

the ends. The Lepra-bacilli also stain by Weigert's methods of staining, but the Tubercular-bacilli do not. On all points where the Tubercular process is of fresh origin and is advancing rapidly, the bacilli are present in great quantities; they then form ordinarily, small groups closely pressed together and often arranged in bundles, which frequently lie in the interior of cells, and in some places give exactly such pictures as the Lepra-bacilli. On the other hand there are abundant bacilli which lie free: especially at the edge of large caseous deposits there are almost exclusively groups of bacilli which are not enclosed in cells. As soon as the acme of the tubercular infection is past, the bacilli are not so numerous, and they are then found only in small groups, or even singly, at the edge of the tubercular deposit along with bacilli which are weakly stained and scarcely recognizable; apparently, these have either begun to die, or are already dead. At last, they may wholly disappear, though it is only very seldom that they are completely wanting, and then only in the places where the tubercular process has come to a stand still.

When giant cells appear in the tubercular tissues the bacilli generally lie in the interior of these structures. In tubercular processes which are slowly advancing, the interior of the giant cells is generally the only place where the bacilli can be found. In this case the majority of the giant cells enclose either one or a few bacilli, and it makes a striking impression to find over large areas of the section, ever-recurring new groups of giant-cells, almost every one of which contains in the wide interior space, surrounded by brown-stained nuclei, one or two exquisitely fine, blue-stained staves, seated almost in the centre of the giant-cell.

It is also possible to recognize the Bacilli unstained. For this purpose it is best to choose such places as contain the Bacilli in large numbers: we can take a little substance from a grey miliary nodule in the lung of a guinea-pig which has died of artificial tuberculosis, and examine it in distilled water or blood serum—to avoid the currents in the preparation it is better to use a hollowed slide, under these circumstances the bacilli appear as very fine rods with a molecular movement. Independent movement is entirely wanting in them.