PHILOSOPHICAL TRANSACTIONS, 
of the ROYAL SOCIETY of LONDON. FOR THE YEAR MDCCCXXI. PART I.

LONDON,

PRINTED BY W. BULMER AND W. NICOL, CLEVELAND ROW, ST. JAMES'S;
AND SOLD BY G. AND W. NICOL, PALL-MALL, BOOKSELLERS TO HIS MAJESTY,
AND PRINTERS TO THE ROYAL SOCIETY.

MDCCCXXI.
ADVERTISEMENT.

The Committee appointed by the Royal Society to direct the publication of the Philosophical Transactions, take this opportunity to acquaint the Public, that it fully appears, as well from the council-books and journals of the Society, as from repeated declarations which have been made in several former Transactions, that the printing of them was always, from time to time, the single act of the respective Secretaries, till the Forty-seventh Volume: the Society, as a Body, never interesting themselves any further in their publication, than by occasionally recommending the revival of them to some of their Secretaries, when, from the particular circumstances of their affairs, the Transactions had happened for any length of time to be intermitted. And this seems principally to have been done with a view to satisfy the Public, that their usual meetings were then continued, for the improvement of knowledge, and benefit of mankind, the great ends of their first institution by the Royal Charters, and which they have ever since steadily pursued.

But the Society being of late years greatly enlarged, and their communications more numerous, it was thought advisable that a Committee of their members should be appointed, to reconsider the papers read before them, and select out of them such as they should judge most proper for publication in the future Transactions; which was accordingly done upon the 26th of March, 1752. And the grounds of their choice are, and will continue to
be, the importance and singularity of the subjects, or the advantageous manner of treating them; without pretending to answer for the certainty of the facts, or propriety of the reasonings, contained in the several papers so published, which must still rest on the credit or judgment of their respective authors.

It is likewise necessary on this occasion to remark, that it is an established rule of the Society, to which they will always adhere, never to give their opinion, as a Body, upon any subject, either of Nature or Art, that comes before them. And therefore the thanks, which are frequently proposed from the Chair, to be given to the authors of such papers as are read at their accustomed meetings, or to the persons through whose hands they received them, are to be considered in no other light than as a matter of civility, in return for the respect shown to the Society by those communications. The like also is to be said with regard to the several projects, inventions, and curiosities of various kinds, which are often exhibited to the Society; the authors whereof, or those who exhibit them, frequently take the liberty to report, and even to certify in the public news-papers, that they have met with the highest applause and approbation. And therefore it is hoped, that no regard will hereafter be paid to such reports and public notices; which in some instances have been too lightly credited, to the dishonour of the Society.
CONTENTS.

I. On the black rete mucosum of the Negro, being a defence against the scorching effect of the sun’s rays. By Sir Everard Home, Bart. F. R. S. page 1

II. On the magnetic phenomena produced by Electricity; in a letter from Sir H. Davy, Bart. F. R. S. to W. H. Wollaston, M. D. P. R. S. p. 7

III. A Communication of a singular fact in Natural History. By the Right Honourable the Earl of Morton, F. R. S. in a Letter addressed to the President. p. 20

IV. Particulars of a fact, nearly similar to that related by Lord Morton, communicated to the President, in a letter from Daniel Giles, Esq. p. 23

V. The Croonian Lecture. Microscopical observations on the following subjects. On the Brain and Nerves; showing that the materials of which they are composed exist in the blood. On the discovery of valves in the branches of the vas breve, lying between the villous and muscular coats of the stomach. On the structure of the Spleen. By Sir Everard Home, Bart. V. P. R. S. p. 25


VII. An account of the comparison of various British Standards of linear measure. By Capt. Henry Kater, F. R. S. p. 75
VIII. An Account of the urinary organs and urine of two species of the genus Rana. By John Davy, M. D. F. R. S. p. 95
IX. An account of a Micrometer made of Rock Crystal. By G. Dollond, F. R. S. p. 101
XI. Notice respecting a volcanic appearance in the Moon, in a Letter addressed to Sir Humphry Davy, Bart, P. R. S. By Captain Henry Kater, F. R. S. p. 130
XII. A farther account of fossil bones discovered in caverns inclosed in the lime stone rocks at Plymouth. By Joseph Whidbey, Esq. In a Letter addressed to Sir Everard Home, Bart. V. P. R. S. p. 133
XIII. On the æriform compounds of Charcoal and Hydrogen; with an account of some additional experiments on the gases from oil and from coal. By William Henry, M. D. F. R. S. &c. p. 136

APPENDIX.

Meteorological Journal for 1820, kept at the Apartments of the Royal Society.
The President and Council of the Royal Society adjudged the Medal on Sir Godfrey Copley’s Donation, for the year 1820, to Professor John Christian Oersted, of Copenhagen, for his Electro-magnetic Discoveries.
Mean variation of the magnetic needle.

June 1819, - - - 24.14.47 west.
June 1820, - - - 24.11.44 west.
Dip. about - - - 71.6
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PART II.

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XIV. An account of experiments to determine the times of vibration of the Pendulum in different latitudes. By Captain Edward Sabine, of the Royal Regiment of Artillery, F. R. S. and F. L. S.  p. 163

XV. Some Observations and Experiments on the Papyri found in the ruins of Herculaneum. By Sir Humphry Davy, Bart. P. R. S.  p. 191

XVI. Observations on Naphthaline, a peculiar substance resembling a concrete essential oil, which is apparently produced during the decomposition of coal tar, by exposure to a red heat. By J. Kidd, M. D. Professor of Chemistry, Oxford. Communicated by W. H. Wollaston, M. D. V. P. R. S.  p. 209

XVII. On the aberrations of compound lenses and object-glasses. By J. F. W. Herschel, Esq. F. R. S.  p. 222

XVIII. An account of the skeletons of the Dugong, two-horned Rhinoceros, and Tapir of Sumatra, sent to England by Sir Thomas Stamford Raffles, Governor of Bencoolen. By Sir Everard Home, Bart. V. P. R. S.  p. 268

XIX. On the mean density of the Earth. By Dr. Charles Hutton, F. R. S.  p. 276

XX. On the separation of Iron from other metals. By J. F. W. Herschel, Esq. F. R. S.  p. 293

XXI. On the re-establishment of a canal in the place of a portion of the Urethra which had been destroyed. By Henry Earle, Esq. Surgeon to the Foundling, and Assistant Surgeon to St. Bartholomew’s Hospital. Communicated by the President.  p. 300
CONTENTS.

XXII. Calculations of some observations of the solar eclipse on the 7th of September, 1820. By Mr. Charles Rumker. Communicated by Thomas Young, M.D. For. Sec. R.S. p. 311

XXIII. An account of the re-measurement of the cube, cylinder, and sphere, used by the late Sir George Shuckburgh Evelyn, in his enquiries respecting a standard of weights and measures. By Captain Henry Kater, F. R. S. p. 316

XXIV. An account of observations made with the eight feet astronomical circle, at the Observatory of Trinity College, Dublin, since the beginning of the year 1818, for investigating the effects of parallax and aberration on the places of certain fixed stars; also the comparison of these with former observations for determining the effects of lunar nutation. By the Rev. John Brinkley, D.D. F.R.S. and M.R.I.A. Andrews Professor of Astronomy in the University of Dublin. p. 327

XXV. On the effects produced in the rates of Chronometers by the proximity of masses of iron. By Peter Barlow, Esq. of the Royal Military Academy. Communicated by John Barrow, Esq. F.R.S. p. 361

XXVI. On the peculiarities that distinguish the Manatee of the West Indies from the Dugong of the East Indian seas. By Sir Everard Home, Bart. V. P. R. S. p. 390


XXVIII. On the Nerves; giving an account of some experiments on their structure and functions, which lead to a new arrangement of the system. By Charles Bell, Esq. Communicated by the President. p. 398
CONTENTS.

XXIX. Further researches on the magnetic phenomena produced by electricity; with some new experiments on the properties of electrified bodies in their relations to conducting powers and temperature. By Sir Humphry Davy, Bart. P. R. S. p. 425

Presents received by the Royal Society from November 1820, to July 1821. p. 441
Index p. 451