which started in 1899 and extended to the late summer of 1904, large numbers of cattle were forced to browse on shrubs of all kinds and large herds came to the river to drink. As a result, the willows, shrubs, etc., along the banks of streams, were practically killed off. Large numbers of cattle died from starvation, and when the drought broke the unprotected banks of the streams melted away like sugar, until the channel reached the mammoth proportions of to-day.

As to the San Simon, I do not recall being told about the small channel being dug by the settlers; however, in 1900 San Simon Wash, within the present irrigated district, was not over 12 or 15 feet wide by 2 or 3 feet deep. Out on the "Mesa," just outside the irrigated district, there were two or three well-defined cattle trails made in going to and from water in the Gila, but the area was so smooth that one could cross anywhere with a team and buckboard. These cattle trails were soon formed into small arroyos and are to-day as described by Mr. Bryan.

It has been my observation, from what would be learned from the "old timer," that arroyo cutting started, in most cases at least, by overgrazing, since in almost every instance they claim that these arroyos did not exist at the time of the introduction of cattle.

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EVOLUTION AND THE UNIVERSITY OF NEBRASKA

THE New York *Times* of November 29, 1925, quotes Professor Henry Fairfield Osborn as saying in an address before the science section of the Association of Colleges and Secondary Schools of the Middle States that "in a recent journey through Nebraska he learned that even in the state university there was a 'hush' at the word (evolution)" and that "no teacher in the whole state of Nebraska is entirely free to be sincere, but is more or less obliged to dissemble his real beliefs." We do not know the source of Professor Osborn's information but wish to state emphatically that his information is absolutely erroneous and unrepresentative and therefore misleading and unjust. In the state university, from the chancellor down to instructors, there has never been a "hush" on the freest discussion and most open teaching of evolution.

In a recent address before a large religious body Chancellor Avery said, "I am an evolutionist" and "there is no inconsistency whatever between Christianity and evolution, and when linked together they can do marvelous work for the kingdom of God." In an interview in the Omaha *World Herald* of May 22, 1925, the chancellor stated that "at the state university evolution is taught as a theory, not as a dogma."

The departments of botany, geology, sociology and zoology teach evolution with the utmost freedom.

Professor E. H. Barbour, head of the department of geology and a close friend of Professor Osborn, says that "in the geology department our only solicitude is for truth. We take facts as we find them. We hold that the truth is sacred above all things." Professor Barbour gives a lecture on evolution each semester before some two thousand freshman students.

The department of zoology teaches evolution in every course and offers a special course each semester to a large group of students under the specific title of "Evolution."

We recently addressed a large group of science teachers of the state on the subject "Evolution an Inspiration." All members of the university faculty from the chancellor down hope that evolution may be kept out of controversy and left in the realm of scientific truth.

FRANKLIN D. BARKER

UNIVERSITY OF NEBRASKA

SCIENTIFIC BOOKS

SOME RECENT BOTANICAL PUBLICATIONS

THE multiplication of general text-books on botany seems likely to continue until each university is represented by such a text. This arises from the fact that conditions of instruction vary so widely that instructors are compelled to adjust their presentation of botany to the local situation. When this is successful, it is likely to result in another text-book. Attention may be called to two recent illustrations of this fact.

At the University of Wisconsin, six botanists have cooperated in the preparation of a general text.[1] The authors are not differentiated in the text, thus segregating the various fields of botany, but have treated botany as a unit. For example, structure and function are so intimately associated that morphology and physiology are not segregated. In making such a composite presentation, the cell is first considered as the unit of structure and function, and this is followed by describing its combinations and activities in the various organs, leading up to a synthetic view of the plant as a whole. Following this presentation of the plant as a working organism, the great groups are considered, from algae to seed plants. The volume closes with a presentation of evolution and heredity and finally a consideration of the economic

[1] Smith, G. M., Overton, J. B., Gilbert, E. M., Denniston, R. H., Bryan, G. S., and Allen, C. E., "A Textbook of General Botany," The Macmillan Co., New York. 1924.