

Exemplum. Ad demonstrationem Solutionis nostræ suffecerit exemplum simplicissimum. Sit itaque n=1; quo in Casu est ABD semicirculus diametro AG descriptus, arque est EBF item semicirculus descriptus diametro AE. Est autem in hoc Casu $\frac{x}{\sqrt{a^{2n}-x^{2n}}} = \frac{x^n}{\sqrt{a^2-x^2}}$. Unde in $\oint 3$. Sit $z = \frac{x}{\sqrt{a^2-x^2}}$; adeoque $z = \alpha - \sqrt{a^2-x^2}$, quæ æquatio est ad Circulum diametro $AG = \alpha$ descriptum, ut sieri debuit. Item pro n scripto 1, æquatio $z^n = z^n$. Unde exterminando r ope æquationis $rr = x^n + z^n$. Unde exterminando r ope æquationis $rr = x^n + z^n$, suffer $\frac{2\sqrt{x^2-x^2}}{x^2} = -x$; adeoque regrediendo ad Fluentes $\frac{2\sqrt{x^2-x^2}}{x^2} = x + a$, quæ æquatio est ad Circulum diametro AE = a descriptum, ut etiam sieri debuit.

III. Extract of a Letter of Dr. Chr. Hunter, M.D. to Dr. J. Woodward, R. S. S. from Durham, giving an Account of a Roman Inscription, lately dug up in the North of England; with some Historical and Chronological Remarks thereon.

HE Inscription which comes herewith, (Fig. II.) was dug up, two Years ago, in the Roman CASTRUM, near Lanchester: The Inscription is very legible, and gives me reason to hope, a Search after the first Fortifying this Place will not be unnecessary; especially, being able to fix the Time of Gordian's Repair-

Repairing this Fortress, to the 243d Year of Christ. We may reasonably ascribe the Foundation to the prudent Administration of Julius Agricola, in the Reign of Fl. Vespasian, about 169 Years before. In Consirmation of this, I find the following Particulars very material, and think it not unbecoming to begin my Enquiry with Vespasian's first Appearance upon the Theatre of Fame in Britain.

In the Second Year of the Emperor CLAUDIUS, Ann. Dom. 44. the Romans invaded Britain, under the Command of Aulus Plautius, in which Expedition Ve-Spafian *, then Legate of the Second Legion, made a glorious Figure; having been engaged in no less than thirty Battels, and reduced two powerful Provinces, above twenty Towns, and the Isle of Wight. All these Successes, the continued with good improvements in some of the following Years and Governments, could not frighten the Natives into an entire Submission; especially, no Advance being made into the Country of the Brigantes, till the Advancement of Vespasian to the Imperial Throne, about 26 Years after, Ann. Dom. 70. Then the whole Empire was deliver'd from the Miscries of Nero's, and the short but lamentable Devastations of the three succeeding Reigns: Vespasian then resolv'd to push on his begun Conquests in Britain; choice Armies, commanded by experienced Generals, are sent over; and the XXh Legion, having in the preceding Troubles acted seditiously, (not without Difficulty) was reduced to submit to Vespasian (most of the Officers as well as Soldiers having been advanced by Vitellius). Julius Agricola is constituted Legate, who, under the Governour Petilius Cerealis, bore a considerable Share

^{*} Suetonius, Vespasian, Cap. 4.

in the Successes against the Brigantes; * " Sed primò " Cerealis modò labores & discrimina, mox & gloriam " communicabat: Sæpe parti Exercicus in experimen-" tum, aliquando majoribus copiis ex eventu præfecir. Tacitus afterwards in a few Words sums up the Whole of Cerealis his Acquisitions, † " Terrorem statim intu-" lit Petilius Cerealis, Brigantum Civitatem, quæ nu-" merosissima Provinciæ totius perhibetur, aggressus; " multa prælia, & aliquando non incruenta; magnam-" que Brigantum partem aut victoria amplexus, aut " bello. Notwithstanding these Advantages, I dare not suppose the Romans to have then penetrated so far into this Province as our Longovicum, which is situate so near the Northern Bounds of the Brigantes, that at present it's not distant above twelve Miles from Corbridge. the Roman Curia, the chief Town of the adjoining People the Otadini. I now advance to my principal Motive, (I hope its Length may deserve Pardon, being under no Obligation to account for the Government of Jul. Frontinus Successor to Cerealis) to fix upon the second Year of Julius Agricola's Government for this Work, which Tacitus thus describes, || " Sed ubi Æltas adve-" nit contracto Exercitu — loca Castris ipse capere, æstuaria ac sylvas ipse prætentare: & nihil interim " apud Hostes quietum pati, quo minus subitis Excut-" sibus popularetur; atque ubi satis terruerat, parcen-" do rurius irritamenta Pacis ostentare. Quibus rebus " multæ Civitates quæ in illum diem ex æquo egerant, " datis Oblidibus iram poluere, & Prælidiis Calteins-" que circumdatæ, tantà ratione curêque, ut nulla an-" tè Britanniæ nova pars illacessita transferit. I his excellent Conduct Tacitus further confirms from the Ob-

^{*} Tacit. Vir. Agric. 8. + Cap. 17. | Cap. 20.

(704)

fervation of Others. " Adnotabant periti, non alium "Ducem Opportunitates locorum sapientius legisse. " nullum ab Agricola positum Castellum aut vi Ho-" stium expugnatum, aut pactione aut fuga desertum. Agricola, this Summer, having quieted so large a Tract. and finished so many Fortresses, it cannot be exnected all should be built with the most exquisite Art, sufficient to perpetuate them. I proceed to Gordian's Repairs; whose Historian Julius Capitolinus having never once named Britain, yet giving so many Hints of the excellent Oeconomy of his Government, under the prudent Administration of his Father in-Law Mistheus. I dare not fix this Work till the Third Year of his Reign. He having before been under the Direction of the Eunuchs and Officers of the Court, whom Capitolinus represents, in Missibeus his Letter to Gordian, to have proflituted all Employments to their own Coverouiness

Durham, July 5.

and mercenary Creatures.