

As to the Time, when the Plates were made, the Inscription upon the first fixes it to the Reign of *Diocletian*; and as not only the Characters of the other Inscription exactly correspond with that, but also the Manner of the Work upon each Plate is the same; it is highly probable, they were all made about the same time, which was near the End of the third Century. And to this likewise the Form of the Letters, particularly *A* and *M*, very well agrees. Nor ought it to seem strange, if more of them have not been preserved; since from the Nature of them they appear so liable to be destroyed, either by the Injuries of Time, or for the sake of the Silver.

*Gresham College, April 2,*  
1745.

John Ward..

III. *A Letter from Gowin Knight, M. B. to the President; concerning the Poles of Magnets being variously placed.*

*Honoured Sir,*

*London, April 3. 1745.*

*Read April 4.*  
1745.

THE favourable Reception which those magnetical Experiments met with, which you lately did me the Honour to communicate to your Learned *Society*, (*see Tr. N<sup>o</sup> 474. p. 161.*) encourages me to hope, that the following Facts are remarkable enough to merit their Attention.

1. I cut a Piece of natural Loadstone into the Shape of a Parallelopiped, 1 Inch  $\frac{8}{10}$  in Length, in  
Breadth

Breadth  $\frac{4}{10}$  of an Inch, and  $\frac{2}{10}$  in Thickness: Its Weight was 3 Drams and 10 Grains. In this Stone I placed the magnetical Virtue, in such a Manner that the two opposite Ends became, both of them, South Poles; and the Middle was, quite round, a North Pole.

2. Another Stone was in Length 1 Inch  $\frac{1}{10}$ , in Breadth  $\frac{7}{10}$ , and in Thickness about  $\frac{2}{10}$  at a *Medium*, it being thicker at one End than at the other: Its Weight 1 Dram 57 Grains. The 2 opposite Ends of this Stone I made both North Poles, and the 2 opposite Sides South Poles.

3. An irregular Stone, that weigh'd about 5 Ounces and a half, had 2 broad flat Surfaces opposite to each other, at the Distance of 1 Inch and  $\frac{3}{10}$ . I made half of each of these Surfaces a North Pole, and the other half a South Pole; so that the North Pole of one Surface was opposite to the South Pole of the other Surface, and *vice versa*.

4. I took a Stone of a pretty good Kind, that had a Grain very apparent, running the lengthways of it: It was 1 Inch  $\frac{4}{10}$  in Length, 1 Inch  $\frac{3}{10}$  in Breadth, and its Thickness at the Sides was  $\frac{6}{10}$  of an Inch; but in the Middle  $\frac{7}{10}$ ; it being tapered away from the Middle to the Sides: Its Weight was 3 Ounces wanting 4 Grains. At one End of it I placed a North Pole surrounded by a South; and at the other End a South surrounded by a North Pole; so that the Edges of each Surface had a Pole of a different Denomination from that which occupied the Middle.

A great many Varieties of this kind might be easily devised; but these Examples seem sufficient to shew  
how

how manageable the magnetic Virtue is in respect to its Direction; and how defective most of the Hypotheses are, which have been raised to account for the *Phænomena* of the Loadstone.

*Your obedient humble Servant,*

Gowin Knight.

IV. *An Account of some very curious Wasps Nests made of Clay in Pensilvania; by Mr. John Bartram: Communicated by Mr. Peter Collinson, F. R. S.*

Read April 25. 1745. **M**R. John Bartram, a diligent Observer of natural Productions, sent me, from *Pensilvania*, two Sorts of curious Wasps Nests made with Clay, which are commonly built against the Timber under the Roofs of Houses and Pales, to shelter them from the Weather. They feed as the Bees, on Flowers; but whether they sting like them I do not yet know.

The plain Clay-Nest is fabricated by a small black Wasp, of the same Species of that in **TAB. III. Fig. 1.** but less, that has a Speck or Stripe of Yellow in its Tail; and the Cells are made four or five together, joining Side by Side to each other. But the Clay-Nests that are so elegantly wrought are built by a purplish black Wasp, such as is figured

**TAB.**