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Sir George Stokes (1819-1903) established the science of hydrodynamics with his law of viscosity describing the velocity of a small sphere through a viscous fluid. He published no books, but was a prolific lecturer and writer of papers for the Royal Society, the British Association for the Advancement of Science, the Victoria Institute and other mathematical and scientific institutions. These collected papers (issued between 1880 and 1905) are therefore the only readily available record of the work of an outstanding and influential mathematician, who was Lucasian Professor of Mathematics in Cambridge for over fifty years, Master of Pembroke College, President of the Royal Society (1885-90), Associate Secretary of the Royal Commission on the University of Cambridge and a Member of Parliament for the University.

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VOLUME 3

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MATHEMATICAL
AND
PHYSICAL PAPERS

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PREFACE.

WHEN the second volume of my collected papers was published, it was my intention to have entered on some rather elaborate and in part laborious calculations bearing on two of the papers which appear in the present volume. These were however put off from time to time in favour of other matters which claimed my attention; but meanwhile time went on, and I deeply regret to find how long it now is since the second volume appeared. There are other papers which still remain, and I hope, should life and health last, to put these together without delay.

G. G. STOKES.

MALAHIDE, Co. DUBLIN, *September*, 1901.

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ERRATA IN VOL. II.

p. 334, equation (10). Insert "=" before " $\frac{1}{3}\sqrt{-1}$ "

p. 355, equation (66), last term. For ".245835" (log.= $\bar{1}$.390644) read ".245270" (log.= $\bar{1}$.389644)