PHILOSOPHICAL TRANSACTIONS:

Giving some

ACCOUNT

OF THE

Present Undertakings, Studies and Labours

OF THE

INGENIOUS,

IN MANY

Considerable Parts of the WORLD.

VOL. XXI: For the Year 1699.

LONDON:

Printed for S. Smith and B. Walford, Printers to the
Royal Society, at the Prince's Arms in St. Paul's
Church-Yard. MDCC.
To the Right Honourable

JOHN Lord SOMMERS,

Lord High Chancellor of England,
President of the Royal Society:

May it please your Lordship,

The Royal Society of London, Instituted to promote Arts, and Sciences, observing your Lordships great Learning and Goodness, did themselves the Honour to Choose your Lordship their President, which your Lordship condescended to accept of. Your Lordship has since been pleased to shew them many Marks of your Favour and Protection, and to preside in their Assembly. These Honours which come from your desire to encourage all useful Learning, has animated the Society so much, that their Meetings have been more frequented, their Correspondence at Home and Abroad enlarged, and many things have been added to the History of Art and Nature. These Papers, which are a small part of what came before them last Year, I presume to present to your Lordship, not doubting but your Lordship, who [XR r] is
DEDICATION.

is so great a Judge of all sorts of Undertakings of this kind, will favourably accept of the good endeavours of a few Men who spend some of their Time, Thoughts, and Money, only to aim at the forwarding useful Knowledge, and hoping that your Lordship will please to pass by many Faults incident to Human Nature. I need not tell your Lordship, who knows so much, that our Senses are not able to attain to the Knowledge, nor our Reason to Comprehend the Causes of many things which we daily see; but there is great Usefulness and Pleasure in the Pursuit of Natural Inquiries, more than equals the Trouble of the Undertaking, and the Contempt or Pleasantrty of the Malicious and Ignorant. Much should be here said in acknowledgment of your Lordships Favours, but I rather choose to desist, where I must come far short of your Lordships deserts, and the Sense of the Society of them; and therefore shall only beg leave to add that I am

Your Lordships most Obedient

and Dutifful Servant.


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PREFACE.

THE following Papers are a few of such as have come last Year to the Royal Society, which the Persons interested in, have given leave should be printed. I am so sensible of my own Weakness, and have so good an Opinion of the Abilities of the several Persons who have favoured the Society with these Communications, that I have not abridged or chang'd anything in them, but when it was possible, had them Corrected by those who Communicated them. There is no doubt but the more discerning will make a great difference between what is related in them as Matter of Fact, Experiment, or Observation, and what is Hypothesis. The first sort of Relations (of which all these Papers contain, some) are, and must always be useful, and the latter may be pass'd over by such as dislike them. For my own part such Hypotheses as are, or shall be found in any Papers of mine, I have so little regard for them, that considering what has happened to others better qualified than myself, I must conclude, that future Accidents, and Observations, will make them go off, and be hereafter succeeded by others more plausible. The mischiefs these Hypotheses, and their Authors have done, by putting People from further search, out of the way, and making them wrest Matters of Fact to their Fancies, have been very great. There is a very memorable instance

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of this in the Jesuits Bark, which was opposed by Physicians from 1640. or thereabouts, till about twenty years since: the Arguments used against it, were drawn from its being no alterer or voider of those Humours, which the most part of Physicians, had then settled by their Hypotheses to be the cause of such Distempers. A poor Indian who first taught the Cure of an Ague, of which the Lady of the Count de Chincon (Governor of Peru, in 1638.) was Sick, overthrew with one simple Medicine, without any preparation, all the Hypotheses, and Theories of Agues, which were supported by some Scores not to say Hundreds of Volumes, and 'tis plain did mischief by hindering the advantage Men might have received sooner from so innocent and beneficial a Remedy. I say this not to reproach Physicians, who do well to be wary in the use of a new Remedy, till Experience confirms it to be Harmless; but because there are some Specific Medicines mentioned in these Transactions for the Cure of other Diseases, and more are designed for the succeeding Year. I have mentioned the names of the Persons from whom, and to whom Letters were sent, and the Circumstances of the several Relations that came to my Hands, that they may be either relied on, convicted of falsehood, or further inquired into by those who desire to be better satisfied. More might have been said of Books, but I think that part sufficiently handled by others, and not so material here. the Informations to be had in ordinary Extracts and Epitomes being not so satisfactory to any who would have a full knowledge of the Matters contained in the Books themselves, the best things being sometimes left out according to the understanding, studies, or liking of the Abridger. I am sorry so many mistakes happen in the Press, there will always be some; and these Transactions have been the more incorrect for being done often in such haste as not to admit of a Revise.