The distribution of the organisms is of interest. Ehrmann (Deutsche med. Woch., 1906, S. 1115) in two cases of chancre, in which the prepuce was indurated and excoriated, found that spirilla could be demonstrated in the nerves of the skin and subcutaneous tissue. They were to be found in the lymph-spaces and connective tissue enclosing the nerve bundles, within the nerve sheath and even between the nerve fibres. The organisms could be traced for some distance centripetally along the lymphatics and lymph spaces, thus indicating the possible line of transmission.

Schlimpert (Deutsche med. Woch., 1906, S. 1037) has investigated this aspect of the subject in the lesions of congenital syphilis in the newborn. Spirochætes were found in great numbers in the interstices of the connective tissue, particularly in the neighbourhood of the vessels, in the walls of the vessels also, but rarely in the blood stream. An intracellular position is the exception. Buschke and Fischer (Berl. klin. Woch., Jan. 1, 1906.) also, in an earlier communication, had noted this relationship to the vessels. They found the parasites in the walls of the vessels attached to the endothelial cells, whence they could be traced into the surrounding tissues. In the skin lesions the organisms were found in great numbers, lying definitely coiled up both within and around the capillaries. The spirochætes, as numerous observations have shown, are practically universal in distribution. They are, as might be expected, found in greatest numbers in the liver, often, also, in the spleen, in the kidneys, in skin lesions, less abundantly in the blood. They have also been demonstrated (Schlimpert) in the stomach, mesentery, mesenteric glands, gall bladder, common bile duct, peripheral nerves, thyroid gland, thymus, tonsils, tongue, and buccal mucosa, in the heart muscle (Danziger, Buschke and Fischer), lungs and adrenals (Danziger). These various researches would seem to indicate that the infective agent in syphilis is carried from the point of entrance by the lymphatics into the nearest lymphnodes and eventually to the blood, whence it is spread to all parts of the body, finally localizing in the tissue spaces of many different structures.

In the case of tertiary lues, Tomasczewski (Münch. med. Woch., 1906, S. 1300) demonstrated, in five out of ten cases examined, the spirochæta pallida. The organisms were, however, very few and were only discovered after hours of work. This fits in, it may be remarked, with what we already know as to the infectiousness of syphilis in the tertiary stage.

It will, perhaps, be opportune at this point to refer briefly to other views in regard to the etiological factor in syphilis. Flagellated