

other Reading ; and if it be a Copy, that it has been taken with Exactness.

*In TAB. II. Fig. 1. contains the several different Characters and Figures refer'd to in the REMARKS, together with the modern Indian and European Figures.*






*Fig. 2 is the Helmdon Date.*

*Fig. 3 is the Colchester Date.*

### III. Some Considerations on the Antiquity and Use of the Indian Characters or Figures. By Mr. John Cope.

THE most ingenious Invention of Figures by the sagacious *Indians*, is of such vast Importance in Numbering, that it can never be sufficiently admired, although now-a-days the Use of them is become so familiar among us, that very few consider what a Loss the want of them would be to People of every Degree and Station in Life : For to consider only, that such a Number as not long before the Conquest would take up a good Arithmetician whole Days to count by the literal Characters, is now by the Help of Figures commonly express'd by a Child in a few Minutes. This Consideration of the vast Use of Figures, put the Learned Dr. *Wallis*, and others since him, upon enquiring at what Time they were first happily introduced into this Island.

*Dr. Wallis*

Dr. *Wallis* informs us, that we had the Figures from *Spain*, into which Nation they were brought by the *Moors* ; the *Moors* had them from the *Arabians* ; and the *Arabians* from the *Indians*. And it was the Doctor's Opinion, that they were first brought into *England* about the Year 1130 ; for that the first Instance of their Use which he had met with, was a Date upon a Chimney-piece, which Date was  133, the Character  which the *Romans* made use of to express 1000, being mix'd with Figures, as Dr. *Wallis* observes, was often done at their first coming in ; since that in *Philosophical Transactions*, N<sup>o</sup>. 266, is mentioned a Date 1090. all in Figures. About twelve Months ago I produced a Date upon a Chimney-piece at *Widgel-Hall* in *Hertfordshire*, which was  16, the  for the 1000, being here again mix'd with Figures. And I now produce a still earlier Instance of the Use of Figures in *England*, [ see TAB. I. Fig. 2. ] which is a Draught of an Inscription over a Gate-way at *Worcester*, built, as 'tis believ'd, in the Reign of King *Edgar*, and is this . (nine Hundred Seventy-five) which is 158 Years before the Date of Dr. *Wallis*'s, 41 Years before that I produced last Year, and is now 760 Years standing. It is a great pity (I think) but it so happened, that the Shape of the Figures in this Date were altered from what they are here shewn to be of, about two Years ago, when the Gate was new chipp'd and beautified ; and at the same Time the modern ones 975 were then painted in their Room, as they are now to be seen ; the Ground is Gold, and the Figures black. The Account of this Date I had given me lately by








Mr. *Joseph*

Mr. *Joseph Dougharty* of *Worcester*, who is an ingenious and reputable Person, and lives in the House over the Gate-way on which this Inscription is : He likewise inform'd me, that his House goes by the Name of *The oldest House in five Counties* ; and it is the current Opinion thereabouts, and reported by the ancient People in that Place, That the House was built by King *Edgar*, wherein they say, --- he sometimes kept his Court. I confess I am not so well acquainted with the History of those Times, as to say whether King *Edgar* either built, or kept his Court there ; but all Historians agree that *Worcester* was then a very considerable Bishoprick ; and that *Dunstan* and *Oswald*, who were both successively Bishops there in *Edgar's* Time, were both his great Favourites, especially *Dunstan*, for whom King *Edgar* had a very great Regard : for it appears that the first Thing *Edgar* did after he came to the Crown, was to recal *Dunstan* from *Flanders*, where he had been three Years in Exile, and was immediately thereupon made Prime Minister, Favourite, and Confessor, at first Bishop of *Worcester*, and afterwards Archbishop of *Canterbury* ; upon which last Promotion his great Friend *Oswald* succeeded him in the See of *Worcester* : And 'tis very likely that either *Dunstan* or *Oswald*, as having so much Power, Interest and Riches, might erect a Building there, of which this Gate-way might have been a Part ; for as *Edgar* died in the same Year 975, if we suppose the Date to be fix'd upon the Building the Year it was finished, as is now commonly done, *Edgar* could not live or keep

keep his Court there, unless it was in some Part of that Year in which we suppose it to be finished.

I shall next mention some Observations upon the different Shape the Figures have been altered to since their coming into these Western Parts; for our Ancestors wrote them different from the *Indians*, and we again make some of them different from what our Ancestors did, as by the following Table will appear. See TAB. I. *Fig.* 3.

In this Table the Left-hand Column contains the *Indian* Characters; the Middle those used by our Fore-fathers, as appears by old Western Manuscripts; the Third are the Characters we now use.

We may now observe that the Figure 1, is the same as the *Indian*; the Figures 2 and 3, are the same with the *Indian*, only placed in a different Position, for the sake of writing them more readily, for only the Dash from the *Indian* 3 is taken away; they are only, as we may say, both set upright. So the Character  of the *Indians* is much the same with ours, only we close the Head, and set it upright, thus 4. Again, our Ancestors transferr'd the Figure  (5) from the Place of 5, to that of 8, and with very little Alteration is our 8 made from it. As the Figure Five was moved into the Place of Eight, so the old Eight  7 was moved into the Place of Seven, the first of these is the 7 of our Ancestors, the last 7 is our own; and as they put the Five for an Eight, they put the six  into the Place of five; which  was at length altered to , and last of all to 5. The two Characters 9 and 0 are without any Alteration, except that our Ancestors struck a Line cross the Cypher, as thus , which  
we

we now leave out, and by that means 'tis restored to its antient Form. And now we have no Figure left but the *Indian* V (7) to derive the modern 6 from, to which it seems to have no manner of relation : I shall only observe, that it seems not unlikely to be compounded of the *Indian* o (5) and the 1, as thus, 6 ; for of the two antient Characters o Ƀ (for five) the o is *Indian*, and the Ƀ is *Arabian* ; this last being nothing more than the *Arabian* Letter Ƀ inverted, which in the *Arabian* Alphabet denotes the same Number, and is, as 'tis supposed, used by the *Arabians* only.

The *Roman* Characters have likewise undergone Alterations ; for it is found that 1000 was represented by the Antients by this Character ↀ, as likewise by ↀ ; whence is derived the modern M. for that Number : Also 5000 was represented by ↁ, and 50000 by ↂ ; and hence the modern Characters IOO and IOOO for the same Number. We find also in antient Inscriptions ⅋ or ⅋ stand for 20, and ⅌ 30, the Letter X being twice express'd in the one, and three times in the other, which the Moderns write single, as XX and XXX, only the Timber-Merchants use the antient Characters ⅋ and ⅌ to this Day.

Fig. 1.

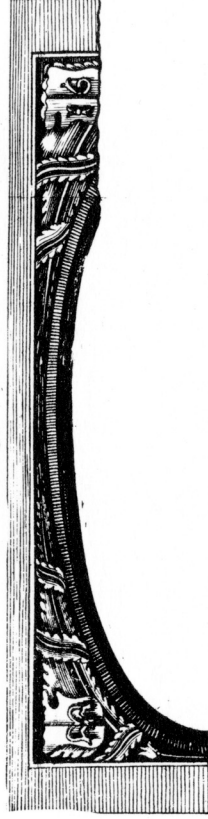
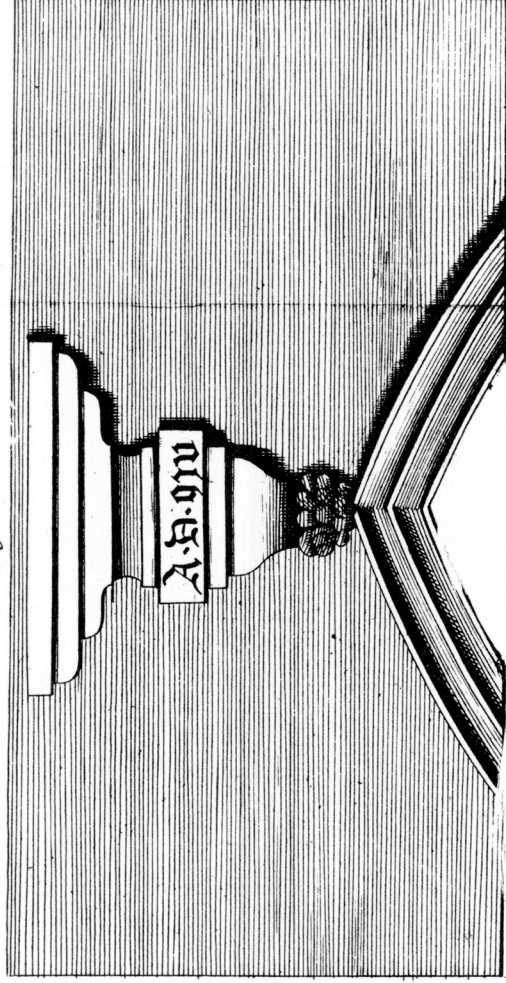


Fig. 2.



Indian	Antient	Modern
1	1	1
u	2	2
w	3	3
5	4	4
08	4b	5
47	6	6
v	1	7
17	8	8
9	9	9
.0	0	0

Fig. 3.