

With this method the spirochæta pallida appears stained very distinctly blue, and seems larger than when stained by Giemsa's method.

This stain has the advantage of rapidity, taking only a few minutes, and is perhaps the best thus far suggested for clinical purposes.

*DeMarino's Method.*—This consists in staining the slide without fixation with one c.c. of Marino's blue (1-10 c.c. of Azur blue and fifty c.c. of methyl alcohol). The stain is allowed to remain on the slide for ten minutes, then, without washing, one c.c. of a watery solution of eosin (one part in fifty) is dropped upon the slide, and allowed to remain two minutes. The slide is then washed, dried in the air, and examined. The spirochæta is stained a faint orange pink. This method has also the advantage of rapidity.

The material to be examined under the microscope must be carefully obtained, and it is most important that the smears on the cover glasses be spread as thinly as possible. If it is desired to study ulcerative lesions, the surface should first be cleansed, after which the raw surface exposed should be gently rubbed with a platinum loop in order to secure a few drops of serum. The skin lesions—papules, pustules, and roseolous areas—are often rich in the organism. After cleaning the surface, a superficial incision is made with a scalpel or sharp needle and a drop or two of blood and lymph expressed.

In the case of mucous patches, the double sharp spoon may be used, removing with one spoon the superficial necrotic tissue and saprophytic organisms, and with the other scraping lightly the denuded surface—the deeper scraping will always be found to be of the most advantage, as it will often show a complete absence of all micro-organisms excepting the spirochæta pallida. The mucous patches of the mouth and throat would seem, from reported examinations, to contain the spirochæta pallida in good numbers, and thus to be especially suitable for demonstrating the organism.

In the deeper organs, the spirochæta pallida has been demonstrated less frequently, and while Hoffmann has succeeded almost constantly in finding the organism in the juice aspirated from enlarged lymphatic glands, others have been less successful. By using a needle of good calibre and moving it slightly to and fro in the massaged gland, and using a syringe of 5 to 10 cubic centimeters' capacity, so as to secure strong suction, a few drops of blood-stained gland juice can be obtained. Hoffmann suggests that this aspirated juice be ejected into a porcelain dish, preferably at two or three points, and the small whitish, rather than the reddish drops, chosen for examination, since they will contain the gland tissue in greater amounts. Hoffmann has obtained the organism from the aspirated juice of an enlarged submental gland in a case