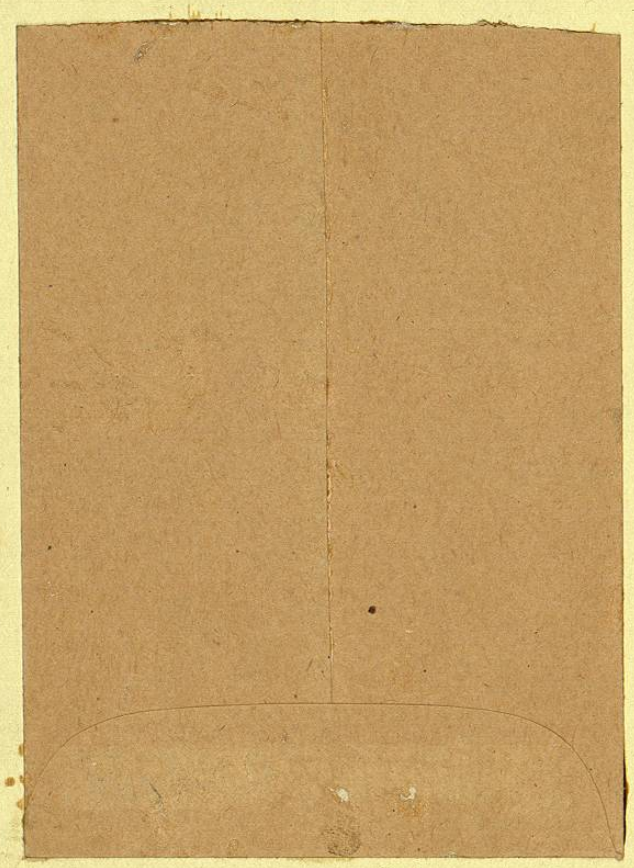
DESCHANEL'S
NATURAL PHILOSOPHY.

BY PROFESSOR EVERETT.

PART II: HEAT.



ELEMENTARY TREATISE

ON

NATURAL PHILOSOPHY.

ELEMENTARY TREATISE

ON

NATURAL PHILOSOPHY

BASED ON THE TRAITÉ DE PHYSIQUE OF

A. PRIVAT DESCHANEL

FORMERLY PROFESSOR OF PHYSICS IN THE LYCÉE LOUIS-LE-GRAND,
INSPECTOR OF THE ACADEMY OF PARIS.

BY

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PART II.

HEAT.

THIRTEENTH EDITION.

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Authorised Edition.

PREFACE TO THE THIRTEENTH EDITION OF PART II.

This edition contains a new chapter on Thermodynamics, in which free use is made of the methods of the Differential Calculus. Entropy is explained, and several examples are given of the deduction of physical relations by changing the order of differentiation.

Among the additions in other parts of the book are:—

Bunsen's calorimeter figured and described;

Dewar's experiments on liquid oxygen;

Rowland's determination of the mechanical equivalent of heat, and of the specific heat of water at various temperatures, the minimum specific heat being attained at about 30° C.;

Thomson and Joule's experiments on forcing gases through a cotton wool plug, to determine the difference between the cooling effect of expansion and the work done in the expansion;

Van der Waals' theory with respect to the departure of gases from Boyle's law.

To prevent the book from becoming too large, the account of Melloni's experiments is curtailed; and a number of details respecting steam-engines are omitted.

The pages and sections of Part II. are now numbered from 1 onwards, instead of making the numbers consecutive to those in Part I.

BELFAST, *January, 1894.*

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