who had shifted handedness not to exceed a year previous to measurement, but findings were similar to those for normal speakers. This group included twenty-seven cases who had used the right hand up to time of shift; 85.2 per cent. of these subjects had larger right hands, while only 7.4 per cent. had larger left hands.

By slightly altering the present technique and measuring a large number of cases it will be possible to determine with greater precision the quantity of difference for each person and then compare averages for each group. Further, it is the author's purpose to determine the cause of this condition and whether it is pre- or post-natal. If it is found to be the latter, attempt will be made—by studying children of various ages—to determine at what age these size differences occur.

CLARENCE R. VAN DUSEN UNIVERSITY OF MICHIGAN EDEMA AND GENERAL ATROPHY IN STENOSTOMUM OESOPHAGIUM

DISTENDED, abnormally large individuals have been found in certain cultures of *Stenostomum oesophagium*. An examination of these abnormal animals has led to an investigation of this condition, which has been termed edema. A study of the causes of edema in *Stenostomum oesophagium* is now being made.

The first step in this edema is the destruction of the main stem of the protonephridium. Morphological changes which follow the destruction of the main stem are the accumulation of fluid in the pseudocoel, the distention of the epidermis, the branching of the enteron, the migration of cells from both the epidermis and the enteron, the destruction of many of the elements of the parenchyma, the foreshortening of the capillary portion of the protonephridium and the addition to the number of the flame cells.

Certain factors, such as parasitism, light, temperature and hydrogen-ion concentration, appear to have little or no effect in producing the atrophy of the main stem of the protonephridium, the quantity of the food ingested seems to be the most important of the factors studied to date. Of 325 individuals of a clone, the members of which were fed abundantly, 284 died of edema; of 675 individuals of a clone, the members of which were fed only once a day, 46 died of edema. A study is being made of other factors that may determine the atrophy of the main stem of the protonephridium and the consequent edematous condition.

MARGARET HESS

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## BANG'S ABORTION DISEASE OF CATTLE

THE author, working at the Kansas Agricultural Experiment Station, has developed a strain of *Bru*cella abortus var. bovis which does not produce agglutinins following massive doses, although a thermal response is noted in each instance. Bang negative cattle remain non-reactors indefinitely to the standard agglutination tests (rapid and tube), following injection of this vaccine.

A live germ vaccine of this strain is readily absorbed without abscessation in all the experimental animals. No enlargement of the spleen is noted in guinea-pigs and rabbits.

Experiments are being planned to determine the protective and immunizing value of this product in cattle under simulated field conditions.