

tion with her husband, George Palmer Putnam, Miss Earhart reported making systematic aerial collections and notes on her equatorial flight. "Such a series of collections," said Mr. Meier, "taken with-

in a relatively short space of time from the air over the vast bodies of water distributed around the earth's circumference would be an invaluable contribution to our knowledge in this field."

Science News Letter, August 7, 1937

MATHEMATICS

Are You Buying a Car or Home? Then Think Mathematically

Many Involved Heavily in Installment Payments Are Unable to Figure the Interest They Are Charged

MATHEMATICS touches the life of everyone in the nation. The common thinking that mathematics is for the Prof. Albert Einsteins and other mathematicians of the world is costing the average man dollars each year in his purchases of a home, automobile or other things on the installment plan.

This is the warning issued in an interview by Dr. E. R. Hedrick, the well-known mathematician, now vice-president of the University of California at Los Angeles and formerly of Harvard University.

Most people have a dim realization that mathematics is somehow behind many of the marvels which the physical sciences and engineering have created: airplanes, radio, great bridges and the automobile.

The glorified uses of mathematics to these ends, says Dr. Hedrick, may perhaps blind one to the more humble uses it has in the life of everyone, everywhere.

"Buying things on the installment plan," notes Dr. Hedrick, "ranges all the way from the purchase of a radio to buying a house. It brings with it instantly the question of interest charges on money.

"If a purchase of \$100 involves the payment of five dollars down and five dollars a month for 22 months, few people can figure the rate of interest paid. Yet a reasonable understanding of such interest charges is within the power of every high school graduate.

Waive Tiresome Thought

"People are too prone to waive what seems to be tiresome thought and to accept vague statements in place of exact knowledge; many who are deeply involved in such installment pay-

ments do not know the interest rates that they are actually paying. I think they should know.

"Mathematical thinking really is the difference between having vague generalities and precise information. In the simple instance of automobile driving even a child knows that gasoline makes cars run. A beginning in mathematics has been made when one asks how many miles the car will go on a gallon of gasoline. The answer replaces qualitative information with quantitative fact and the moment this happens, mathematics begins to function.

"The next stage in mathematics rises," continued Dr. Hedrick, "when one realizes that a gallon of gasoline will carry the car different distances if the speed of the car changes. If this question is thought out, maybe by actual trial, one may find a best speed for economy in driving. Thus arises a prime mathematical thought: that there is a *best speed*. Such thinking is a simple instance of the idea of best performance in hosts of cases. Such ideas are present in many human problems, public and private.

For Good Citizenship

"The youth of the country should be given all the training that is possible in ways of mathematical thinking, not alone for their own sakes, but also for the best interest of society as a whole. To make good citizens, to vote intelligently, we should train young people not in vague generalities, but rather to think intelligently in quantities—at least to know that there are best solutions to most public and private problems that involve quantities.

"To say that accurate ways of thinking about quantities is not needed by the mass of the people seems to me to

● RADIO

August 10, 4:15 p. m., E.S.T.

THOSE ANTS—Dr. James Forbes of Fordham University.

August 17, 4:15 p. m., E.S.T.

WONDERS OF THE HEAVENS—Dr. F. R. Moulton, noted astronomer.

In the Science Service series of radio discussions over the Columbia Broadcasting System.

be foolish," said Dr. Hedrick in concluding. "To eliminate mathematical thinking from the training of our youth not only endangers their own lives and closes the door to them for comprehension of the achievements of modern science and engineering; it also endangers the safety of the nation whose public problems cannot be solved by an electorate incapable of mathematical thinking."

Science News Letter, August 7, 1937

AGRICULTURE

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Science News Letter, August 7, 1937

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