epithelium is encountered. The lungs exhibit areas of hemorrhage into the alveoli, and in many of these there has been a desquamation of the alveolar epithelium. Sometimes the desquamated epithelial cells are quite normal in appearance, while at others they have fragmented nuclei. The collections of lymphoid cells around the medium-sized and larger bronchi show, however, more cells, the nuclei of which have suffered in this way.

The blood-vessels of the tissues generally contain fewer leucocytes in this instance than in those cases in which the bacilli were introduced beneath the skin. By the latter method an intense local inflammatory process is provoked, associated with the emigration of large numbers of polynuclear leucocytes. In the former, in which the filtrate, free from organisms, is used for inoculation, the local process is reduced to *nil*, there is no emigration of leucocytes, and the disease is general from its inception. This difference is sufficient to account for the occurrence of leucocytosis in the one and its absence in the other case.

It may be considered as established now that the toxic products and not the bacilli themselves invade the tissues in diphtheria. This fact would at once suggest that the general lesions (those produced at a distance from the seat of inoculation in animals, and the situation of the local process in human beings) were the effects of the soluble poison diffused through the body. Hence, it was desirable to demonstrate this assumption experimentally; and it is not unimportant to know that the lesions in the tissues produced by bacilli and the toxic principle on the one hand, and by the toxic principle alone on the other, are in perfect correspondence with each other. And, moreover, it would seem not to be superfluous to emphasize the occurrence of definite focal lesions in the tissues of the body, produced by a soluble poison circulating in the blood.

DESCRIPTION OF A SUPPOSED NEW SPECIES OF STORERIA FROM FLORIDA, STORERIA VICTA.

THE species of *Storeria* here to be described as new was found in the alimentary canal of a specimen of *Elaps fulvius*, which was taken on the banks of the Oklawaha River, Florida, by one of my students, Mr. H. T. Mann. The *Storeria* had been swallowed head first, and had been somewhat digested anteriorly, but the hinder half or two-thirds of the body had undergone little change. Sufficient traces of the cephalic plates were left to show that the latter were those of the genus *Storeria*, the loreal being certainly absent. About twenty-five of the anterior ventral plates were missing, but the number of these could be determined from the vertebræ there exposed.

The dorsal scales are in fifteen rows. When the scales of the middle of the back are compared under the microscope carefully with those of a specimen of *Storeria dekayi* of the same size, the former are plainly of a greater proportional width. Whether or not this will hold true in all cases I can not, of course, say. The ventral plates number 146, counting from the angle of the jaw. There are 60 pairs of subcaudal scales. The anal plate is divided. The total length of the specimen is 14 inches, of which 3 are tail.

The color is gray above, with a tinge of yellow. In the middle of the back are very faint indications of a clay-colored band. This occupies the median three rows of scales. The next row of scales on each side is occupied by an indistinct dusky line and by a row of black specks. These lie distant from one another about the length of two scales. Lower down on the sides the color becomes paler, but another dusky streak is seen lying partly on the lower row of scales and partly on the out-ends of the ventral plates. The belly is pale yellow, with a row of small, but very distinct, black spots along each side. There is a single spot on each end of each ventral plate, lying about half-way from the middle line of the belly and the outer end of the plate. A few smaller, irregularly placed spots are also seen. The under surface of the tail is plain yellowish white. *Storeria dekayi* sometimes has black dots on the abdomen, but they are irregularly scattered, or at most do not form rows the whole length of the belly.

This species appears to differ from *Storeria dekayi* in the smaller number of dorsal scales (15 instead of 17), in the greater proportional width of the scales, in the somewhat greater number of ventral plates, and in the presence of the two rows of spots on the abdomen. As to the number of ventrals, Mr. Samuel Garman ("Serpents of N. A.," p. 31) states that they vary from 120 to 138. He mentions, however, a specimen from Jalapa, Mexico, which had 145 ventrals. It is possible that the animal which I here describe as new is a specimen of *S. dekayi* with a smaller number of scales than usual, but until there is other evidence of this, it seems better to regard it as different.

From *S. occipitomaculata* my specimen differs in having a considerably larger number of ventrals and subcaudals than have yet been attributed to that species, in the presence of the rows of ventral spots, and in size. The relations of the specimen appear to lie evidently with *S. dekayi*.

The oviducts of the specimen contained a dozen eggs, each somewhat more than a quarter of an inch in length. The coverings of the eggs are extremely thin, from which I infer that the animal brings forth its young alive. This is the case with *S. dekayi*, and probably with the other species of the genus.

The specimen here described will be deposited in the National Museum at Washington. O. P. HAY.

Irvington, Ind., April 2.

THE HIGHER EDUCATION OF THE DEAF.

THE following letter was recently addressed to President E. M. Gallaudet of the National College at Washington, by Mr. A. L. E. Crouter, principal of the Pennsylvania Institution for the Deaf and Dumb:

PRESIDENT E. M. GALLAUDET, PH.D., LL.D.

My Dear Sir: Since my return from the meeting of the Board of the American Association to Promote the Teaching of Speech to the Deaf, held in your city in January, my thoughts have frequently recurred to a matter of much interest to the association, and, to my mind, of vital importance to your college work, namely, the introduction of oral methods in the instruction of a portion, at least, of the young men and women who come to you for a higher education than the primary schools of the country are able to afford them.

And, in venturing to address you formally upon the subject, I beg you to believe that I am not impelled by any spirit of captious criticism, nor by any desire to intermeddle with the affairs of your excellent and well conducted school, but simply and solely to suggest for your consideration a step which I sincerely believe will, if put into effect, greatly promote and extend the usefulness of the college whose affairs you have so long and so ably directed.

As you are aware, Mr. Greenberger, at our meeting in Washington, brought up the question of oral instruction (recitations) for oral students at Kendall Green, maintaining that, in a school supported by the national government, equal educational advan-

[1] From the Silent World.