orchards during and immediately after spraying, especially as no animal would eat the sprayed grass exclusively. To test this fully, I sprayed a large tree over some bright tender grass and clover. I then cut the clover carefully, close to the ground, and fed it all to my horse. It was all eaten up in an hour or two, and the horse showed no signs of any injury. This mixture, remember, was of double the proper strength, was applied very thoroughly, and all the grass fed to and eaten by the horse. This experiment was repeated, with the same result. I next secured three sheep. These were kept till hungry, then put into a pen about a tree under which was rich, juicy June-grass and clover. The sheep soon ate the grass, yet showed no signs of any injury. This experiment was repeated twice, with the same result. It seems to me that these experiments are crucial, and settle the matter fully. The analyses show that there is no danger: the experiments confirm the conclusion.

Thus we have it demonstrated that the arsenites are effective against the codling-moth; that in their use there is no danger of poisoning the fruit, and, when used properly, no danger to the foliage, nor to stock that may be pastured in the orchard.

PLANT-LIFE OF ARABIA FELIX.

PROFESSOR SCHWEINFURTH, at a recent meeting of the Berlin Geographical Society, spoke of his journey to Arabia Felix, undertaken from November, 1888, to March, 1889, with the object of making botanico-geographical studies. Stimulated by a journey of the French botanist, A. Deflers, in the year 1888, Schweinfurth determined to make one of the chief objects of this journey to Yemen the obtaining of authentic specimens of a large number of the species of plants described by the Swede, Peter Forskal, the botanist of the Niebuhr expedition (1761), who, when barely twenty-seven years old, fell a victim to the climate after much ardent activity in exploration. For what reason the scientific world, considering the complete opening-up of this ancient land of civilization, has deferred so long the exploration of the country, it is difficult to understand; since Yemen, not only since the recent taking-possession of the country by the Turks, but for a long period, has been distinguished, above all other parts of South Arabia, for the safety of travel and the well-tested courtesy of the inhabitants towards Europeans. Several plants, useful to man and cultivated by him, have, through the medium of South Arabia, found their way to the civilized countries of the north. Some, like coffee, appear to have been converted here for the first time from their natural state into the service of man. In ancient times there were in the first place various fragrant substances exported from here. On that account the country was named, from the oldest dynasties of the Pharaohs down to the later Roman period, the holy land, the land of the gods. The Punt country of the old Egyptians is surely not only to be looked for in Africa, but denotes in the wider sense the territory on both shores of the southern part of the Red Sea. The designations "stair" mountain and "step" mountain, both in the old hieroglyphics as well as in Ptolemy and in the works of Arabian geographers, Yakut and Hamdany, refer especially to the terraced cultivated slopes of South Arabia, constructed with such a large expenditure of labor, while they possess no meaning if applied to the Somali country. The ancient Egyptians took special care of certain trees, which were dedicated to particular deities. Thus the sycamore-tree was consecrated to Hathor. From the oldest tombs found in the Pyramids, and belonging to the fourth dynasty, down to the latest lists of offerings of the Ptolemaic-Roman epoch, the fruit of the persea (*Mimusops schimperi*), the "aschd," appears as a continually recurring gift to the gods and to the departed. The tree was regarded as specially sacred, and was dedicated to the greatest god, Rê, the sun, and on numerous occasions the leaves and fruit of both trees have been brought from the tombs to the light of day. The foreign origin of the tree called *Persea* in the Grecian authors, not to be confounded with the *Persea gratissima* of to-day, as coming from Ethiopia, by which term Abyssinia as well as South Arabia may be understood, is attested by Strabo and Diodorus, and confirmed by the present widespread existence of wild-growing species. For several centuries the tree has entirely disappeared from Egypt. On the other hand, the sycamore, although only in a cultivated state, is still to be found in Egypt and certain parts of Syria. Schweinfurth has now discovered in Yemen in numerous places fig-trees, in the case of which he has proved botanically that these trees, called in the mountainous country *chanes*, and in the lowlands *burra*, are completely identical with the Egyptian sycamore. At the same time the traveller found, in the lowest mountain regions of Yemen, the *Persea* of the ancients growing wild; and it was there designated with the old Arabic name *lebbach*, which was known to the Arabian geographers of the middle ages. The *Mimusops schimperi* was formerly only found in North Abyssinia. With the disappearance of the tree in Egypt, for the protection of which the Emperor Arcadius made a special law, which is still preserved, there disappeared in later Egypt also the proper meaning of the name *lebbach;* and at the commencement of the last century the term was transferred to a species of acacia (*Albizia zebbell*) introduced from India, which is to-day the most widely spread tree in Egypt. In connection with the traditions inscribed on the ancient monuments, the fact that in Yemen to-day there are still species of trees growing wild, which several thousands of years ago and during a period of three thousand years were held in Egypt to be sacred as symbols of divine worship, throws important light upon the old relations subsisting between the two countries.

HEALTH MATTERS.

THE INHALATION OF DUST. — Dr. Kunze, in his inaugural thesis for the M.D. degree of the University of Kiel, publishes as a contribution to the diseases caused by the inhalation of dust a series of examinations of lungs so affected. In all these, as stated in a recent number of the London *Lancet*, dust was found microscopically; and, after chemical tests in the various anatomical and histological parts of the lungs and in the interior of the lymphatic vessels, numerous leucocytes were found covered with the dust. Being arrested in its progress, it causes inflammation, producing hyperplasia of connective tissue, especially where a dense network of lymphatic vessels exists. Dr. Kunze also proved that the degree of alteration in so-called "dust lungs" depends not merely on the quantity of the dust inhaled, but also on its greater or less morphological power of injuring the tissue. He concludes from his experiments that even the greatest alterations in these lungs — such as nodes, indurations, and vomicæ — are mainly produced by the inhaled dust, and that tuberculosis is only an occasional coincidence. The least serious alterations in the lungs resulted from the inhalation of lamp-black, the particles of which are very fine and little injurious; the most serious, from the dust inhaled by earthenware manufacturers and stone-masons. The lungs of a locksmith showed only a moderate hyperplasia of connective tissue, the dust consisting partly of the finest particles of iron. In a worker in oxides of iron the lungs were found full of small granules, and the morbid changes in the tissues were very considerable. The lungs of gold-miners were generally indurated and atrophied: the dust in these cases is exceedingly fine. Sand produced numerous circumscribed hard nodules and thick indurations. In cloth-manufacturers, the lungs, in spite of their contact with an enormous quantity of organic dust, presented but few indurations. In the lungs of two stone-masons, induration and tuberculous disintegration were observed: all the other lungs were entirely free from tubercles of any kind, — an observation which was verified by the absence of tubercle bacilli in the muco-pus in the vomicæ.

CONGRESS FOR TUBERCULOSIS. — The second congress for tuberculosis will be held in Paris during the latter part of July, 1890. Professor Villemin will act as president. The following questions are to be discussed: 1. The identity of human and bovine tuberculosis, also that of other animals; 2. The bacteriological and morbid associations of tuberculosis; 3. The isolation of tuberculous subjects; 4. The agents capable of destroying Koch's tubercle bacillus, with a view to the prophylaxis and therapeusis of the disease in man.

MEDICINE IN JAPAN. — In Japan there are thirty-one schools of medicine, one of dentistry, and two of veterinary surgery. The University of Tokio (the Imperial University) has over twelve hun-