

## SCIENCE:

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Attention is called to the "Wants" column. It is invaluable to those who use it in soliciting information or seeking new positions. The name and address of applicants should be given in full, so that answers may go directly to them. The "Exchange" column is likewise open.

## THE LOCO-WEED.

BY W. THORNTON PARKER, M.D., GROVELAND, MASS.

THE locoplant is regarded by Professor Gray, of Harvard University, as the *Astragalus legum*, a peculiar species of the vetch tribe, abundant in the region of the "Texan Panhandle," and agreeable to cattle and horses, but, after having been used for some time by the latter, causing a special madness; hence its name, from the Spanish "loco." As a food its use renders horses valueless, and these seem to suffer most from this plant. It seems to have for them the fatal attraction that opium has for too many human beings. It has not yet been proved that cattle suffer very much, if at all, from this poisonous plant. Dr. J. W. Carhart, in a communication to the *New York Medical Record* concerning the symptoms and etiology of this curious affection, states that "The prominent symptoms seem to be due in part to a loss of muscular co-ordination; the horses become weak and staggering, and a slight blow on the head of an affected animal causes him to rear and fall over backwards. The animal falls away in flesh, and its coat loses its shining appearance, the hair becoming rough and of a dirty color. The brain as well as the spinal-cord would seem in certain cases to be affected, as it is stated that the animals often become absolutely crazy." The symptoms of the disease, as I have described them in a contribution to the same medical journal, agree perfectly with this description of Dr. Carhart's.

While serving in the Medical Department of the United States Army in Texas and New Mexico, I had ample opportunity to witness the poisonous effects of this plant on horses. I procured many excellent specimens, without any difficulty, and sent them to the Smithsonian and other institutions in this country and Europe. The weed does not grow as high as has been stated; it rather clings to the ground, resting upon it like a flat green mat, about the size of a small plate. Even in winter, when the grass all about is shrivelled and brown, this plant presents a bright velvety appearance, readily attracting the attention of horses and other animals, who eagerly devour it. It is very important that some investigation should be instituted, with a view of inaugurating a successful treatment for this disease. Anyone who has witnessed the actions of a locoed horse must have arrived at two conclusions; first that human beings are on account of its peculiar manifestations exposed to great bodily danger; a locoed horse without any warning starting over dangerous

places or into deep water—in other words, without warning becoming unmanageable. The other conclusion is that a disease whose cause and symptoms are so obvious and well known ought to be amenable to treatment. My own observations and experiments have convinced me that the use of the muriat tincture of iron, and in fact one or two other drugs, with the accessories of hygienic treatment, will, if taken in time, act favorably upon the animals affected. "In view of the evident importance to the economical interests of that portion of the country," I think that the Government should make the necessary experiments. Referring again to my article in the *New York Medical Record*, "The symptoms of the disease, as well as the description of the plant which is the apparent cause of them, recalls the accounts given by various French and Italian writers of lathyrism. This affection presents the symptoms of a spastic paralysis of the lower extremities, the individuals having a remarkably ataxic gait. The sensibility of the skin of the lower extremities is greatly increased; there is exaggerated patellar tendon reflex, and the ankle clonus is excited by the slightest movement of flexion of the foot. The plant, to the poisonous effects of which lathyrism is attributed, is also a species of vetch, the *Lathyrus cicera*. The disease attacks chiefly men, but horses have also been known to be affected. Vision seems to be disturbed in grass staggers, but in lathyrism the eyes are unaffected. The poisonous principle of the lathyrus has not been isolated, but experiments upon animals would seem to show that it resides in the healthy plant, and not in a mildew."

Lathyrism appears to be a curable disease. It sometimes subsides spontaneously when care is taken to exclude the vetch from the diet of the patient, and its disappearance may be hastened by the administration of bromide of potassium in large doses. Revulsive applications to the spine are said also to be beneficial. Possibly a similar plan of treatment for "locoed" ponies might be followed by good results, although there would be some difficulty in weaning them from their fondness for the poisonous weed.

—At the meeting of the Chemical Society of Washington on Jan. 11, 1894, the following officers were elected: President, Dr. W. H. Seaman; Vice-Presidents, Mr. A. E. Knorr and Professor Charles E. Munroe; Treasurer, Dr. E. A. deSchweinitz; Secretary, Dr. A. C. Peale; additional members of Executive Committee, Dr. H. W. Wiley, Professor F. W. Clarke, Professor R. B. Warder and Mr. F. P. Dewey. The following papers were read: "On a Supposed Synthetic Sucrose, with Description of Process of Making," by Dr. W. D. Bigelow, and "The Differentiation of Fats," with illustrations by Dr. Thomas Taylor. The meeting of Feb. 8 was devoted to the annual address of the retiring President, Mr. F. P. Dewey, on "The Aluminium Age."

—Those who have read Dr. Charles C. Abbott's "Recent Rambles" will need no urging to take up his "Travels in a Tree-Top," shortly to appear from the Lippincott press. Whether he tells us of what he finds in the top of a tremendous oak, or of what he sees from his high perch among the leaves; whether he narrates amusing stories about corn-stalk fiddles and a Quaker grandfather, or the kitchen door of his old home in boyhood times; whether he describes for us a dinner among the Indians before Columbus "arrived," or reminds us how the bees and buckwheat of August develop into honey and buckwheat cakes for these cool mornings—he is equally genial and charming. The volume is to be printed on fine paper and in outward appearance will be both rich and dainty.