something to give to the East. Fathers Gerbillon and Pereyra brought two pounds of cinchona bark from South America and in 1692 cured the Chinese emperor of malarial fever. From that time on the Chinese were desirous of obtaining western physicians. Quinine and smallpox-vaccine were imported. English and Russian physicians arrived and finally Americans. In 1834 Peter Parker "opened the doors" of China by the introduction of medical service. In 1854 Dr. Hobson successfully employed chaulmoogra oil in leprosy. In 1898 Dr. Kerr gave western medical service to the first patient in an insane asylum in China. In 1904 the University of Pennsylvania established a medical department in Canton Christian College. In 1906 the Peking Union Medical College opened. In 1908 the Yale Mission hospital at Changsha was opened. In 1912 the Harvard Medical School at Shanghai was amalgamated with St. John's. In 1915 the China Medical Board assumed support of Peking Union Medical College.

The "History of Chinese Medicine" is written by Wong and Wu in a classical manner. The Chinese ideograms are reproduced in clear type and the book is indispensable to the student of the history of medicine. One is impressed with the principle, which is as true to-day as it was in the past centuries, that too prolonged adherence to an idea is not very fruitful and that Chinese medicine was greatly retarded by adherence to alchemy.

A list of 26 Chinese medical and pharmaceutical journals is given. No reference to Ma Huang or ephedrine was found.

J. F. McCLENDON

ECOLOGY OF THE PRAIRIE

MESSRS. J. E. WEAVER and T. J. Fitzpatrick, of the University of Nebraska, in their recently published study, "The Prairie"[1] supply a most valuable account of this plant community in the United States. Professor Weaver, with the help of his advanced students, has for many years been making studies of grasslands, his work on root systems especially attracting the interest of plant ecologists. In previous papers the climatic and edaphic conditions of the prairie region were described, and the autecology of dominant grasses was fully considered, hence the present monograph, omitting these topics, can and does give in 185 pages a systematic survey of the vegetation itself, its "types," minor communities, the components other than grasses, seasonal aspects, physiological activity, invasion and succession. In all, 135 representative areas of prairie were examined; these are scattered from South Dakota and Minnesota through Nebraska, Iowa and Missouri into Kansas.

The authors conclude that climax prairie is a closed community. There being no open ground for establishment of seedlings, the reproduction is largely vegetative; all the dominant and nearly all the subdominant species are perennials; root systems of different species extend to various depths in the soil, so that the soil water is fully used; layering of subaerial parts secures utilization of available light; rapidity of growth and early maturity characterize the vegetation as a whole, evidently associated with the abundant sunshine throughout the growing season, together with sufficient moisture and high temperatures in June and July.

Two consociations are especially important and wide-spread, dominated respectively by the bluestem grasses, *Andropogon scoparius* of upland areas and *Andropogon furcatus* in moister lowlands. Other grass communities are characteristic of certain edaphic situations: *Spartina michauxiana* Consocies in poorly drained soils; *Panicum virgatum-Elymus canadensis* Associes in soils somewhat less soggy; *Stipa spartea* Consociation, a bunch-grass community chiefly of the northern and western prairie districts; *Sporobolus heterolepis* Consociation, locally developed on drier hilltops. Typical quadrats show that about 96 per cent. of ground cover is made of grasses and usually less than 4 per cent. is composed of "forbs," *i.e.*, non-grasses. Of the latter the following genera are of most consequence: Achillea, Amorpha, Antennaria, Artemisia, Astragalus, Aster, Erigeron, Helianthus, Petalostemon, and Solidago. Excellent half-tone illustrations are given of these and others.

The authors are to be congratulated upon producing a readable as well as authentic account of one of the great vegetation areas of the world, one which in a few years will no longer be available for study because of man's invasion. Perhaps Messrs. Weaver and Fitzpatrick have not said the last word about the prairie, but they have described it with fullness and accuracy.

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[1] *Ecological Monographs*, 4: 109–295, 1934.

THE AUTOMOBILE AS A DESTROYER OF WILD LIFE

THE toll of wild life taken by the automobile on our public highways is far greater than one would naturally estimate. Last summer, while returning to Massachusetts from a motor trip to Iowa, records were made of the wild life lying dead in the highway.

The summer was exceptionally humid, and many animals, more especially turtles, were searching for water. More dead animals were observed in the highway on the trip out than on the return, since rain had fallen in the interim. On a highway extending 100 miles in Ohio, there was an average of one dead rabbit recorded for every mile traveled by auto.