to be found commencing colonies without any other elements than cocci, and many others showing a great preponderance of these.

A colony has its starting point in one or more cocci transported by the plasma [nutrient blood or lymph] currents or by the agency of a carrier cell. The cocci multiply by elongation and subsequent fission when undisturbed by the surrounding leucocytes [special blood cells which destroy —eat or digest—many forms of parasitic micro-organisms]. By elongations some of the cocci give rise directly to short bacillary forms and through these to long filaments. The further extension of the colony is affected by the growth and multiplication of both threads and cocci. The former multiply by segmentation into bacillary elements, which may again elongate. The formation of clubs and such forms is evidence of diminished vegetative power of the filaments (possibly also cocci) in connection with which they originate. The growth of a colony may be arrested at any stage by the agency of the animal cells (leucocytes), or by failure in the supply of the necessary pabulum. In that event the majority of the threads tend to develop clubs.

SITE AND NATURE OF THE DISEASE IN MAN AND ANIMALS.

The commonest site for the disease in bovine animals is the tongue, and it is believed to gain a footing in slight abrasions produced by certain kinds of fodder, especially by barley. Jensen, indeed, goes so far as to assert that the fungus grows on grain husks and straw of different cereals, but most abundantly on barley, which is also most likely to wound the mucous membrane. The most probable hypothesis is that the disease infects human beings the same way; this, as Prof. Crookshank points out, receives some confirmation from an observation of Soltmann's, as follows:

A boy aged 11, accidentally swallowed an awn of barley, an abcess formed in the throat, and when opened the awn was found in the evacuated pus; the abcess, however did not close, and the characteristic ray fungus was eventually discovered.

The British Medical Journal says: "There appears to be no question that Prof. Crookshank has succeeded in cultivating the ray fungus, thus confirming and extending the researches of Boström."

In the discussion which followed the reading of a paper on a Case of Actinomycosis Hominis, before the Royal Medical and Chirurgical Society, London, Eng., on Feby. 12th last, great stress appears to have been laid on the presence or absence of the club shaped bodies as indicating the identity or non-identity of the actinomyces found in man and in cattle. Prof. McFadyean in his paper says: The case I have just described proves beyond any doubt that these points ought to have little or no weight, for here, in the same tumour, many colonies show not a single club while in others they are numerous.

It is not, it appears, in bovines so serious or fatal a disease as tuberculosis, with which according to Prof. Brown, in a report to the Privy Council, it is particularly liable to be confounded, especially in the early stages. The British Medical Journal says: "There can be no doubt that bovine actinomycosis has been, up to quite a recent period, universally regarded as tuberculosis or scrofula, and that many veterinarians still fail to draw a distinction." It has, it appears, hardly been recognized in Canada, veterinarians here know hardly anything about it.

The case of the disease in a boy (brought before the Royal Med. and Surg. Society, in Feb. last, referred to above), presented the following history, as reported in the British Medical Journal of 16 Feb. The boy aged 9 was admitted into the Brompton Hospital for an insidious illness of four months duration, attended with hectic symptoms, slight cough, and painful swellings on the right side of the chest. He was of somewhat tubercular family history, and the son of a dairyman. The symptoms present were irregular fever, emaciation, slight cough, attended with pain in the right chest. There was enlargement of right side with local swellings, elastic and painful, and displacement of heart, with slight enlargement of the glands of the right axilla and neck. Incision into a swelling, which had become