

identified as distinct entities by one of three ways; clinical observation, pathological examination or bacteriological determination. Practically all the earlier work in the recognition of distinct disease was done by clinical methods and then came the application of pathology as seen for example in the separation of typhoid and typhus fevers. Lastly and much more recently came the distinctions due to the recognition of a definite causal organism by bacteriology. It is very evident that of these methods the last is the most certain and the most satisfactory, but necessarily is only applicable to certain diseases.

Now applying these to the solution of the problem concerning arthritis, and taking them in the reverse order, we find that thus far, while bacteriology has been of some help, it has failed us in certain forms of arthritis. Definite recognition of gonococcus arthritis, streptococcus arthritis, etc., can be cited as instances of a satisfactory solution. The second method by pathological examination can afford us but little aid, for arthritis in its various forms is a disease that rarely kills. Of course a certain number die in acute rheumatic fever, but these usually of cardiac complications, some time after the acute joint features have subsided, and then also the joint changes in acute rheumatic fever are of comparatively slight importance. The pathological examinations that are obtained in the chronic forms of arthritis are usually in patients many years after the acute features have subsided and the conditions found are not those of the disease itself, but of its results, a very different matter. Then again another difficulty is that many organisms cause similar pathological changes and one organism causes many different pathological conditions. Take for example the joint changes produced by the pneumococcus, the gonococcus and the streptococcus: so far as pathological anatomy is concerned these changes may be identical. A good example of various changes caused by one organism is seen in gonococcus arthritis; this may be nothing but a very slight inflammatory condition or there may be widespread destruction of the joint with all grades between these two conditions. Therefore, for the present at any rate, we are compelled to depend largely on clinical methods for the distinction between the various forms of arthritis, especially the chronic varieties.

As regards the question of classification of various forms of arthritis, we can tentatively recognize the following groups:

1. Those in which the causal organism has been definitely determined, such as gonococcus and pneumococcus arthritis. The position of this group is settled and requires no discussion. To these the term of infectious arthritis can be applied.

2. Acute rheumatic fever. At present it is best not to consider the etiology of this disease definitely established, although all the evidence