INVERTED MICROSCOPE "CH" FOR USE WITH THE MICRO MANIPULATOR



The Microscope "CH" has been constructed according to the suggestion of Professor Robert W. Chambers. By reason of the inverted construction of the microscope, the objective occupies a position beneath the stage, pointing upwards towards the coverglass while the drop of fluid rests upon the latter. Such a construction establishes conditions which greatly favor the technic of micro manipulation.

With the hanging drop method difficulty is usually encountered in the endeavor to obtain a large and at the same time flatly spreading drop. The latter should necessarily be large in order that it may not evaporate too rapidly, and it should be flat in order to restrict the range of motion of microbes within certain limits. In the hanging drop this condition can be realized within a certain degree by extremely care-

fully cleaning the coverglass with acids and alcohol. In comparison, the **lying** drop, however, spreads evenly without difficulty and remains flat.

In the Inverted Microscope "CH" the micro instruments can be manipulated above the coverglass and object. The condenser system with special illuminating lamp is attached to the upper portion of the microscope pointing downward towards the object under observation. A mirror may be introduced in place of the illuminating lamp for daylight illumination. To facilitate focusing the illuminating system, the bracket holding same is equipped with a rack and pinion adjustment.

The Microscope "CH," aside from brightfield illumination, is likewise adapted for darkfield and ULTROPAK illumination.