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PREVIEW

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SOME 4-SUBSTITUTED DERIVATIVES OF 1,10-PHENANTHROLINE

by

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A THESIS

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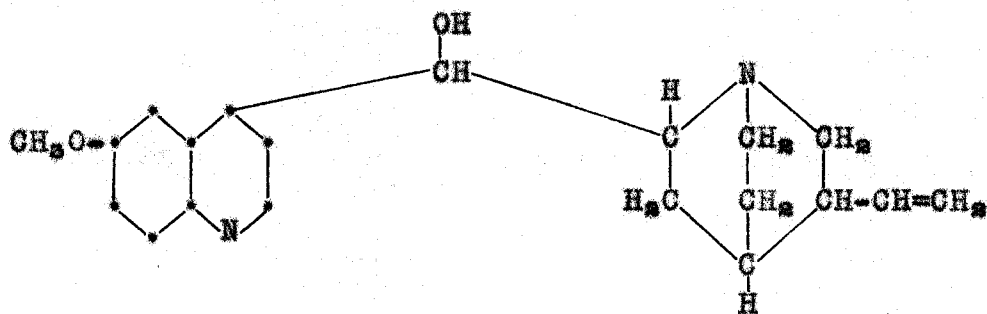
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PREVIEW

## I. INTRODUCTION

Malaria, the disease of millions, has since ancient times scourged mankind. Its evil effects extend beyond the tropics into the temperate zones. It is estimated that malaria attacks several hundred million people annually and out of these three million die.<sup>1</sup> And, in these days of war new susceptible populations are being exposed. The habitat of the insect vector is spacious and all that is needed is a source of infection for continued spreading of the disease. This source is provided by those who fall prey and are returned to their homeland carrying the plasmodia with them.

In peacetime the supply of quinine was only a small portion of what was really needed to supply adequate therapy to all who were suffering.<sup>1</sup> Ninety per cent of the world's supply of quinine was obtained from the bark of the cinchona tree cultivated in Java. This source has now been isolated making it necessary to rely upon synthetic drugs. The complete synthesis of quinine has been accomplished by Woodward and Doering<sup>2</sup> thirty-eight years after the elucidation of its structure in 1907 by Rohde and Antonaz.<sup>3</sup>



Quinine