to eighteen hours. Take a smear from the bacterial colonies, fix stain for half a minute in Loeffler's methylene blue, wash, dry and mount (Fig. 48).

Diphtheria bacilli outgrow all other forms of bacteria during the first eighteen hours if inoculated on Loeffler's mixture. This method therefore greatly facilitates their recognition.

IV. **THE SPIROCHETA PALLIDA** is present in syphilitic lesions, both primary and secondary. Films should be prepared from the exudate obtained from the lesion, or a blood film may be prepared and stained after fixing by Leishman's, Giemsa's, or Wright's methods.

(1) *Leishman's Method.*—A solution of eosinate of methylene blue in methyl alcohol is used as a combined stain and fixative. Stain film for two minutes then add a quantity of distilled water double the volume of the stain. This differentiates the ruby tint of the nuclei from the blue of the protoplasm. Allow to remain for five minutes, wash in distilled water, dry and mount.

(2) *Giemsa's Method.*—Fix smears for fifteen minutes in alcohol, stain for at least thirty minutes in the solution, wash, dry and mount. The slide should be fully immersed in the solution which should be freshly prepared.

Better results may be obtained by diluting Giemsa's stain with 20 parts distilled water and allowing the specimen to remain immersed for at least twelve hours.

(3) *Wright's Stain* (see page 329), or *Indian Ink* may also be used (Fig. 36).

V. **CEREBROSPINAL MENINGITIS** (Diplococcus Meningitidis Intracellularis).—Films are prepared in the same manner as in the case of the blood, from the