

aversion to its use had little abated, and even in 1818 it was still prohibited in Norway. . . .

The fact that pearl disease was shown not to be identical with venereal-disease did not throw any light upon its real nature. Many opinions were put forward in regard to it; but all seemed to tend toward the conviction that it was either tubercle or sarcoma, or a substance *sui generis*, holding a place between these two. Twenty years ago I considered pearl-disease to be of the nature of tubercle, and my subsequent experiments have confirmed me in the belief that the two diseases are identical, and this opinion I have uniformly defended, although during much of the time I stood almost alone. There could be nothing more natural, therefore, than that I should experiment with the anatomical products of pearl-disease.

The inoculation with tubercular matter has been followed by the production of tubercles in the lymph glands and in the lungs, and often in the liver and in the kidneys. The experiments on rabbits and Guinea-pigs had apparently the same results. In these animals, disease that could not in any way be distinguished from tubercle was produced in the same organs by the traumatic process of inoculation. I myself have performed all these experiments with care, and extended them by the introduction of tubercular matter taken from cattle. I have inoculated with tubercular matter taken from men and from apes, and with the matter from cattle affected with pearl-disease, many dogs, a few pigs and a goat, and in every instance tubercles were produced in the lungs, and in some of the cases in the kidneys. In rabbits these experiments led to the formation of a thick cheesy matter at the point of inoculation, and of cheesy matter in the vicinity of the neighboring lymph glands, and to nodules in the lungs, which could not be distinguished from tubercle, but they were in small quantity. In all other experiments on animals—as horses, calves, sheep, goats and pigs—no appearance of tubercle was produced. . . .

It occurred to me that the proposition to be resolved experimentally was: Is there in tuberculosis a peculiar virus, or are pearl-disease and tuberculosis identical? and to determine this it seemed desirable to experiment without producing a wound or inducing suppuration. These experiments then led us to a third inquiry: whether the flesh and the milk of tuberculous animals, especially of cattle affected with pearl-disease, were injurious and unfit for food? a question of the gravest importance in a sanitary and industrial point of view. . . .

1. The following animals were fed with uncooked tubercular substance from cattle: five calves (heifers); four sheep; two goats; ten swine; one Guinea-pig; seventeen rabbits; one horse; four dogs. In all forty-four mammalia, and two doves.

Of the animals thus experimented on, thirty-six became more or less tuberculous, the greater number in a very high degree. One calf was attacked with severe diarrhoea in consequence of the feeding, and died from an aphthous condition of the mouth; in the horse the infection was doubtful; four dogs, three rabbits, and two doves were