

**RUDIMENTARY MECHANICS:
BEING A CONCISE EXPOSITION
OF THE GENERAL PRINCIPLES OF
MECHANICAL SCIENCE AND
THEIR APPLICATIONS**

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Rudimentary mechanics: being a concise exposition of the general principles of mechanical science and their applications by Charles Tomlinson

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CHARLES TOMLINSON

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M E C H A N I C S

BEING

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OF THE

General Principles of Mechanical Science

AND THEIR APPLICATIONS

By CHARLES TOMLINSON

LECTURER ON NATURAL SCIENCE IN KING'S COLLEGE SCHOOL, LONDON

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LUDGATE HILL,

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PREFACE.

No department of science has probably received more attention from scientific writers than Mechanics. There are numerous treatises on this subject in all the languages of the civilised world, adapted, apparently, to suit the intellectual and pecuniary means of all classes, and including the costly quarto and bulky octavo for the advanced mathematical student, as well as the sixpenny catechism for the use of children. Between these two extremes, books on the subject are innumerable. In adding one more to the number, the writer does not feel any apology to be necessary, because, in the first place, he is not aware that any other treatise, with the same quantity and exactitude of matter, and with so many engravings, is to be had at so low a price; and, secondly, if he has approached his subject with a proper appreciation of the *principles* upon which mechanical science is based, he can scarcely fail to convey to the diligent and attentive reader some idea of their grandeur, generality, and importance.

In every scientific work where principles are fairly enunciated, the reader can supply facts and illustrations for himself; and he may take it as the test of his progress, if, while thinking of the principle, facts rise

spontaneously in his mind to illustrate it; or if, while examining facts, he clearly perceive the operation of the governing principle.

The sale of the previous Editions of this Work, consisting each of 7,000 copies, within a limited period, is a sufficient proof that a demand has long existed for a cheap popular treatise on Mechanics, in which the peculiar difficulties of the subject should be fairly met instead of being slurred over; and, as far as could be done with the merest elements of Mathematics, made intelligible to the non-professional reader.

The third and fourth parts, devoted to Hydrostatics and Hydrodynamics, are very brief. This could only have been remedied by one of two methods:—either by encroaching on the space devoted to the consideration of Statics and Dynamics, or by extending this volume beyond seven sheets, thereby enhancing the price. The writer considers that the adoption of either of these methods would have greatly injured the utility of the work.

The work has been carefully read for this Edition. It is hoped that no material errors will be found in it to detract in the slightest degree from that success which has attended the previous editions.

C. T.

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