now in the Peabody Museum of Harvard University and was collected by Messrs. Kidder and Guernsey. Also, in the Colorado State Historical Museum, are found specimens recovered by Dr. Paul S. Martin. The writer has been privileged to study these collections and finds numerous specimens of *C. moschata* and *C. pepo*. In the instance of the Peabody collection, some of the specimens are quite ancient. According to Kidder they are from the Basket Makers, a culture antedating the Cliff Dwellers, and are regarded by him as belonging to the period 1500 to 2000 B. C.

Interesting material of a similar character has come to light in the explorations made by Mr. Neil M. Judd under the direction of the National Geographic Society at Pueblo Bonito, New Mexico. In this material fragments of stems and seeds are found which are identified by Dr. C. V. Coville as *C. pepo* and *C. moschata.*

From the Everglades of Florida Dr. John K. Small has collected a plant of unknown origin which is running wild and is known as the Seminole Indian pumpkin, a variety of *C. moschata.*

In the Guadalupe Valley of southern Texas occurs a cucurbit closely related to *C. pepo* which appears to be indigenous. L. H. Bailey collected specimens in its natural habitat which he identifies as *C. texana.*

The fact that *C. pepo* and *C. moschata* are indigenous to North America seems clearly established. The nativity of the third species, *C. maxima,* the squashes, is still in the dark, and we are in hopes that the archeologists may in time be able to throw light upon this subject also.

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STARLINGS IN OKLAHOMA

THAT the starling this winter invaded the state of Oklahoma may be of interest to some ornithologists and zoologists. The starlings have not been reported before this year for this state, but appeared in considerable numbers in Tulsa County in December, 1929, as reported by Miss Edith Force, of the Tulsa city schools. The birds appeared on the campus of the University of Tulsa at different times during the three weeks of cold weather beginning January 10. During this period, there was a snowfall of about twenty inches, and the thermometer reached the zero mark at different times. On the night of January 13, amidst a storm of snow and sleet, a starling flew through an open window of one of the dormitories where it was caught and identified the next morning. Dr. R. D. Bird, of the department of zoology, Oklahoma University, says that starlings appeared on the state university grounds and in the vicinity of Norman, Oklahoma, at the same time they were seen at Tulsa in January. The starlings left the above-mentioned communities when the cold weather broke up, during the first week in February, and so far as the writer knows, no one has observed them in this locality since.

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SCIENTIFIC BOOKS

Operational Circuit Analysis. By VANNEVAR BUSH, Eng.D., professor of electric power transmission, Massachusetts Institute of Technology. With an appendix by Norbert Wiener, Ph.D., assistant professor of mathematics, Massachusetts Institute of Technology. John Wiley and Sons, Inc., New York; Chapman and Hall, Ltd., London, 1929.

IT is now nearly fifty years since Heaviside introduced the shorthand operational methods associated with his name for the solution of circuit problems arising in telegraph and telephone engineering. The adoption of these methods by engineers has been relatively slow. This has been due partly to a lack of a compact, orderly exposition of the methods and partly to a natural aversion to the intellectual labor of mastering a novel discipline which appeared to offer a less rigorous alternative to classical methods which had to be mastered in any case as a preliminary to the understanding of the new tools. Those who were only occasionally faced with such problems could scarcely be expected to make an attempt at such a mastery.

The great expansion of the field of communication engineering in the last twenty-five years and the applicability of its results to other fields (notably acoustics) have, however, forced an intensive development of the mathematical tools available, in which increasing attention has been paid to the Heaviside methods so that a considerable literature now exists. The present work is, however, the first attempt to embody the subject in text-book form.

Professor Bush is to be congratulated on the success with which he has performed his task. The superposition theorem, the integral theorem and the expansion theorem are developed in a manner to bring out clearly their interrelations and their relative contribution to the direct operational procedure. The fundamental grounding of the Heaviside methods in the Fourier analysis and their relation to the