

killed and other domestic animals bitten were kept in confinement. No person was bitten, and no case of rabies occurred among the animals confined. If this dog had rabies it was induced without inoculation, and, if not, which was probable, the difficulty of distinguishing between true rabies and a state of intense cerebral excitement will be appreciated.

The question of hydrophobia occurring in man by other means than the bite of a rabid animal is important in its bearings on the specific character of the disease and the preventive or curative inoculations of Pasteur. Here again the weight of evidence seems to be in favor of the specific theory, but there is sufficient on the other side to raise a grave doubt, to say the least.

Hartshorne says "there is good evidence to believe the disease may be communicated to man by the bite of animals not affected with rabies." Hammond reports two cases of hydrophobia caused by the bites of bitches in heat that were not affected by rabies and continued well afterwards.

They were never supposed to be rabid.

The bite of the small skunk, found so numerous on the western plains, seems peculiarly apt to be followed by hydrophobia.

The Rev. R. C. Honey, in the *Amer. Jour. Med. Sciences* for May, 1884, reports cases of the disease caused by the bite of skunks, and Assistant Surgeon John G. Janeway, U. S. A., in the *Med. Record*, of March 13th, 1885, reports a large number of such cases. Dr. W. Thornton Parker, in the same *Journal* of March 13th, 1886, makes a similar report, and says the bite of the skunk is more to be feared than that of the rattlesnake. It is not claimed that these animals are rabid. They prowl around and through the tents at night in search of food, and finding a toe, foot or hand uncovered, proceed to utilize it for that purpose. Dr. Parker says that so great was his fear of skunks that he always sodded around the bottom of his tent, and in addition to securely fastening the entrance at night, tied his dog to it, which was effectual in keeping the pests out. If the skunks had been affected with rabies they would probably have attacked the dog, which did not occur.

This view of the subject opens a field

for investigation, for it can be shown, as appears to be the case, that hydrophobia can be produced in man by the bite of animals not rabid, the theory heretofore accepted regarding its specific nature and method of propagation must be abandoned, and the conclusion forced upon us that there is a poison inherent in the saliva or secretions of the mouth of certain animals capable of producing the disease, or that it is developed in the same by conditions or circumstances not understood.

If not this, then it is a manifestation of tetanus, differing from the disease of that name only in the site of the lesion and its severity.

There have ever been men, some of them of eminence, who have denied the existence of such a disease as hydrophobia, declaring the one so-called to be a species of tetanus, and in support of that opinion point to the similarity of symptoms, and the fact that hydrophobia does not occur in persons bitten by dogs known to be rabid oftener than tetanus follows punctured or lacerated wounds of the extremities, the usual location of the bites of rabid animals.

It may be argued, also, that hydrophobia is either a specific disease or it is not; if it can be produced by the bite of animals not rabid, it is not; if not a specific disease, it is allied to tetanus, if not the same thing, differing in degree. The weight of authority is largely preponderant in favor of its specific nature, but a comparison of symptoms will show that those who claim the identity of the two diseases have at least some reason for their opinion.

In both diseases the symptoms point to the nerve centres as the seat of the lesion; in both we have early a sense of difficulty in deglutition which increases with the disease, terminating in laryngeal spasm. In both we have spasm of the voluntary muscles, which is increased or brought on by any cause that will excite reflex action, such as a touch of the body, sudden noises, a current of air coming in contact with the body, etc., and the fits may occur in either disease without these; in both we have a secretion of thick, tenacious mucus and saliva that adds much to the distress of the patient; in both the skin becomes hot and sensitive, and shows a decided rise in temperature. In tetanus the average duration is from three to five