

A. M. WORTHINGTON

***A STUDY
OF SPLASHES***

A. M. Worthington

A Study of Splashes

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Contact: DigiCat@okpublishing.info



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PREFACE

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This publication is an attempt to present in a form acceptable to the general reader the outcome of an inquiry conducted by the aid of instantaneous photography, which was begun about fourteen years ago. The author, in 1894, had occasion to lecture at the Royal Institution on the "Splash of a Drop," of which he had already made a somewhat prolonged study. That lecture, which was subsequently reprinted in the "Romance of Science" series by the Society for Promoting Christian Knowledge, dealt largely with the splash of a drop falling on a solid plate, with which the present volume is not concerned. At the close of the lecture were exhibited for the first time a few photographs of some of the phenomena now dealt with, which the author had just succeeded in taking with the help of his friend Mr. R. S. Cole. The success of the photographs and the additional information they afforded led to a long photographic investigation, which formed the subject of two papers^[A] in the *Transactions* of the Royal Society. Except for two magazine articles,^[B] the results of this work have not been presented to the general public. Moreover, in the illustrations printed by the Royal Society much of the beauty of the original photographs was lost in the reproduction, or was sacrificed in a selection of which the only object was the elucidation of points of technical scientific interest.

If the present volume is so fortunate as to find many readers among the general public, as the author hopes it may, especially among the young whose eyes are still quick to observe, and whose minds are eager, it will be on account of admiration for the exquisite beauty of some of the forms assumed, of surprise at the revelation of so much where so little was expected, and because of the peculiar fascination that is always felt in following any gradually changing natural phenomenon, in which the sequence of events can, partly at any rate, be anticipated and understood.

For the sake of serious students of Physics who may be interested in unexpected phenomena of fluid motion, all references that seem necessary have been given in footnotes, and it may be mentioned that the later photographs of Series I and those of Series I_a and III, have not been previously published, and afford new information on certain points.

In taking these photographs the author has been much helped by his friends Dr. G. B. Bryan and Mr. G. F. Page.

A. M. W.

TAVISTOCK, *Sept. 18, 1907.*

[Added *March 1, 1908.*] A slight delay in the publication of this book has afforded the opportunity of obtaining the new and quite unexpected information given in the supplementary chapter.

FOOTNOTES:

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[A] "Impact with a Liquid Surface," by Worthington and Cole. *Phil. Trans. Roy. Soc.*, A 193, 1897, and A 255, 1900.

[B] *Pearson's Magazine*, July and August, 1898.



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