dents' Room will be established as soon as possible in the Assyrian Basement, which will remain closed to the general public. Of the objects thus removed from exhibition it will be possible to exhibit only a few in other parts of the building. Two cases of special interest, containing the Oxus Treasure and the Nimrud ivories, will be placed in the Front Hall. Other select cases will be placed in the new Babylonian (old sixth Egyptian) Room as soon as that is available. All other antiquities from these galleries will be stored, and it will not be possible to supply information, make photographs, or permit inspection of them during the period of reconstruction. These works are expected to take not less than two years.

DISCUSSION

THE HISTORY OF CHINESE MEDICINE[1]

THERE is more and more evidence appearing that the silk route from China, although safer in the days of Marco Polo, was never absolutely closed for long periods, although Mohammedans extracted most of the profits from caravans a large part of the time. From China Europe learned not only of printing, the compass, gunpowder and firearms, silk and porcelain, but also alchemy, the deep breathing and exercises now taught in physical education and the diagnosis of disease by means of the pulse. The reason that Europe knew so little of Chinese medicine was not that China was physically isolated, as was Japan, but that Europeans could not read Chinese. The use of alphabets spread over Asia all the way to the Pacific Ocean. Only one people resisted this advance and that was China; whereas Tibetans, Mongolians, Manchurians and Koreans had alphabets. Chinese have always looked upon alphabets with contempt, and "scholarship" in the entire Far East is inseparable from the knowledge of the Chinese characters. It is, therefore, very convenient for us that Wong and Wu have written the "History of Chinese Medicine" in English. Their history is divided into two books, first, that of Chinese medicine and, second, the penetration of western medicine into China. The distinction between Chinese medicine and western medicine was not so great in its early practise, since the basis of most of it has been blood-letting and the administration of herbs and the use of surgery, including anesthetics, but western medicine is entirely different in regard to diagnosis and particularly in the application of scientific discoveries to practise.

BOOK I

Shen Nung 2838 B. C., the founder of Chinese medicine, is described as a student of pharmacology. He experimented on the effects of drugs on himself. The record of these experiments is compiled in Pen T'Sao, but the editing of an edition of the Pen T'Sao on bamboo is attributed to Huang Ti, 2698 B. C. The characters were arranged in vertical columns, due to the shape of the bamboo. In 651 B. C. the use of a soporific potion in surgery is described. In A. D. 7, Wang Mang orders court physicians to study human anatomy. Smallpox is recorded first in A. D. 49. Chang Chung-ching, 168, greatly advanced medicine by studying the cathartic action of bile and made vital statistics of typhoid fever. In A. D. 180 infection with tapeworm is attributed to eating of raw meat. In A. D. 221 the system of physical exercises is elaborated by Hua T'o and, besides the old soporifics, other anesthetics are described. In A. D. 265 Wang Shu-ho publishes the Mo Ching or pulse-classics. If the pulse was like the snapping of a cord (hyper-tension) death in four days of kidney trouble was predicted. In A. D. 443 medical schools were established, and in 502 Tao Hung-ching published Ming I Pieh Lu, the first official pharmacopœia of China.

Notwithstanding all these advances in medicine another tendency developed. In the centuries just before Christ the idea of the philosopher's stone and the Great Elixir of Life took shape. Alchemy was developed and finally spread to Europe and stifled European medicine as well as Chinese. These alchemical ideas were elaborated into what is called taoism, which dominated China until the modern era. Notwithstanding the shadow of taoism some new observations are recorded, but not particularly elaborated, with the exception of one, which was the inoculation against smallpox discovered about 1063 and which was adopted by Europeans and even spread to America. Wong and Wu state that the use of thyroid gland for goiter is recorded in A. D. 627, but no particular attention was paid to this fact. Tung Chi wrote a monograph on beri-beri in 1078, but Wong and Wu do not tell of any method of prevention.

The evidence is considered conclusive by American studies among the Maya Indians that syphilis was carried to Europe from America. It did not take it long to reach China from Europe, as it is described in Canton in 1505. The Europeans bringing syphilis also founded hospitals, the first being the Misericordia Hospital in Macao in 1569.

BOOK II

With the advent of the Portuguese and Spaniards, Jean Terrentius, 1621 to 1630, published a human anatomy in Chinese, but it remained for two Catholic fathers to persuade the emperor that the West had

[1] By K. Chimin Wong and Wu Lien-Teh, The Tientsin Press, Ltd., Tientsin, China, 1933. 706 pages; 92 illustrations.

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.