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PLATE I.—THE EDGE OF THE MANJHA.

A NATURALIST IN HINDUSTAN

BY THE SAME AUTHOR

A NATURALIST IN HIMALAYA

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A NATURALIST IN HINDUSTAN

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PREFACE

THIS volume is a record of Natural History relating to animal life. It is a collection of varied observations and experiments made during hours of occasional leisure at a station in the Indian plains. They have been gathered at intervals as opportunity offered, and have all been gleaned from one small patch of jungle in the secluded district of Fyzabad.

My first chapter describes the jungle itself ; it is merely a brief and passing notice, but it will serve to introduce the reader to the scene. The next six chapters record my observations on ants. I have selected four conspicuous species and have entered with detail into the economy of their lives. In the one I have discussed the organisation of the commune, the instincts on which its work depends, and the senses which guide it in its daily toil. Two others have supplied material for a comparison in behaviour, have disclosed how the communicating instinct has originated and the line along which it has evolved. In the fourth I have dwelt mainly on the cattle-tending instinct, that most interesting habit possessed by the species of constructing an elaborate variety of shed for the protection of those insects which supply it with juice. I then pass to four chapters of observations on spiders. First I consider those natal chambers which I found constructed on the blades of grass ; one chapter describes their graceful architecture, the other discusses a series of experiments made on the instincts of the architects themselves. I then come to the manufacture of an exquisite snare ; it is in a sense a modification of the circular pattern, but is constructed of an infinitely more delicate texture and shaped in the form of a hemispherical dome. I then pass to a second of still finer workmanship, since

the architect not only spreads her apron, but has also the power of twisting her filaments into innumerable spiral springs. The next three chapters deal with the dung-rolling beetles, and chiefly consist of a series of experiments made to elucidate the nature of the instincts employed in the performance of their peculiar work. Lastly I will describe the onset of the rains and the wealth of life that adorns the jungle at the burst of the south-west monsoon.

The few photographs should serve to illustrate the subjects discussed, and the sketches will make clear the appearance of those species whose habits and instincts come under review. I am glad to have this opportunity of thanking Miss Tassart, who has given me so freely of her artistic skill, and Mr Bainbrigge Fletcher, the Imperial Entomologist in India, to whose kindness in entomological matters I owe much.

I trust that my record may interest others who observe and investigate Nature's ways. I have tried to make it plain and simple, and have endeavoured to describe the living story in language intelligible to all. I have had little help from other records. I merely write what Nature shows me, and any omissions and errors are my own. The pages that follow are an earnest effort to interpret Nature's work, an attempt to penetrate her endless problems and disclose the truth which she reveals.

R. W. G. H.

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