There were two causes for this failure. First, the stability was deficient, as subsequently recognized, and second, Mr. Maxim did not and could not know how to handle it in the air, for lack of preliminary practise in free flight. The gradual training which all successful aviators have had to go through during the last five years is an abundant demonstration, and one of the marvels of the evolution is that so few fatal accidents have occurred to the experimenters, although there have been almost innumerable breakages of the machines.

O. CHANUTE

Our Insect Friends and Enemies. By JOHN B. SMITH, ScD., Professor of Entomology in Rutgers College and Entomologist of the New Jersey Agricultural Experiment Station. Philadelphia, J. B. Lippincott Company. 1909. Pp. 314, 1 plate. $1.50.

The many good insect books which have appeared during the past few years have not entirely filled the need for more literature of the right sort. A careful reading of this book shows it to be quite different in scope from any of its predecessors. The object is not to present a scheme of classification, a manual of insect anatomy, or a handbook of injurious species of insects, yet these phases are treated incidentally and satisfactorily.

In the foreword the author explains that his object has been to present an account of the relation of insects to other living things. In this he has been eminently successful, and it would be difficult indeed in a book of its size to give a more comprehensive and complete general survey of the whole subject. To the student and working entomologist this book is useful, but especially to the lay reader who sometimes gets an exaggerated idea of the value of parasites or remedial measures in destroying noxious species, is this volume of great value because it shows these relations in their true light and perspective.

The average individual has little knowledge about the recent discoveries relating to the transmission of human and other animal diseases by insects, especially flies, mosquitoes and fleas. In fact, his only source of information has been the newspapers, which print occasional disjointed statements regarding this very important matter. Chapter IX. makes this subject plain to anyone who will read it—and everybody ought to read it.

Chapters IV. and V., on the relation of insects to each other and their relation to animals, are particularly good and deserve to have a wide reading.

A critical person might question the statement regarding the formation of galls on page 78: "and the remarkable point is, that the gall is purely a production of the plant, and the insect has apparently nothing at all to do with it." That the irritation, stimulus or injury of the insect which causes a gall of definite and characteristic shape to form on a particular plant is little known, is true, yet it can not be considered that the insect has "apparently nothing at all to do with it," when the attack of each different species of Cynipidæ or Cecidomyidæ causes a different but entirely characteristic gall to form on the same host plant. However, this is partly explained below on the same page by Professor Smith.

A good colored plate of household insects forms the frontispiece to the volume, which is well printed on good paper, and attractively bound in tan-colored linen.

Of the 121 figures in the text about 35 are new, and were made from excellent pen drawings.

The book is remarkably free from typographical or other errors, the only one noticed being the mis-spelled specific name of the Angoumois grain moth *Gelechia cerealella* Oliv., on page 242.

This volume should find a place in every library of entomological works, and every public library should have a copy.

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NOTES ON ENTOMOLOGY

MR. G. H. VERRALL has completed another volume in the series of books on the Diptera of Great Britain.[1] This volume includes all

[1] "British Flies," Vol. V., London, 1909, 780 pp., 406 figs.