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BOTANICAL RESEARCH[1]

By Dr. H. L. SHANTZ
PRESIDENT OF THE UNIVERSITY OF ARIZONA

THE advancement of human knowledge should be regarded as a worthwhile and praiseworthy effort. Those lines of learning which concern themselves with an understanding of the world in which we live have contributed directly to the welfare of the human race. In this field botany has occupied a worthy place along with the sciences of zoology and geology, and more generalized subjects, such as geography and climatology. To understand and control the environment man must have developed the sciences of physics and chemistry with the help of mathematics. But man has lived successfully with little or no knowledge of the latter sciences and possibly with only a very limited and practical knowledge of zoology and botany, a knowledge in this field comparable only to that possessed by any herbivorous or carnivorous animal. But even uncivilized man soon began to use plants as medicines and charms and to recognize or ascribe special properties to the various species. This very meager beginning was about as far as human knowledge had progressed in eons of time before modern science was born. As Ortega has so brilliantly pointed out, modern science in the sense of physico-chemical knowledge of processes is the newest thing in the universe. In time it extends back barely a hundred years. In space, likewise, science is one of the rarest things in the universe, for it touches only a small part of the earth's surface and a small part of the world population, and Ortega asks: Can a thing so rare and so new be also ephemeral; can it drop out as quickly as it came in?

Beginning with the herbalists, who sought cures for human diseases, the interest in plants grew and a beginning was made in classification and in making a

[1] Address of the retiring vice-president and chairman of Section B—Botanical Sciences, American Association for the Advancement of Science, Boston, December, 1933.