during the period of growth, the effects upon later life were very pronounced and showed that a liberal intake of vitamin A has a most important bearing upon the length of life and upon the general stamina of the adult as reflected in ability to resist disease and to produce and rear healthy offspring.

Thus our growing knowledge of vitamin A gives it a meaning very much broader than merely that of a substance which prevents an eye disease. While the relation to ophthalmia is well worth remembering, yet there now seems certainly to be a still greater significance in the effects of vitamin A in increasing resistance to respiratory disease and in contributing to the condition of general health and vigor, both in the individual and in successive generations.

To suggest the habitual use of any such term as "antiophthalmic vitamin" or "ophthalamin" seems, therefore, probably to put the emphasis in the wrong place, and certainly to be unfortunate in that it diverts attention to but a small part of the true meaning of vitamin A.

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THE SIEVE OF ERATOSTHENES

IN SCIENCE for September 21 (p. 273) a writer directs attention to the alleged "widespread error" of attributing to Eratosthenes the "sieve" for finding all the prime numbers which do not exceed a given number. The writer claims that the method was known long before the time of Eratosthenes, but does not state on what evidence his statement rests. He simply gives the information as a well-established fact and directs the reader to E. Hoppe's "Mathematik und Astronomie," 1911, p. 284. Consulting Hoppe one meets with the statement that the method is found in Plato's "Phaedo," chap. 52, and that Plato also proved the number of primes to be infinite, a proof usually ascribed to Euclid. *If true,* these statements are important and deserve to be published in a widely read periodical like SCIENCE. But are they true?

Hoppe's statement has not been fully accepted by any historian of mathematics. Plato in "Phaedo" speaks of hot and cold, fire and snow, as necessarily excluding each other. Likewise the idea of odd and the idea of three and of five are opposite to the idea of even and of two. They reciprocally exclude each other, as indeed do the immortal soul and death. This is not the place for extensive quotation from Plato. It is sufficient to say that it is not clear that Plato considers here prime numbers at all, as a class. The late G. Eneström, the very ablest recent critic in the field of mathematical history, printed in his journal a review by G. Junge who expresses himself on this matter as follows ("Bibliotheca mathematica," XII, 1911–1912, p. 356): "Mr. Hoppe is not at his best when he purports to discover in Plato's writings all sorts of mathematical results which no one before him has yet found in them and which probably no one will find in them again. Thus he claims (p. 284) that the sieve method of Eratosthenes is 'already fully developed by Plato' and that the theorem that the number of primes is infinite is found in Plato." No further comment on our part is necessary.

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THE PROBABLE USEFULNESS OF BLOOD-GROUPING TESTS IN ESTABLISHING NON-PATERNITY

IN connection with bastardy proceedings it is desirable that the defendant may know the chances of establishing his innocence by comparing his isohemagglutination group with that of the mother and of the alleged offspring.

We have calculated the probabilities which obtain among the white population of the United States. Details of the method will shortly be published elsewhere. The results, based upon the inheritance hypothesis of Bernstein, are as follows:

PROBABILITIES OF ESTABLISHING NON-PATERNITY WHEN ONLY THE WRONGFULLY ACCUSED MAN'S BLOOD GROUP IS KNOWN

Landsteiner	Group Jansky	Moss	Probabilities
0	1	4	1/5
A	2	2	1/17
B	3	3	1/7
AB	4	1	1/2
Unknown			1/7

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PRESSURE PHENOMENA IN THE DIVIDING CELL

MOTION photography reveals phenomena which do not register upon the physiological eye. Just as the microscope alters space dimensions, so may the motion camera accommodate time dimensions to a scale of normal interpretation, and thereby draw closer the relation of morphology to physiology. Evidence has, for example, been obtained by this instrument, which demonstrates the existence of defi-