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THE SYNTHESIS OF ALKALOIDS.

BY

C. G. L. WOLF, B.A., M.D.,

Demonstrator of Practical Chemistry, McGill University.

The synthetical production of alkaloids has been a task which numberless chemists have set themselves to perform since the discovery of morphine, ninety years ago, and although in the matter of actual success in comparison with the amount of work that has been done, not much has been accomplished, yet the progress which has been made in the last two decades has been so great, that it is by no means without the range of probability that in the next ten years, many of those alkaloids which are to-day only to be obtained from plants will be the products of the laboratory.

Problems, such as these, which are of almost insurmountable complexity have not only the purely scientific aspect to induce work upon them, but also the enormous commercial importance which is attached to them, and one has only to remember the indigo synthesis of A. v. Bacyer from a nitro cinnamic acid to understand how a research undertaken to solve a question of constitution will revolutionize an industry which has, for centuries almost, been the exclusive producer of a necessary domestic compound.

In the first part of this century large numbers of plants were investigated and as a result a more than an equivalent number of alkaloids was found. It was only when the observers came to investigate the constitution, that they realised the enormous difficulties with which they had to contend.

The first step which threw some light on the subject was their behaviour on distillation; many gave pyridin or a compound allied to it, and it was hence believed that they were basic bodies which