## THE CAMBRIDGE MANUALS OF SCIENCE AND LITERATURE; THE LIFE-STORY OF INSECTS

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The Cambridge Manuals of Science and Literature; The Life-Story of Insects by Geo. H. Carpenter

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GEO. H. CARPENTER

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Trieste

### The Cambridge Manuals of Science and Literature

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### THE LIFE-STORY OF INSECTS

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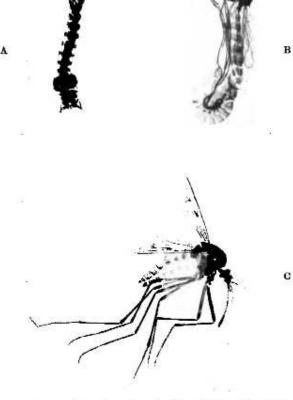
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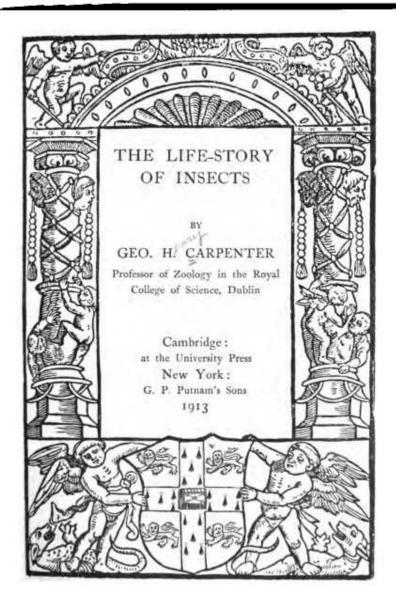
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Frontispiece. Transformation of a Gnat (Culex). Magnified 5 times.

- a Larva. (The head is directed downwards and the tail-siphon with spiracle points upwards to the surface of the water.)
  B. Pupal Cuticle from which the Imago is emerging. (The pair of 'respiratory trumpets' on the thorax of the pupa are conspicuous. The wings of the Imago are crumpled, and the hind feet are not yet withdrawn.)
  C. Adult Gract Family Construction of the spiracle of the
- C. Adult Gnat. Female.



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#### PREFACE

THE object of this little book is to afford an outline sketch of the facts and meaning of insect transformations. Considerations of space forbid anything like an exhaustive treatment of so vast a subject, and some aspects of the question, the physiological Other books for example, are almost neglected. already published in this series, such as Dr Gordon Hewitt's House-flies and Mr O. H. Latter's Bees and Wasps, may be consulted with advantage for details of special insect life-stories. Recent researches have emphasised the practical importance to human society of entomological study, and insects will always be a source of delight to the lover of This humble volume will best serve its nature. object if its reading should lead fresh observers to the brookside and the woodland.

G. H. C.

DUBLIN, July, 1918.