News of Science

Director Named for AAAS Science Teaching Improvement Program

The announcement that John Mayor has agreed to be the first director of the AAAS Science Teaching Improvement Program is very welcome news. The program to increase the number of well-qualified science and mathematics teachers is the culmination of the work of many groups, centering in that of the Cooperative Committee on the Teaching of Science and Mathematics. This committee has been in existence since 1941 and, since the close of World War II has been chaired by Karl Lark-Horovitz of the department of physics, Purdue University; Morris Meister, principal of the Bronx High School of Science; and John Mayor of the departments of mathematics and education, University of Wisconsin.

To carry out the program described at the beginning of this issue entails the cooperation of many persons, but it also depends upon some one person to see that it goes forward on all fronts, to coordinate the efforts of others, and to give administrative direction to the whole. As is the case for every important post, this person should have intelligence, vigor, and character, but for this particular position he also must be both a scientist and a person who has had intimate association with secondary education. Mayor, to a remarkable degree, satisfies these conditions.

Mayor is now 49 years old. He received his bachelor's degree from Knox College, his master's degree from the University of Illinois, and in 1933 his Ph.D. in mathematics from the University of Wisconsin; his field of specialization is geometry. During his graduate work at Wisconsin, he taught as a graduate assistant and after receiving his doctorate, continued at the university and its Milwaukee Extension Division until 1935, when he became chairman of the department of mathematics at Southern Illinois University. He returned to Wisconsin in 1947 as associate professor of mathematics and education in charge of the training of mathematics teachers. He was promoted to professor in 1951, again in both the department of mathematics and the department of education; he also served as chairman of the department of education. During 1954–55 he has been acting as dean of the School of Education, still retaining his professorship in mathematics. His teaching program has included courses in pure mathematics, courses in the teaching of mathematics for high-school teachers, and direction of the program of mathematics in the Wisconsin High School where he supervised practice teaching in the field of mathematics.

By nature Mayor is a gifted teacher; yet he has always shown, both by example and precept, that even the exceptionally able teacher can improve through deepening his knowledge of his subject and studying the methods for presenting it—illustrating the fact that a man reaches excellence only through a combination of talent and education.

He has written many articles, some of them research papers in mathematics, some mathematical exposition, and still others concerned with the teaching of mathematics. Mayor has a capacity for hard work and an enthusiasm that makes him enjoy it. This enthusiasm is not so much an ebullience of spirit as a keen desire to help attain goals that he believes are important. This not only has made him an outstanding success as a teacher at the university but has led him to serve on many committees for the improvement of scientific and mathematical education, to serve as officer of professional societies, including the presidency of the National Council of Teachers of Mathematics, to speak before state and local groups throughout the country, to serve as chairman of the Cooperative Committee, and now to be charged with carrying its program forward. I know of no one who would be more likely to carry such a program forward with vigor or to secure from others the cooperation necessary to its success.

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Do Ruminants Sleep?

The behavior of cattle and sheep has been carefully studied by a number of workers in recent years, and the evidence strongly indicates that these ruminants do not normally lose consciousness during either day or night. During digestion experiments with cattle, C. C. Balch [*Nature* **175,** 940 (1955)] observed that the animals never appeared to sleep and always used the same lying position. Throughout the night, periods of lying resting are interspersed with periods of standing and of rumination. Therefore, if sleep occurs at all in cattle, it must be of the polyphasic type. As a result of his studies, Balch concludes that, under normal conditions of management, healthy adult cattle and sheep, and probably ruminants in general, sleep little, if at all. He suggests that this ruminant peculiarity may be related to the need for upright maintenance of the thorax in proper functioning of the reticulorumen and to the requirement of time and consciousness for rumination.—W.L.S., JR.

Marine Chemistry

In 1953 our fishing industry found itself in an increasingly difficult position. Rising imports, decreased landings, depletion of fishing grounds, lack of modern techniques, and consumer indifference to American products, placed our fishermen in an unfavorable competitive position. In May 1954, Senator Leverett Saltonstall and Senator John F. Kennedy introduced a bill that provided that an amount equal to 30 percent of the gross receipts from duties collected under the customs laws on fishery products should be used to promote our domestic fisheries through biological, technologic, or other research pertaining to American fisheries. This bill, which also provided for the establishment of a Fisheries Advisory Committee, became Public Law 466, approved 1 July 1954.

The passage of the Saltonstall-Kennedy Act gave recognition to the importance of our marine resources and emphasized the significance of scientific