

M 27-10-11

MERCURY,

OR THE

SECRET and SVVIFT

Messenger:

Shewing,

How a Man may with *Privacy*
and *Speed* communicate his *Thoughts*
to a Friend at any distance.

LONDON,

Printed by I. Norton; for John Maynard,
and Timothy Wilkins, and are to be sold
at the George in Fleetstreet, neere
Saint Dunstons Church,

1641.



2745:11



To the Right honorable
GEORGE,
Lord *Berkley*, Baron of
Berkley, Mowbray, Segrave, and
Bruce, and Knight of the
Noble Order of the
BATH.

My LORD:

I Doe here once more present
your Lordship, with the fruit
of my leasure studies, as a te-
stimony of my readinesse to ser-ve you,
in those sacred matters, to which I de-
vote my more serious houres. I should
not ha-ve presumed to this Dedication,

A 3. had

The Epistle, &c.

had I not beene encouraged by that generousnesse and sweetnesse of disposition, which does so eminently adorne your Lordships place and abilities.

If your Lordship please to excuse this boldnesse, and to vouchsafe this Pamphlet a shelter under your favourable patronage, you shall thereby incourage me in those higher studies, which may be more agreeable to that relation, wherein I stand, as being

Your Lordships servant
and Chaplaine,

I. W.

To the Reader.

THat which first occasioned this Discourse, was the reading of a little Pamphlet, styled *Nuntius inanimator*, commonly ascribed to a late Reverend Bishop: wherein hee affirms that there are certain ways to discourse with a friend, though he were in a close Dungeon, in a besieged City, or a hundred miles of.

Which promises, at the first perusal, did rather raise my wonder then believe, having before that time observed nothing, that might give any satisfaction in these particulars. And I should have esteemed them altogether fabulous had it not beene for the credit of their reputed author.

After this, I did collect all such notes to this purpose, as I met with in the course of my other studies.

From whence when I had received full satisfaction, I did for mine own further

ther delight compose them into this method.

This I have now published; not for the publique good, (which I doe not think my poore abilities can promote) but to gratifie my brother the Stationer.

The benefits of that trade do chiefly consist in the printing of coppies; and the vanity of this age is more taken with matters of curiosity, then those of solid benefit. Such a pamphlet as this, may be salable, when a more substantiall and usefull discourse is neglected.

I have already attained mine owne ends, both in the delight of composing this, and the occasion of publishing it. And therefore neede not either feare the censure of others, or beg their favour. I could never yet discern that any Reader hath shewed the more charity, for the Authors bespeaking it. Farewell.

I. W.



To Mercury the elder,

On the most learned Mercury the yonger.

Rest Maja's sonne, sometimes Interpreter
Of Gods, and to us men their Messenger,
Take not such pains as thou hast done of old,
To teach men Hieroglyphicks, and to unfold
Egyptian hidden Characters, and how
Men writ in darke obscurity: for now
Trithemius and Selenus both are grown
Such Cryptographers, as they scarce will own
Thee for their Master, and Decipherers know
Such secret ways to write thou nere didst show.
These are but Artists, which thou didst inspire;
But now thou of a Mercury art sire
Of thine own name, a Post with whom the winde,
Should it comend, would be lesse farre behind.
Whose message as thy metall strikes the gold,
Quite through a wedge of silver uncontrold,
And in a moments space doth passe as far
As from the Artike to th' Antartike star.

So proving what is said of influence,
May now be said of his intelligence,
They neither of them having such a quality
As a relation to locality:
No places distance hindring their Commerce
Who freely traffick through the Vniverse,
And in a minute can a Voyage make,
Over the Oceans universall Lake.
This sonne of thine, could any words or praise
His learning, worth, or reputation raise,
We should be Suters to him to bestow
Encomiums on himselfe, which we do owe
Vnto his worth, and use that Eloquence,
Which as his own, must claime preheminance:
For thee, 'tis glory enough thou hast a sonne
Of Art, that bath thy selfe in Art out-done.

Sir Francis Kinaston Knight.



To the unknown Author.

Old who to the common good applyde,
Or mind, or means, for it were *Deifyde* :
But chiefly such, who new Inventions found ;
Bacchus for Wine, *Ceres* that tild the ground.
I know no reason time should breed such ods,
(W'have warrant for't) men now may be styl'd
By hiding who thou art, seek not to mis, (Gods.
The glory due to such a Work as this ;
But set thy name, that thou mayst have the
Left to the *unknown God* we Altars raise. (praise,

Anthony Aucher, Esquire.

To my friend the Author.

TO praise thy work, were to anticipate
Thy Readers iudgment, and to iniure fate;
Injustice to thy selfe, for real worth
Needs not Arts flattery to set it forth.
Some choose selected wits to write, as friends,
Whose Verses, when the work fails, make amends.
So as the buyer has his penny-worth,
Though what the Author write prove spummy froth.
Thou, of a humour crosse to that, hast chose
A friend or two, whose Verse hops like rough prose,
From whose inexperienced vain thou canst not look
For lines that may enbaunce the price o' th' book.
Let it commend it self, all wee intend
Is but to shew the world, thou art our friend.

Richard Hatton Esquire.



To the Reader.

REader, this Author has not long agoe
Found out another world to this below.
Though that alone might merit great renowne,
Yet in this book he goes beyond the *Moone*.
Beyond the *Moone* indeed, for here you see
That he from thēce hath fetcht down *Mercury*.
One that doth tell us things both *strange* and
new,
And yet believ't thei'r not more strange then
true.
I'me loth to tell thee what rare things they
bee,
Read thou the booke and then thou'lt tell
them mee.

Tob. Worlrich. I. C. Doct.



To his honour'd Friend *I. W.* on his
learned Tract,

The Secret and Swift Messenger.

Inimitable Sir, wee here discern
Maximes the *Stagirite* himselfe might learn.
Were *Plato* now alive hee'd yield to You,
Confessing something might be *Knowne anew.*
Fresh Heresies (New nothings) still appeare
As *Almanacks*, the Births of every Yeare.
This *Dutchman* writes a *Comment*, that *Translates*,
A Third *Transcribes*; Your Pen alone *Creates*
New necessary Sciences; This Art
Lay undiscover'd as the Worlds fift part.
But *Secrecie's* now Publish'd; You reveal
By *Demonstration* how wee may Conceal.
Our *Legates* are but Men, and often may
Great State-affaires unwillingly betray:
Caught by some sifting Spies, or tell-tale *Wine*,
Which dig up Secrets in the deepest Mine.
Sometimes, like Fire pent in, they outward break,
And 'cause they should be silent, therefore speak.
Nor are Kings Writings safe; To guard their Fame,
Like *Scavola*, they wish their Hand ith' Flame.

Inke

Inke turns to bloud ; they oft participate
By wax and Quill sad *Icarus* his fate.
Hence Noblemens bad writing proves a plot ;
Their Letters are but Lines, their Names a Knot.
But now they shall no more *Seale* their own *Fall* ;
No Letters prove *Killing*, or *Capitall*.
Things passe unknown, and each Ambassadour 's
Strict as the Brest of sacred Confessours :
Such as the Inquisition cannot see ;
Such as are forc'd neither by Rack, nor Fee.
Swift Secrecie descends to Humane Powers ;
That which was *Plutoes* Helmet, now is Ours.
We shall not henceforth be in pay for ayre,
Transported Words being deare as precious Ware ;
Our Thoughts will now arrive before they're stale ;
They shall no more wait on the Carriers Ale,
And Hostesse, two Land *Remoraes*, which bind
All to a *Tortoise* pace, though Words be Wind.
This Books a better Arke ; we brook no stay,
Maugre the deepest Flood, or foulest Way.
Commerce of Goods and Souls we owe to Two,
(Whose Fames shall now be Twins) *Noah* and You.
Each Bird is turn'd a *Parrot*, and we see
Aesops Beasts made more eloquent by thee.
Woers againe may wing their fetterd Love,
By *Noahs* trusty Messenger the *Dove*.
Torches which us'd only to help our sight,
(Like heavenly fires) do give our Reason Light.
Deaths Harbingers, Arrows, and Bullets prove
Like *Cupids* darts, Ambassadours of Love.

Then

Then your diviner *Hieroglyphicks* tell
How we may Landskips read, and Pictures spell.
You teach how Clouds inform, how smoaks advise,
Thus Saints with Incense talke to *Deities*,
Thus by dumbe Creatures we instructed are,
As the Wise Men were Tutor'd by a Star.

Since we true *Serpents* like doe little wrong
With any other Member but the Tongue;
You tell us how we may by Gestures talke:
How Feet are made to speak, as well as walke:
How Eyes discourse, how mystique Nods contrive;
Making our Knowledge too, *Intuitive*,
A Bell no noise but *Rhetoricke* affords;
Our Musique Notes are Speeches, sounds are Words.
Without a Trope there's Language in a *Floure*,
Conceits are Smelt without a *Metaphor*.
Dark subtleties we now shall soon define,
Each Organs turn'd the sense of *Discipline*.
'Tis to your Care we owe that we may send,
Businesse unknown to any but our Friend.
That which is English Friendship to my Brother,
Maybe thought 't Greek or Non-sence to another.
We now may *Homers Iliads* confine
Not in a Nut shell, but a Point, or Line.
Which Art though 't seeme to exceed Faith, yet who
Tryes it, will find both Truth and Reason too.
'Tis not like Juglers tricks, absurd, when shovvn;
But more and more admir'd, the more 'tis knowvn.
Writing's an Act of Emanation,
And Thoughts speed quick and far as Day doth run.

Richard West. C.C. Ox.



MERCURY.

The secret and swift
Messenger.

CHAP. I.

The dependance of this knowledge in nature. The Authors that have treated of it. Its relation to the art of Grammar.



Very rationally creature, being of an imperfect, and dependant happiness, is therefore naturally endowed with an ability to communicate its owne thoughts and intentions; That so by mutuall services, it might the better promote it selfe, in the prosecution of its owne wel-being.

And because there is so vast a difference betwixt a spirit and a body,

B

therefore

therefore hath the wisdom of providence contrived a distinct way and meanes, whereby they are each of them inabled to discourse, according to the variety of their severall natures.

Aquinas
part. 1.
Quest. 107.
Zanch. de
Operibus
Dei. Part. 1.
lib. 3. c. 19.

The Angels or Spirituall substances, *Per insinuationem specierum*, (as the Schoolemen speake) By insinuating of the species, or an unveiling of their owne natures in the knowledge of such particulars, as they would discover to another. And since they are of a *Homogeneous* and *immateriall* essence, therefore do they heare, and know, and speake, not with severall parts, but with their whole substance. And though the Apostle mentions the *tongue of Angels*, yet that is onely *Per concessionem, & ex hypothesi*.

1^o Cor. 13.

1.

But now, men, that have *Organicall bodies*, cannot communicate their thoughts, so easie and immediate a way. And therefore have need of some corporeall instruments, both for

for the *receiving* and *conveying* of knowledge. Unto both which functions, nature hath designed severall parts. Amongst the rest, the eare is chiefly the sense of discipline or *learning*, and the tongue the instrument of *teaching*. The communion betwixt both these is by speech or language. Which was but *one* at first, but hath since beene confounded into severall kinds. And experience now shews, that a man is equally disposed, for the learning of all, according as education shall direct him. Which would not be, if (as some fondly conceive) any one of them were naturall unto us. For *in-
tus existens prohibet alienum*.

Or suppose that a man could be brought up to the speaking of another tongue; yet this would not hinder, but that he should still retain his knowledge, of that which was naturall. For if those which are gotten by art, doe not hinder one another, much lesse would they be any

*Valleson
Sacr. Phisof.
cap. 3.*

*Cal. Rhod.
Ant. lect.
lib. 2. 9. c.
14.*

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impediment, to that which is from nature. And according to this it will follow, that most men should be of a double language; which is evidently false. Whence likewise you may guesse, at the absurdity of their enquiries, who have sought to find out the primitive tongue, by bringing up infants in such silent, solitary places, where they might not hear the speech of others.

Languages are so farre naturall unto us, as other arts and sciences. A man is borne without any of them; but yet capable of all.

Now, because *Words* are onely for those that are present both in *time* & *place*; therefore to these, there hath beene added, the invention of *letters* and writing: which are such a representation of our words (though more permanent,) as our words are of our thoughts. By these we may discourse with them, that are remote from us, not onely by the distance of many *miles*, but also of
many

many ages, *Hujus usu scimus maxime constare humanitatem vitæ, memoriam, ac hominum immortalitatem*, saith *Pliny*. *Quid hoc magnificentius ? quid æque mirandum ? in quod ne mortis quidem avida rapacitas jus ullum habeat*, saith *Rhodiginus*, This being the chiefest meanes, both for the promoting of humane society, and the perpetuating our names unto following times.

How strange a thing this Art of writing did seeme at its first invention, we may guesse by the late discovered *Americans*, who were amazed to see men converse with books, and could scarce make themselves beleieve that a paper should speake: especially, when after all their attention and listning to any writing (as their custome was) they could never perceive any words or sound to proceed from it.

There is a pretty relation to this purpose concerning an Indian slave, who being sent by his Master, with

Nat. hist.
lib. 14. c. 11.

Antiq. lect.
lib. 4. cap. 3.

Hermannus.
Hugo de
orig. Scri-
bendi. Pref.

a basket of figs and a letter, did by the way eat up a great part of his carriage, conveying the remainder unto the person, to whom he was directed, who when he had read the letter, and not finding the quantity of figges answerable to what was there spoken of; he accuses the slave of eating them, telling him what the letter said against him. But the Indian, (notwithstanding this prooffe) did confidently abjure the fact, cursing the paper, as being a false and lying witness. After this, being sent againe, with the like carriage, and a letter expressing the just number of figges, that were to be delivered, hee did againe according to his former practice, devoure a great part of them by the way; but before hee medled with any, (to prevent all following accusations;) he first tooke the letter, and hid that under a great stone, assuring himselfe, that if it did not see him eat the figges, it could never tell of him; but being now more
strongly

strongly accused then before , hee confesses the fault , admiring the divinitie of the paper , and for the future doe's promise his best fidelity in every employment.

Such strange conceits , did those wilder nations entertaine , concerning this excellent invention. And doubtlesse it must needs argue a vast ability both of wit and memory , in that man , who did first confine all those different sounds of voyce , (which seeme to be almost of infinite variety) within the bounds of those few letters in the Alphabet.

The first inventor of this , was thought to be the Egyptian *Mercury* , who is therefore stiled the *Messenger* of the Gods. To which purpose the Poets have furnished him with wings for *swiftnesse* and dispatch in his errands. And because the Planet of that name , was thought to observe a more various & obscure revolution then any of the rest , therefore likewise did they attribute unto him , such

Cicero lib. 3. de Na. Deor. Polyd. Virg. de Inventor. lib. 1. cap 6. Vossius de Grammatica li. 1. c. 9. Natal. Comes Mythol. lib. 5. cap. 5.

Secret and subtle motions, as might make him a trusty and private messenger, and so the fitter for that preferment, to which for this invention they had advanced him.

There is yet another way of discouraging, by signes and gestures. And though it be not so common in *practise*, as either of the other; yet in *nature*, perhaps it is before them both: since infants are able this way to express themselves, before they have the benefit of speech.

But now, because none of these wayes in ordinary use, are either so *Secret* or *Swift*, as some exigences would require; Therefore many of the Antients have busied themselves in a further inquiry how both these deficiencies may be remedied: as conceiving that such a discovery would be of excellent use, especially for some occasions that are incident to *Statesmen* and *Souldiers*.

That the ignorance of *Secret* and *Swift* conveyances, hath often proved

ved fatal, not onely to the ruine of particular persons, but also of whole Armies and Kingdomes; may easily appeare to any one that is but little versed in story. And therefore the redressing of these may bee a subject worth our enquiry.

Amongst the Antients that have most laboured in these particulars, [*Aeneas*, *Cleomenes*, and *Democritus*, (as they are cited by * *Polybius*) were for their inventions of this kind, more remarkeably eminent. And that * Author himself, hath given us such an exact relation of the knowledge of antiquity in these things, that 'tis a wonder, these following ages should either take no more notice, or make no more use of it. Besides these, there is also *Iulius Africanus*, and *Philo Mechanicus*, two antient Grecians, who have likewise treated of this subject.

The Military significations in use amongst

[*Polyorctica.*

* *Hist. l. 10.*

* *Polybius*
Ibid.
juxta finem.

* *De re mi-
lit.* lib. 3.

Cap. 5.

* *De Strat.*

* *Li. de notis
antiquis.*

* *The father.*

* *Lib. de*

Polygraph.

item de Ste-

nograph.

* *tract. de*

ratione

comitum.

linguarum.

* *Lib. de*

Zypris.

* *Notis in*

Aene Po-

lytica.

* *Fab. 9.*

* *de Cryptog.*

* *de Gram.*

Lib. 1. c. 40.

* *Lib. de Or.*

Scrib.

De Augm.

Scientiar.

Lib. 6. ca. 1.

amongst the *Romans*, are handled by
* *Vegetius*, and * *Frontinus*.

Their notes of Secrecy, and Ab-
breviation in writing, are largely set
downe by * *Valerius Probus*, and *Pet.*
Diaconus. There is likewise a vo-
lumne of these, set forth by *Ianus*
Gruterus, which for their first inven-
tion are commonly ascribed unto
Cicero and * *Seneca*.

In latter times, these particulars
have beene more fully handled, by
the Abbot * *Tritemius*. * *Theodorus*
Bibliander, * *Baptista Porta*. *Cardan.*
Subtilit. lib. 17. de Var. C. 12. 6. * *Isaac*
Casaubon. * *Iohannes Walchius*, * *Gusta-*
vus Selenus. * *Gerardus Vossius*. * *Her-*
mannus, *Hugo*, and divers others, in
particular languages.

Amongst the rest, our English
Aristotle, the learned *Verulam*, in that
worke truly stiled the *Advancement*
of *Learning*, hath briefly contracted
the whole substance of what may be
said in this subject. Where he refers
it to the art of *Grammar*, noting it as a
de-

deficient part. And in reference to this is it handled by most of those Authors, who have treated of it.

That art, in its true latitude comprehending a treaty, concerning all the wayes of discourse, whether by speech, or by writing, or by gesture, together with the severall circumstances, pertaining to them. And so this subject belongs to the *Mint* of knowledge; Expressions being currant for conceits, as money is for valuations.

ibid.

Now as it will concerne a man that deales in traficke, to understand the severall kinds of money, and that it may be framed of other materialls, besides silver and gold: So likewise do's it behove them, who professe the knowledge of nature or reason, rightly to apprehend the severall waies whereby they may be expressed.

So that besides the usefulness of this subject, for some speciall occasions, it doth also belong unto one of the liberall Arts.

From

The secret and swift

From which considerations wee may infer, that these particulars are not so triviall, as perhaps otherwaies they would seeme, and that, there is sufficient motive to excite any industrious spirit, unto a further search after them.

In this following discourse, I shall enquire,

1 Concerning the *Secrecy* of meanes, whereby to communicate our thoughts.

2 Concerning their *Swiftnesse*, or quicke passing at any great distance.

3 How they may be both joyned together in the conveiance of any Message.

In the prosecution of which, I shall also mention (besides the true discoveries) most of those other wayes, whether *Magicall*, or *Fabulous*, that are received upon common tradition.

C H A P. I I.

*The conditions requisite to Secrecy,
The use of it in the Matter of speech,
either*

By } *Fables of the Heathen.*
 } *Parables of Scripture.*

TO the exactness of Secrecy in any way of discourse, there are these two qualifications requisite.

1. That it be difficult to be unfolded, if it should be doubted of, or examined.

2. That it be (if possible) altogether devoid of suspicion; for so far as it is liable to this, it may be said to come short in the very Nature of Secrecy; since what is once suspected, is exposed to the danger of examination, & in a ready way to be discovered: but if not, yet a man is more likely to be disappointed in his intentions,

intentions, when his proceedings are mistrusted.

Both these conditions together are to be found but in few of the following instances; only they are here specified, to shew what a man should aime at, in the inventions of this nature.

The art of secret information in the generall, as it includes all signifi-catory signes, may be stiled *Cryptomenyis*, or private Intimations.

The particular wayes of discour-sing, were before intimated to bee threefold.

1. By Speaking.
2. By Writing.
3. By signes or gestures.

According to which variety, there are also different wayes of Secrecy.

1. *Cryptologia*.
2. *Cryptographia*.
3. *Semaologia*.

Cryptologia, or the Secrecy of speaking, may consist either,

1. In the matter.

2. In the words.

1. In the *Matter*: when the thing we would utter is so concealed under the expression of some other matter, that it is not of obvious conceit. To which purpose are the *Metaphors*, *Allegories*, and divers other Tropes of Oratory: which, so farre as they concerne the *ornament* of speech, doe properly belong to *Rhetorick*, but as they may be applied for the *secrecy* of speech, so are they reducible unto this part of *Grammar*.

To this likewise appertaines all that *enigmaticall* learning, unto which not onely the learned heathen, but their Gods also were so much devoted, as appears by the strange and frequent ambiguities of the *Oracles*, and *sybils*. And those were counted the most profound Philosophers amongst them, who were best able for the invention of such affected obscurities.

Of this kind also were all those
myste-

Fables.

mysterious *Fables*, under which, the ancients did veile the secrets of their *Religion* and *Philosophy*; counting it a prophane thing to prostitute the hidden matters of either, unto vulgar apprehension. *Quia sciunt inimicam esse naturam, apertam nudamque expositionem sui; quae, sicut vulgaribus hominum sensibus, intellectum sui, vario rerum tegmine operimentoque subtraxit, ita a prudentibus arcana sua voluit per fabulosa tractari,* saith *Macrobius*. The Gods and nature wold not themselves have hidden so many things from us, if they had intended them for common understandings, or that others should treat of them, after an easie & perspicuous way: Hence was it that the learned men of former times were so generally inclined, to involve all their learning, in obscure & mysterious expressions. Thus did the *Egyptian Priests*, the *Pythagoreans*, *Platonicks*, & almost all other sects and professions.

And to this generall custome of those ages (we may guesse) the holy-Ghost

In Somn.
Scip. Lib. 1.
Cap. 2.

Fables.

Ghost do's allude, in the frequent Parables, both of the old and new Testament. *Parabola est sermo similitudinarius, qui aliud dicit, aliud significat,* saith *Aquinas*. It is such a speech of similitude, as sayes one thing, and meanes another. The Disciples doe directly oppose it to plaine speaking. *Behold now speakest thou plainly, and no Parables.*

And elsewheretis intimated, that our Saviour did use that manner of teaching for the Secrecy of it: That those proud and perverse auditors, who would not applie themselves to the obedience of his doct rine, might not so much as underst and it. *To whom it is not given to know the mysteries of the Kingdome of God, to them all things are done in Parables; that seeing they may see and not perceiue, and hearing they may heare and not understand.*

The art of these was so to implie a secret argument, that the adversary might unawares be brought over, to an acknowledgement, and confession

Commen. in
Isai. 14.

Ioh. 16. 29.

Mat. 13.
10. 11.
Mar. 4. 11.
12.

Glas. Philo.
Lib. 2. pat.
1. tract. 2.
Sect. 5.

2 Sam. 12.

1 King.
20. 39.

Mat. 21. 33.

of the thing we would have. Thus did *Nathan*, unexpectedly discover to *David*, the cruelty and injustice of his proceedings in the case of *Vriah*. Thus did another Prophet, make *Ahab*, condemne himselfe, for suffering the King of *Syria* to escape. And by this meanes did our Saviour in the Parable of the Vineyard, and the unjust husband-man, force the unbelieving Jewes, to a secret acknowledgement, of those judgements, they had themselves deserved.

Of this nature was that argument of an ancient *Orator*, who when the enemies had proposed peace, upon this condition, that the City should banish their teachers and Philosophers; He steps up and tells the people a tale, of certaine warres betwixt the wolves and the sheepe, and that the wolves promised to make a league, if the sheep would put away their mastiffe Dogs. By this meanes better instructing them of the danger and madnesse there would be in yeel-

yeelding to such a condition.

The Jewish Doctors doe generally in their *Talmud*, and all their others writings, accustome themselves to a Parabolicall way of teaching; and 'tis observed that many of those horrid fables, that are fathered upon them, doe arise from a misapprehension of them in this particular. Whilst others interpret that according to the *letter*, which they intended onely for the *morall*. As that which one *Rabby* relates concerning a Lion in the Forrest of *Elay*, that at the distance of foure hundred leagues, did with his roaring, shake downe the walls of *Rome*; and make the women abortive. Wherein he did not affirme the existence of any such monster, but only intimate the terriblenesse and power of the divine Majestic. But this by the way.

By this Art, many men are able in their ordinary discourses, so secretly to convey their counsels, or

*Schickard
Examen
Comm. Rab-
bin. dis. 7.*

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reproofes, that none shall understand them, but those whom they concerne. And this way of teaching hath a great advantage above any other, by reason it hath much more power in exciting the fancy and affections. Plaine arguments, and morall precepts barely proposed, are more flat in their operation, not so lively and perswasive, as when they steale into a mans assent, under the covert of a parable.

To be expert in this particular is not in every mans power; like Poetrie, it requires such a naturall facultie as cannot be taught. But so farre as it falls under the rules and directions of Art, it belongs to the precepts of *Oratory*.

In the generall 'tis to be observed, that in these cases a man must be very carefull to make choyse of such a subject, as may beare in it, some proper analogie and resemblance to the chiefe businesse. And he must beforehand in his thoughts, so aptly contrive

trive the severall parts of the similitude, that they may fitly answer unto those particular passages, which are of greatest consequence.

C H A P. III.

Concerning that secrecie of speech which consists in the words, Either

By inventing new ones, } Canting.
as in } Conjuring.

Or by a changing } Inversion.
of the knowne } Transmutation.
languag,whither } Diminution.
Augmentation.

THe secret wayes of speaking, which consists in the *matter* of discourse have beene already handled. Those that are in the *words* are twofold. Either

1. By inventing new words of our owne, which shall signifie upon compact.

2. Or by such an alteration of
C 3 any

any knowne language, that in pronuntiation it shall seeme as obscure, as if it were altogether barbarous.

To the first kind we may referre the *Canting* of beggars; who though they retain the common particles, yet have imposed new names upon all such matters, as may happen to be of greatest consequence and secrecy.

And of this nature the *charms* of Witches, and language of Magicians seeme to be. Though of these it may well be doubted, whether they have any signification at all; And if they have, whether any understand them but the Devill himselfe? 'Tis probable, he did invent such horrid and barbarous sounds, that by them, he might more easily delude the weak imaginations of his credulous disciples. *Martinus de Arles*, an Arch-deacon in *Navare*, speaking of a conjuring booke, that was found in a Parish under his visitation, repeats out of it these formes of discoursing
with

with the Devill. *Conjuro te per alim, per alion, per seboan, per adonay, per attelujah, per tanti, per archabulon, &c.* And a little after, *Sitis alligati & constricti per ista sancta nomina Dei, Hir, alli, habet, sat, mi, filisge, adrotiagundi, tat, chamiteram, &c.* And in another place, *Coriscion, Matatron, Caladafon, Ozcozo, Tofiel, &c.*

In which formes, the common particles and words of usuall sence, are plainely set downe in ordinary Latin; but many of the other, which seeme to have the greatest efficacy, are of such secret sence, as I thinke no linguist can discover.

The inventions of this kind, doe not fall under any particular rule or maxime, but may be equally infinite to the variety of articulate sounds.

The second way of secrecy in speech, is by an alteration of any knowne language, which is farre more easie, and may prove of as much use for the privacy of it, as

Porta de
surt. de 15.
cap. 5.
Selenus de
C. 17. p. 10. a.
p. 10. 2.
cap. 10.

the other. This may be performed, foure wayes.

1. By *Inversion*, when either the *Letters* or *Syllables* are spelled backwards.

*Mitto tibi METVLAS can-
cros imitare legendo*, where the word
SALVTEM is expressed by an
inversion of the letters. Or as in this
other example, *Stisbo estad, ueca bitis*
which by an inversion of the *Sylla-
bles*, is *Hofkis adest, cave tibi*.

2. By *Transmutation*, or a mutu-
all changing of one letter for ano-
ther in pronunciation, answerable
to that forme of writing mentioned
in the seventh Chapter. And though
this may seeme of great difficulty,
yet use and experience will make it
easie.

3. By *contracting* some words, and
leaving part of them out; pronoun-
cing them after some such way as
they were wont to be both written
and printed in antient Copies. Thus
āā stands *anima*, *Arī's* for *Aristoseles*.

But

But this can be but of small use in the English tongue, because that does consist most of *Monosyllables*.

4. By *augmenting* words with the addition of others letters. Of which kind, is that secret way of discoursing in ordinary use, by doubling the vowels that make the syllables, and interposing G. or any other consonant K. P. T. R, &c. or other syllables, as *Porta lib. 1. cap. 5. de furiv. liter. notis*. Thus, if I would say, *Our plot is discovered*, it must be pronounced thus, *Ougour plogor igr di giscogoreged*. Which does not seeme so obscure in writing, as it will in speech and pronuntiation. And it is so easie to be learnt, that I have knowne little children, almost as soone as they could speake, discourse to one another as fast this way, as they could in their plainest English.

But all these later kinds of secrecy in speech, have this grand inconvenience

venience in them, that they are not without suspicion.

There are some other wayes of speaking by inarticulate sounds, which I shall mention afterwards.

Chap. 17
18.

CHAP. IV.

Concerning the secret conveyances of any written message in use amongst the Antients,

Either by $\left\{ \begin{array}{l} \text{Land.} \\ \text{Water.} \\ \text{The open Ayre.} \end{array} \right.$

THe secrecy of any written message may consist $\left\{ \begin{array}{l} \text{Conveyance.} \\ \text{Writing.} \end{array} \right.$ either in the

1. In the *Conveyance*, when a letter is so closely concealed in the carriage of it, as to delude the search and suspicion of the adversary. Of which kind, the antient Historians doe furnish us with divers relations, reducible in the generall unto these three

three heads. Those that are

1. By Land.
2. By Water.
3. Through the open Ayre.

1. These secret conveyances by Land, may be of numberlesse variety : but those antient inventions of this nature, which to my remembrance are most obvious and remarkeable, are these.

1. By Land

That of *Harpagus* the *Mede* (mentioned by *Herodotus* and *Iustin*) who when he would exhort *Cyrus* to a conspiracy against the King his uncle, (and not daring to commit any such message to the ordinary way of conveyance , especially since the Kings jealousie had stopped up all passages with spies and watchmen) he put his letters into the belly of a hare ; which together with certaine hunters nets, hee delivered unto a trusty servant , who under this disguise of a hunts-man , got an unsuspected passage to *Cyrus*. And *Astygis* himselfe was by this conspiracy bereaved

Herod Lib. 1
cap. 123.
Iustin. ib. 1.

bereav'd of that Kingdom which was then the greatest Monarchie in the world.

To this purpose likewise that of *Demaratus*, King of *Sparta*, who being banished from his own Country and received in the Persian Court, when he there understood of *Xerxes* his designe and preparation for a warre with *Greece*, hee used these meanes for the discovery of it unto his countrey men. Having writ an Epistle in a * Tablet of wood, he covered over the letters with waxe, and then committed it unto a trusty servant to be delivered unto the Magistrates of *Lacedemon*; Who when they had received it, were for a long time in a perplexed consultation, what it should meane, they did see nothing written, and yet could not conceive, but that it should import some weighty secret; till at length the Kings sister did accidentally discover the writing under the waxe, By which meanes the *Grecians* were so

Iustin. lib. 2.
See inc.
like related
o. *Har.
mucar. libid.
lib. 21.*

* Such as
formerly
they were
wont to
write u-
pon,
whence
the phrase
Rasa tabula,
and *littera a
littera*.

so well provided, for the following warre, as to give a defeate to the greatest and most numerous Army that is mentioned in History.

The Fathers of the Counsell of *Ephesus*, when *Nestorius* was condemned, being strictly debarred from all ordinary ways of conveyances, were faine to send unto *Constantinople*, by one in the disguise of a beggar.

Some messengers have beene sent away in coffins as being dead. Some others in the disguise of brute creatures, as those whom *Iosephus* mentions in the siege of *Iotapata*, who crept out of the City by night like Dogs.

Others have conveyed letters to their imprisoned friends, by putting them into the food they were to receive, which is related of *Polycrita. Laurentius Medicus* involving his Epistles in a piece of bread, did send them by a certaine Nobleman in the forme of a begger. There is another relation of one, who rolled up his letters in a waxe candle, bidding the messen-

Isaac Casaub.
Notis in
Aeneid. l. 6.
lib. 6. 31.

De Bello Iudaic.
l. 3. c. 8.

Herman.
Hug. de orig.
Scrib. c. 15.

Selenus de
Cryptographia
lib. 8.
cap. 7.

Poliarces.
cap. 31.

messenger tell the party that was to receive it, that the candle would give him light for his businesse. There is yet a stranger conveyance spoken of in *Æneis*, by writing on leaves, and afterwards with these leaves, covering over some sore or putrid ulcer, where the enemy would never suspect any secret message.

Others have carried Epistles inscribed upon their owne flesh, which is reckoned amongst those secret conveyances mentioned by *Ovid*.

*Caveat hoc custos, pro charta, conscia
tergum*

Præbeat, inque suo corpore verba ferat.

But amongst all the ancient practices in this kind, there is none for the strangeness, to be compared unto that of *Hystianus* mentioned by *Herodotus*, and out of him in *Aulus Gellius*: who whilst he resided with *Darius* in *Persia*, being desirous to send unto *Aristagoras* in *Greece*, about revolting from the *Perstan* Government, (concerning which they had before

*De Arte
Amanda*

*Herod. lib. 5
cap. 35.
Nestes. Atti.
Lib. 7. cap.
10.*

before conferred together ;) But not knowing well how at that distance to convey so dangerous a businesse with sufficient secrecy, hee at length contrived it after this manner. He chose one of his household servants that was troubled with sore eyes , pretending that for his recovery, his haire must be shaved, and his head scarified ; in the performance of which *Hystians* tooke occasion to imprint his secret intentions on his servants head, and keeping him close at home till his haire was growne , hee then told him, that for his perfect recovery, hee must travaile into *Greece* unto *Aristagoras* , who by shaving his haire the second time, would certainly restore him. By which relation you may see, what strange shifts the antients were put unto, for want of skill, in this subject, that is here discoursed of.

'Tis reported of some fugitive Jewes at the siege of Jerusalem, who more securely to carry away their gold,

Ioseph. de
Bello Iuda.
lib. 6. c. 15.

gold, did first melt it into bullets, and then swallow it downe, venting it afterwards amongst their other excrements. Now if a man had but his faculty; who could write *Homers Iliads*, in so small a volume as might be contained in a nut shell, it were an easie matter for him, by this trick of the Jewes, securely to convey a whole packet of letters.

Sol'n. Poly-
bist. cap. 6.

2. By Water.

De Strateg
lib. 3. c. 13.

2. When all the land passages have beene stopped up, then have the antients used other secret conveiances by water; writing their intentions on thin plates of leade, and fastning them to the armes or thighe of some expert swimmer. * *FRONTINUS* relates, that when *LUCULLUS* would informe a besieged City of his coming to succour them, hee put his letters into two bladders, betwixt which a common Souldier in the disguise of a sea-monster, was appointed to swim unto the City. There have bin likewise more exquisite inventions to passe under the water, either by

a mans selfe, or in a boate, wherein he might also carry provision; only having a long truncke or pipe, with a tunnell at the top of it; to let downe fresh ayre. But for the prevention of all such conveyances, the antients were wont in their strictest sieges, to crosse the rivers with strong * nets, to fasten stakes in severall parts of the channell with sharpe irons, as the blades of swords, sticking upon them.

* Gen. 1. 10
cap. 37.

3. Hence was it that there have beene other meanes attempted through the open ayre. Either by using birds, as Pidgeons and Swallows insted of messengers, of which I shall treat more particularly in the sixteenth Chapter. Or else by fastning a writing to an arrow, or the weight that is cast from a sling.

3. Through the open ayre.

Somewhat of this nature, was that intimation agreed upon betwixt *David* and *Jonathan*, though that invention doe somewhat favour

1 Sam. 20.

Plinius sive
lib. 8.
cap. 128.

of the antient simplicity and rudeness. It was a more exact invention mentioned by *Herodotus* concerning *Artabazus* and *Timoxenus*, who when they could not come together, were wont to informe one another of any thing that concerned their affaires, by fastning a letter unto an arrow, and directing it unto some appointed place, where it might bee received.

Polyenus
lib. 2.
See Plu-
tarch in
Cimon.

Thus also *Cleonymus* King of *Lacedaemon*, in the siege of the City *Trezene*, enjoyned the Souldiers to shoot severall arrowes into the Towne, with notes fastned unto them having this inscription, ἦκω τίω πόλει ἐλευθεροῦσα I come that I may restore this place to its liberty. Vpon which, the credulous and discontented Inhabitants were very willing to let him enter.

When *Cicero* was so straightly besieged by the *Galls*, that the Souldiers were almost ready to yeeld; *Cesar* being desirous to encourage him

him with the newes of some other forces that were to come unto his ayde, did shoote an arrow into the City, with these words fastned unto it; *Cæsar Ciceroni fiduciam optat, expecta auxilium.* By which meanes the Souldiers were perswaded to hold out so long, till these new succours did arrive and breake up the siege.

The same thing might also be done more securely, by rolling up a note within the head of an arrow, and then shooting of it to a confederates Tent, or to any other appointed place.

To this purpose is that which *Lypsius* relates out of *Appian*; concerning an antient custome for the besieged to write their minds briefly in a little piece of leade, which they could with a sling cast a great distance, and exactly hit any such particular place as should be agreed upon, where the confederate might receive it, and by the same

Galiorcet.
lib. 4. cap.
Dialog. 2.
mentio-
ned also
by *Heliodor.*
Hist. Æthiæ.
lib. 9.

meanes returne an answere.

Of this nature likewise are those kind of bullets, lately invented in these Germane warres, in which they can shoot not onely letters, corne, and the like: but (which is the strangest) powder also into a besieged City.

But amongst all other possible conveyances through the ayre, imagination it selfe cannot conceive any one more usefull, then the invention of a flying charriot, which I have mentioned elsewhere. Since by this meanes, a man may have as free a passage as a bird, which is not hindered, either by the highest walls, or the deepest rivers and trenches, or the most watchfull Sentinels. But of this perhaps I may have occasion to treat more largely in some other discourse.

CHAP. 5.

Of that secrecy which consists in the materials of writing, whether the Paper or Inke.

THE severall inventions of the ancients for the private conveyance, of any written message, were the subject of the last Chapter.

The secrecy of *writing* may consist,

either in } The materials,
 } or
 } The Forme.

1. The *Materials* of writing are the Paper and Inke, (or that which is instead of them), both which may be so privately ordered, that the inscribed sence shall not be discoverable without certaine helpes and directions.

1. The chiefe contrivance of secrecy by the paper, in use amongst
D. 3 the

*Scelenus de
Cryptogra.
lib. 8. c. . 4.*

1. The Pa-
per.

the Ancients, was the *Lacedemonian Scytale*: The manner of which was thus: there were provided two round staves of an equall length and size: the Magistrats alwayes retaining one of them at home, and the other being carried abroad by the Generall, at his going forth to warre. When there was any secret businesse to be writ by it, their manner was to wrap a narrow thong of Parchment about one of these staves, by a serpentine revolution, so that the edges of it might meet close together: upon both which edges they inscribed their Epistle, whereas the Parchment being taken off, there appeared nothing but pieces of letters on the sides of it, which could not be joyned together into the right sence, without the true *Scytale*. Thus is it briefly and fully described by *Ausonius*.

*Ausonius ad
Paulinum.*

*Vel Lacedemoniam Scytalen in nitare
libelli,*

*Segmenta Pergamei, tereti, circumdata
ligno.*

Perpetuo

*Perpetuo inscribens versu, deinde
solutus,
Non respondentes sparsò dabit ordine
formas.*

You may read in *Plutarch*, how by this meanes, *Pharnabaz* did deceive *Lysander*.

'Tis true indeed, that this way was not of such inextricable secrecy, but that a little examination might have easily discover it, (as *Scaliger* truly observes) however in those ages, which were lesse versed in these kinds of experiments, it seem'd much more secret then now it doe's unto us; and in these times, there are such other meanes of private discoursing, which, even *Scaligers* eyes, (as good as they were) could not discover. And therefore it was too inconsiderate, and magisteriall a sentence of him, from thence to conclude, all this kinde of learning to bee vaine and uselesse, serving only for imposture, and to perplex the inquirer.

*In Vita
Lysandri.*

Exerc. 327

*Voces de
Arte Gram.
li. 1. c. 40.*

'Tis certaine that some occasions may require the exactest privacie, And 'tis as certaine, that there may be some wayes of secrecy, which it were madnesse for a man to think he could unfold. *Eurori simile esse videtur, sibi aliquem persuadere, tam circumspetum hominem esse posse, ut se a furtivo quodam scripto, abditæque machinatione tueri possit: nam astans quilibet, vel procul distans loquitur, & factum nunciat, ut non solum à nemine percipiatur, sed ne sic quidem significare quippiam posse existimet, faith Vegetius. And Baptista Porta (who had a strange and incredible ability in discovering of secret writings, yet doth ingeniously confesse, *Multa esse posse furtiva scripta, quæ se interpretaturum quenquam polliceri, furorem ac delirium plane existimarem.**

Veget. de re. milit. lib. 3.

Præm. i. lib. 3. de furtivis notis.

So that though the ancient inventions of this kind, were too easily discoverable, yet *Scaliger* had no reason to conclude this to be a needlesse art, or that therefore hee could unfold

fold any other way that might bee invented. But this by the way.

2. The other materiall of writing is the inke, or that liquor which is used instead of it, by which means also, there are fundry wayes of secrecy, commonly mentioned in naturall *Magicke*.

Thus if a man write with salt *Ammoniack*, dissolved in water, the letters will not appeare legible, till the paper be held by the fire: this others affirm to be true also in the juyce of onyons, Lemons, with diverse the like acid and corroding movstures.

And on the contrary, those letters that are written with dissolved *Alum*, will not be discernable till the paper be dipped in water.

There are some other juyces that doe not appeare, till the paper bee held betwixt a Candle and the eye.

That which is written with the water of putrified willow, or the distilled juyce of Glow-wormes, will not be visible but in the darke, as *Porta* af-

2. *The Inke.*

Porta. Magie, lib. 16. Wecker de Secretis, lib. 14. loach. Fortius Experiment.

Cardan. Subs. lib. 17. Item de varietate lib. 12. cap. 61.

Ibid.

Bibliander de Ratione com. lingua. 1428.

Definitio. lit.
lib. 1. c. 15.

affirmes from his owne experience.

There is also a secret way of writing with two severall inks, both of them alike in colour, but the one being of that nature, that it will easily be rubbed or washed off, and the other not.

A man may likewise write secretly with a raw egge, the letters of which, being thoroughly dryed, let the whole paper bee blacked over with inke, that it may appeare without any inscription. And when this inke is also well dryed, if you doe afterwards gently scrape it over with a knife, it will fall off from those places, where before the words were written.

Those letters that are described with milke, or urine, or fat, or any other glutinous moysture, will not bee legible unlesse dust be first scattered upon them, which by adhering to those places, will discover the writing. This way is mentio-

mentioned by *Ovid*,

*De Art.
Amand.*

*Tuta quoque est, fallitque oculos e la-
ete recenti*

*Litera, carbonis pulvere tange, le-
ges.*

And 'tis thought that *Attalus* made use of this devise, the better to excite the courage of his Souldiers. Being before the Battell to sacrifice to the Gods for successe, as hee pulled out the intrals of the beast, he described upon them these words, *Regis victoria*, which he had before written backward in his hand with some gummy juyce. The intrals being turned up and downe by the Priest to find out their signification, the letters did by that meanes gather so much dust as to appeare legible. By which omen the Souldiers were so strangely heightned in their hopes and valour, that they won the day.

Unto these experiments of secrecy
in

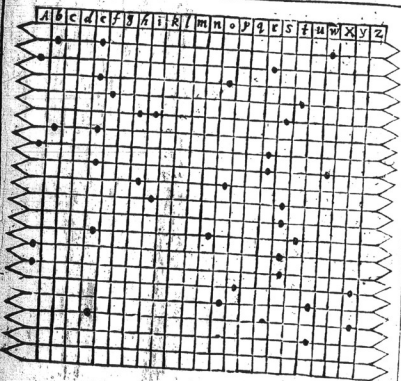
Gall. Sale.
 ma de
 Cryptogra-
 phia lib. 8.
 cap. 3.

in the *Materialls* of writing, some adde those other wayes of expresseing any private intimation by drawing a string through the holes of a little tablet or boord; these holes should bee of the same number with the letters, unto which by compact they should be severally applied. The order of the threeds passing through them, may serve to expresse any words, and so consequently any sence wee would discover.

To this purpose likewise is that other way of secret information, by divers knots tied upon a string according to certaine distances; by which a man may as distinctly, and yet as *Secretly*, expresse his meaning as by any other way of discourse. For who would mistrust any private newes or trechery, to lye hid in a threed, wherein there was nothing to be discerned, but sundry confused knots or other the like marks?

The manner of performing it, is thus. Let there bee a square piece of plate, or Tablet of Wood like a Trencher, with the twenty foure Letters described on the toppe of it, at equall distances, and after any order that may bee agreed upon before hand, on both the opposite sides, let there bee diverse little teeth, on which the string may be hitched or fastned for its severall returnes. As in the following figure.

Where



Where the string is supposed to be fastned by a loope on the first tooth, toward the letter A, and afterwards to be drawne successively over all the rest. The marques upon it doe expresse the secret meaning.

Be-

Beware of this Bearer who is sent as a spie over you. When it is taken off, and sent to a confederate, hee may easily understand its intention, by applying it to his owne Tablet, which must be answerable unto this. The instrument may be made much longer then is here expressed: But if the matter to be revealed should happen to be more then the Tablet would beare, then may it be supplied, either by another string, or else by beginning againe with that part of the same string, wherein the last letter was terminated.

There may be divers other inventions of this kind, but I have not observed any more remarkable, then those which are already mentioned.

CHAP. VI.

*Secret writing with the common letters,
by changing of their places.*

THat secrecy which does consist in the forme of writing, is when the words, or letters are so framed by compact, that they are not of ordinary signification. The inventions of this kind, may both for their pleasure and benefit, justly challenge a place amongst our other studies.

Saint *Austin* speaking of such humane inventions as are to be embraced or avoyded, and rejecting all magicall institutions and commerce with the Devill, he adjoynes. *Ex utroque homines cum hominibus habent, assumenda, & maxime literarum figura, &c.* Ex eo genere sunt etiam nota, quas qui didicerunt, proprie notarii appellantur. *Utilia sunt ista, nec discuntur illicite, nec superstitiose implicant, nec luxu*

*Selenus de
Cryptogra-
phia lib. 2.
cap. 5.*

*Ars notarii
occultandi
inter artes
Subtilitate
prestantes
annume-
randa est.*

*Cardan. 1.
Subtil. l. 17.*

*De Doctrin.
Christiana
lib. 2. c. 26.*

laxa enervant; si tantum occupent, ut majoribus rebus, quibus inservire debent, non sint impedimento.

This way of secret writing, may be contrived, either

1. By the common letters.
2. Or by some invented notes and characters in stead of them.

Both these being distinguishable into those kinds that containe either.

1. Equall.
2. Or more.
3. Or fewer signes then are naturally required to the true framing of the word.

The particulars of these, may be altered to such great variety as cannot be reckoned, and therefore I shall specific those onely which seeme most remarkeable, either for their antiquity or usefulness.

The way of secret writing by equall letters, is either by changing of

1. Their places, or
2. Their powers

E

1. By

1. By altering of the *places*; Either
 of the $\left\{ \begin{array}{l} \text{Lines.} \\ \text{Letters.} \\ \text{Both.} \end{array} \right.$

1. A man may obscure the sense by perplexing the order of the *lines*. If they be written, not onely from the left hand to the right, but also from the right hand to the left, as in the Easterne languages, or from the top to the bottom, and so upward againe, as is commonly related to be usuall amongst the inhabitants of *Taprobana* in the South-sea, with those in *China* and *Iapan*. According to this following example.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| e | r | f | d | l | e | e | l | l | t |
| i | e | t | o | o | f | w | i | i | h |
| l | f | u | u | h | h | s | n | t | e |
| p | h | o | t | o | a | v | c | s | p |
| p | a | h | t | t | l | t | r | h | e |
| u | n | t | h | e | l | s | e | t | s |
| f | d | i | e | l | n | g | a | o | t |
| y | f | w | f | b | o | n | f | d | i |
| d | p | e | i | a | t | o | e | c | t |
| e | e | g | e | e | b | m | a | n | e |

1. By transposing the lines.

Diodor. Sic. Biblioth. lib. 2. Herman. Hugo de orig. Scrib. cap. 8.

In the reading of which, if you begin at the first letter towards the right hand, and so downewards, and then upwards againe; you may find these words expressed.

The pestilence doth still increase amongst us, we shall not be able to hold out the siege without fresh and speedy supply.

2. A man may obscure the sence of his writing, by transposing each letter according to some unusuall order. As suppose the first letter should bee at the latter end of the line, the second at the beginning, or the like.

2 By transposing the letters.

3. The meaning of any written message may be concealed, by altering the order both of the letters and the lines together. As if a man should write each letter in two severall lines, thus.

3 By transposing both the lines and letters.

Tcoliraclmsfmfesplovoueuel
hfudesralotaihduypysremsyid

The Souldiers are almost famished, Supply us, or we must yield.

E 2

This

* Or as many more as the length of the cypistle shall require.

This way may be yet further obscured by placing them in * foure lines, and after any discontinue order. As suppose that the first letter be in the beginning of the first line, the second in the beginning of the fourth line; the third, in the end of the first; the fourth in the end of the fourth; the fifth, in the beginning of the second line; the sixth, in the beginning of the third; the seventh in the end of the second; the eighth, in the end of the third, and so of the rest. As in this example.

W m r p i t a h h s c t e i n p k e
 h a t h f o n o i h k f t o e n i l
 a n o e r r o c g t t t h m n v r l
 e a u o m h t e i n l e n e t t e f

Which in its resolution is this.

*We shall make an irruption upon the
 enemy from the North at ten of the clock
 this night.*

This way will yet seeme more obscure, if each line be severed into such words as may seeme barbarous.

All

All these kinds may be varied unto divers other more intricate transpositions, according as a mans fancy or occasion shall lead him.

CHAP. VII.

Concerning secret writing with equall letters, by changing their powers. The use of this amongst the Jewes and Romanes. The Key-character.

AS a written message may be concealed by changing the places of the letters, so likewise by changing of their powers, putting one of them for another, as suppose L for A, and A for L or the like. Answerable to that kind of Cabalisme in the Jewish learning, which the Rabbies call *מזמזום* or *Combinatio*, when the letters of the Alphabet are severally transposed, and taken one for another, after any knowne order. Of which there be

*Schickard in Bebe-
nath.
Hapernus.
Displ 4.
Glassius
Philolog.
l 2. part. 1.
tract. . .
sect. 3. sect 7.*

as many kinds, as there may be severall combinations of the letters. But amongst the rest, they observe two of more frequent use. The first is stiled from the foure first correspondent letters א ל נ כ *Albam*: in which they are thus opposite to one another.

א ב ג ד ה ו ז ח ט י כ
ל מ נ ס ע פ צ ק ר ש ת

The other is from the same reason called א ח נ ש *Achbassh*, wherein the letters are thus mutually opposed

א ב ג ד ה ו ז ח ט י כ
ת ש ר ק צ פ ע כ נ מ ל

Both these kinds of secret writing the Jewish Doctors thinke to be frequently used by the sacred pen-men of holy writ, amongst whom the Prophet *Isaiah* and *Jeremiah*, are observed to be of more especiall note for their skill in Cabalines.

By the first of these combinations called *Albam*, that place of *Isaiah* 7.6. is usually interpreted; where there is a person mentioned under the unknowne

knowne name of טבאל *Tabaal*, whom the Prophet affirmes to aspire unto the Crowne of *Iudab*, meaning by a secret transmutation of the letters רמלא *Remaliah* the King of *Israel*, whom he was loath more expressely to nominate. And therefore hee veiles it by this kind of secrecy, instead of ר writing the letter above it ט, for מ the correspondent letter ג, and so ל for נ, and נ for ל. Which being joyned together, doe make טבאל, instead of רמלא.

By the second of these combinations called *Athbass*, is that place *Ierem.* 51. 1. translated: where by the originall, לב כמי *Cor insurgentium contra me*, is meant מטרדין the Chaldeans; And therefore both the *Targum* and the *Septuagint* doe unanimously translate it so, as if in their version of it, they had chiefly respected unto this kind of Cabalistic. So likewise in 41. verse of the same Chapter, by the fained name of טטר is meant גבל

Item ca. 25.
v 26. vide
Hieron.
com. in eundem
locum.

The secret and swift

Sueton. in
 vitâ ejus.
 Aul. Gellius
 Noct. Attic.
 lib. 17. c. 9.

This way of secret writing, hath beene also in use amongst the antient Romans; Thus *Suetonius* relates of *Julius Caesar*, when hee would convey any private businesse, he did usually write it, *per quartam elementorum litteram*, that is D for A, E for B. and so of the rest. After this order.

defghijklmnopqrstuvwxyzabc.
 abcdefghijklmnopqrstuvwxyz.

Hasten unto me.

Ldwxhq yqxr ph.

And the same author reports of *Octavius Augustus*, that in the writing of his secrets, hee did *Secundum elementum proprii loco substituere*, set downe the second letter for the first, as B for A, C for B, and for A a double x x.

But now, because such an Epistle might bee easily unfolded, being altogether written by the same way, therefore this kind of secrecy, hath by later invention, beene further obscured, by writing each severall

severall word or line, or letter, by a divers Alphabet.

For the performance of this, two friends must beforehand by compact, agree upon some certaine forme of words, that may be insted of a key, serving both to close, and to unlocke the writing; which words would be lesse discoverable, if they bee barbarous and of no signification.

But for the easier apprehending of this, I shall explain it in an example.

Suppose the key agreed upon, were onely this one word *Prudentia*.

Having first framed severall Alphabets according to each of its letters: Thus,

A b c

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u | w | x | y | z | |
| P | q | r | s | t | u | v | w | x | y | z | a | b | c | d | e | f | g | h | i | k | l | m | n | o |
| R | s | t | u | v | w | x | y | z | a | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q |
| V | w | x | y | z | a | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u |
| D | e | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z | a | b | c |
| E | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z | a | b | c | d |
| N | o | p | q | r | s | t | u | v | w | x | y | z | a | b | c | d | e | f | g | h | i | k | l | m |
| T | u | v | w | x | y | z | a | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q | r | s |
| I | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z | a | b | c | d | e | f | g | h |
| A | b | c | d | e | f | g | h | i | k | l | m | n | o | p | q | r | s | t | u | v | w | x | y | z |

I may write each *line* or *word*, or *letter*, according as the order of these Alphabets shall direct. As in these examples.

1. In the lines.

Ixt hdkasytgh bkiycn
 xfi nrel fx matlmrck;
 npkks pn, im oczs qdff
 uhyrox xr xlh hqmpmh.

2. In the words.

Ixt kfincuaawik gpodhs
 iru acry bs oiwnotem ;
 bdyytg vs, dg lzwp qdff
 uhyrox ys gur ygcfcy.

3. In the letters.

Izz wshemitin pzgcwy
 vfm zean xfkaxxznebr
 skgkoc hm, xr izzb awet
 rtm iox gh cht whmqwy.

Which examples being unfolded,
 doe each of them expresse this inward
 meaning.

*The souldiers mutiny
 for want of victuals;
 Supply us, or they will
 Revolt to the enemye.*

These wayes may be yet further
 obscured, if the first Alphabet, (ac-
 cording to which the rest are descri-
 bed)

bed) be contrived after any mixed order. As suppose instead of the ordinary A b c, &c. there be written these letters after this manner.

Rzkm p seblauft cygwhxoqind.

And then will they be liable to all those other differences of secrecy, that are usually invented by the *wheele-character*, which you may see largely described by *Porta*.

There may be divers other wayes to this purpose, but by these you may sufficiently discern the nature of the rest.

CHAP. VIII.

Of secret writing by more letters then are requisite to the intended meaning.

THe different kinds of secrecy by *equall letters* have beene already handled. The next particular to be discussed, is concerning the wayes of hiding any private sence, under *more letters* then are required to the words of it.

Of which kind there may be divers particulars, some of them in use amongst the Antients.

1. A writing may be so contrived, that onely one letter in a verse shall bee significant. As it was in those remarkeable *Acrosticks* made by a *Sybill* concerning our Saviour: where the letters at the beginning of each verse, being put together, made up these words, *Ιησους χριστος θευ υιος σωτης.*

*Sybillæ
Erythrææ.*

of the Iesus Christ the Sonne of God & Saviour.

Beda lib. de
Sybilis

The translation of these you may see in St. *Augustine de Civit. Dei lib. 18. cap. 23.* And the originall are mentioned by *Ludovicus Vives*, in his notes upon that place.

According unto this, doth *Plautus* contrive the name of his Comedies in the first letters of their arguments. But this way is so ordinary in practise, that it needs not any further explication.

2. The inward sence hath likewise beene conveyed by some single letters of severall words in the same verse. As in that common distich.

*Mitto tibi caput Veneris, ventremque
Diane*

Lacronisque caput, posteriora cane.

3. Sometimes one letter in each word was only significant. By which way of secret expression, the Holy-Ghost (say the Rabbies) hath purposely involved many sacred mysteries

Vale.

ries in Scripture. When these significant letters were at the beginning of each word, the Cabalists, in their learning, called such an implicit writing *ראשי תיבות* *Capita dictionum*. When they were at the latter end, then was it stiled *סופי תיבות* *Fines dictionum*. Both being reckoned as species of that Cabalisme which they called *נוטריקון* *Notaricon*, imposed by some later Rabbies from the Latin word *Notarius*.

Of the first sort, is that collection from those eminent words, Gen. 49. 10. *שֵׁלֹה בְנֵי יִשׂוּבֵנוּ* *Shilo shall come, and in him*, &c. where the capital letters make up the word *ישו* *Iesu*.

So Psal. 73. 17 *וְנִמְנֵם וְיִתְבָּרְכוּ בּוֹ* *His Name shall continue, and in him shall be blessed*, &c. which place do's expressly treat concerning the Messias his name, and therefore seemes unto the Jewes, to be of strong consequence for the prooffe of Christianity. For so much is that

The capital letters.

that Nation befooled in their absurd dotage, upon these triviall literall collections, that a reason of this nature is of greater force unto them, then the most evident, solid demonstration that may be urged. *Ludovicus Carret* a famous Jew, Physician to the French King, being himselfe converted, and writing an Epistle to this purpose, unto those of his owne nation, he do's chiefly insist upon the arguments of this kind, as being in his opinion of greatest efficacy to prove the truth of Christian Religion.

Of the other sort is that passage *Gen. I. I.* אֱלֹהִים בְּרֵאשִׁית where the finall letters make up the word אמת or *Truth*. Which kind of *Cabalisme* is fixe times repeated in the history of the Creation. As if *Moses* by such an artificiall contrivance of the letters at the beginning of his writings, did purposely commend unto our believe his following bookes. Unto this *David* is thought to

Lib. V. de
vitiis Divi.
18711111.

The finall
letters.

to allude *Pfal.* 119. 160. The beginning of thy word is אמת Truth. Of this nature likewise is that observation from *Exod.* 3. 13. יהוה שמו מה יהוה. when they shall say unto me, what is his name, &c. Where the finall letters answered יהוה, *Iehovah.*

It were an easie matter for a man that had leasure and patience for such enquiries, to find out sundry arguments of this kind, for any purpose.

4. There is another way of hiding any secret sence under an ordinarie epistle, by having a * plate with certaine holes in it, through which (being laid upon the paper) a man may write those letters or words, that serve to expresse the inward sence; the other spaces being afterwards filled up with such other words, as in their conjunction to these former, shall conteine some common unsuspected businesse.

5. There is also another intricate way to this purpose, much insisted on by * *Iritemius*, *Porta* and

F

Sylenus.

Cardan de subtil. lib.

17.

Porta de furt. lib. 2. cap. 18.

Such as Printers use when they are to insert diverse red letters amongst the black.

Selenus. When each usuall word or forme of an epistle, is varied to as many differences as there are letters, unto which they must all of them be severally assigned. But these two latter inventions (though they be of great secrecy, yet) because they require so much labour and trouble in the writer, I shall therefore passe them over without any further enlargement.

CHAP. IX.

Of concealing any written sence under barbarous words, and such as shall not seeme to be of any signification. How all the letters may be expressed by any five; three, or two of them. Of writing with a double Alphabet. How from these two last wayes together, there may be contrived the best kind of secret writing.

ALL the wayes of secrecy by more letters, already specified, doe make the writing appeare under some other sence, then what is intended, and so consequently are more free from suspition: There are likewise some other inventions to expresse any inward sence by barbarous words, wherein onely the first, and middle, and last letters shall be significant. As in this example.

Fildy, fagodur wyndeeldrare disc
ogure rantibrad.

Which in its resolution is no
more then this.

Fly for we are discovered.

To this purpose likewise is that
other way of expressing the whole
Alphabet, by any five, or three, or
two of the letters repeated. And
though such a writing, to ordinary
appearance, will seeme of no signi-
fication at all, and so may seeme of
lesse use; Yet because a right appre-
hension of these wayes, may con-
duce to the explication of some
other particulars that follow, it
will not be amisse therefore to set
them down more distinctly.

All the letters may be expressed
by any five of them doubled. Sup-
pose A B C D E.

A B C D E F G H I K L M N
aa ab ac ad ae ba bb bc bd be ca cb cc

M E S S E N G E R

87

O P Q R S T V W X Y Z. &
cd ee da db dc dd de ea eb ec ed. ee

According to which, these words,
I am betrayed, may bee thus descri-
bed.

Bd aacb abaedddbaaacacac.

Three letters being transposed
through three places doe give suffi-
cient difference, whereby to expresse
the whole Alphabet.

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | B | C | D | E | F | G | H | I |
| aaa | aab | aac | baa | bba | bbb | bbc | caa | cca |
| K | L | M | N | O | P | Q | R | S |
| ccb | ccc | aba | abb | abc | aca | acb | acc | bca |
| T | V | W | X | Y | Z | & | | |
| bc | bcb | bcc | bab | cba | cbb | cbe | bac | |

Hasten unto me.

Caa aaa bca bcb bba abb bcc abb
bcb abc aba bba.

The Secret and Swift

The whole Alphabet expressed by any two letters in five places.

Two letters of the Alphabet, being transposed through five places, will yield thirty two differences, and so will more then serve for the foure and twenty letters. Unto which they may be thus applyed.

A . B . C . D . E .
aaaa. aaaab. aaaba. aaabb. aabaa.

F . G . H . I . K .
aabab. aabba. aabbb. abaaa. abbaa.

L . M . N . O . P .
ababa. abaab. abbaa. abbab. abbbb.

Q . R . S . T . V .
abbbb. baaaa. baaab. baaba. baabb.

W . X . Y . Z .
babaa. babab. babba. babbb.

aababababababba aaaaababaaaaababba.

f i y a w a y

There is yet another way of secrecy by more letters then are naturally required to the inward sence, if we write with a double Alphabet, wherein each letter shall in the fashion of it, beare some such small distinction from the other of the same kind, as is usuall in common, mixed writing.

Writing
by a dou-
ble Al-
phabet.

For Example.

The first Alphabet.

F 4

A 0

Aa. Bb. Cc. Dd. Ee. Ff. Gg. Hh.
 Ii. Kk. Ll. Mm. Nn. Oo. Pp. Qq.
 Rr. Ss. Tt. Vv. Ww. Xx. Yy. Zz

The second Alphabet

Aa. Bb. Cc. Dd. Ee. Ff. Gg. Hh.
 Ii. Kk. Ll. Mm. Nn. Oo. Pp. Qq.
 Rr. Ss. Tt. Vv. Ww. Xx. Yy. Zz

1. Write an Epistle of an ordinary matter, or (if it be needfull) contrary to what you intend. Let the body of it consist chiefly of

the first Alphabet, onely inserting
 (as you have occasion) such letters
 of the second, as may expresse that
 inward meaning which you would
 reveale to a confederate.

For example, from those that
 are besieged.

*Wee prosper still in our af-
 faires and shall (without
 having any further helpe)
 endure the siege.*

In which clause, the letters of
 the second Alphabet are onely sig-
 nificant, expressing this inward
 sence.

Wee perish with hunger
 helpe us.

But because the differences betwixt these two Alphabets may seeme more easily discoverable, since they are both generally of the same kind; the letters of the second being all of them more round and full then the other; Therefore for their better secrecy in this particular, it were safer to mixe them both by compact, that they might not, in themselves, be distinguishable.

Now if this kind of writing, be mixed with the latter way of Secrecy, by two letters transposed through five places; Wee may then write *omnia per omnia*, which (as a learned man speaks) is the highest degree of this Cyphering.

For

The best
 way of se-
 cret wri-
 ting.
 Bacon.
 A generall
 scient. l. 6.
 cap. 8.

For supposing each letter of the first Alphabet to be instead of the letter A, and those of the other for B, wee may easily inscribe any secret sence in any ordinary letter, onely by a quintuple proportion of the writing, infolding to the writing infoulded. As for example.

All things do happen according to our desires the particulars you shall understand when wee meete at the appointed time and place of which you must not faile by any means The success of our affairs dos much depend vpon the meeting that wee have agreed vpon.

The involved meaning of which clause is this.

Fly, for we are discovered, I am forced to write this.

If you suppose each letter of the first Alphabet to be instead of A, and those of the second for B, then wil the former clause be equivalent to this following description.

Aabab ababa babba aabab abbab baaaa 'babaz
F l y f o r w

aabaa aabaa aaaaa baaaa aabaa aaabb
e e a r e d

abaaa baaab aaaba abbab baabb aabaa
i f c o v e

baaaa aabaa aaabb abaaa aaaaa ababb
r e d, I a m

aabab

aabab abbab baaaa aaaba aabaa aaabb
 f o r c e d

baaba abbab babaa baaaa abaaa baaba
 t o w r i t

aabaa baaba aabbb abaaa baaab.
 e t h i s .

This way of secrecy may be serviceable for such occasions as these. Suppose a man were taken captive, he may by this meanes discover to his friends the secrets of the enemies Camp, under the outward forme of a letter perswading them to yield. Or suppose such a man were forced by his owne hand writing to betray his cause and party, though the words of it in common appearance may expresse what the enemye do's desire; yet the involved meaning, (which shall be legible onely to his confederates) may containe any thing

thing else, which he ha's a mind to discover to them. As in the former example.

But now if there be a threefold Alphabet, (as is easie to contrive,) then the inward writing will beare unto the outward but a triple proportion, which will be much more convenient for inlarging of the private intimations.

And this way of writing is justly to be preferred before any of the other, as contavning in it more eminently, all those conditions that are desirable in such kind of inventions.

As,

1. 'Tis not very laborious, either to write or reade.

2. 'Tis very difficult to be decyphered by the enemy.

3. 'Tis voyd of suspition.

But

But by the way, 'tis to be generally observed, that the mixture of divers kinds of secret writing together (as suppose this with the key-character) will make the inward sense to be much more intricate and perplexed.

C H A P. IO.

Of writing any secret sense, by fewer letters then are required to the words of it. The use of this amongst the Jews and Romans.

AS the sense may be obscured, by writing it with more letters, then are required to the words of it, so likewise by fewer. Abbreviations have beene anciently used in all the learned languages, especially in common forms, and phrases of frequent use. Somtimes by contracting words, when some parts of them did stand for the whole. So in the Hebrew וכו' for וכליל et totum illud, which is all one with our *et cætera* &c. כלומר for כלומר *Secundum dicere*, equivalent to our *viz.* or *v. g. verbi gratia*. So likewise in the Greek χρισ for χριστός, and ἀν for ἀνθρώπος. And in the Latin Dñs for *DOMINUS*, ā for *ANIMA*, and the like. But these were rather for the speed of writing then the Secrecie.

*Buxtorf. de
Abbruiat.
in in tio.*

Ibid.

Sometimes words were expressed only by their first letters. Thus did the Jews write all their memorialls, and common forms, which are largely handled by *Buxtorfe*. Hence was it, that their Captain *Judas* had his name of *Maccaby*. For being to fight against *Antiochus*, he gave that saying for his watchword, *Ex. 15. מי כמך באלהים. יהוה. Who is like unto thee (O Lord) amongst the Gods?* inscribing in his ensignes the capitall letters of it; *מכבי. Macabi*. Whereupon after the victory, the Souldiers styled their Captaine by that name.

'Tis observed by the Rabbies, that many grand mysteries are this way implied in the words of Scripture. Thus, where it is said, *Psalms. 3. רבים. Many rise up against me:* 'tis interpreted from the severall letters, *Resh* the Romans, *Beth* the Babylonians, *Jod* the Jonians or Grecians, *Mem* the Medes. Answerable unto which, that place in *Gen. 49. 10.* (speaking of *Shilo*, unto whom *יקהת* the gathering of the people shall

shall be) is by another Rabbie applied to the Jews, Christians, Heathens, and Turks.

Upon these grounds likewise, is that argument to prove the Trinity, from the first verse of *Genesis*. בְּרָא אֱלֹהִים. The word אֱלֹהִים *Elohim*, being of the plurall number, is thought to be that divine name, which denoteth the persons of the Deitie; which persons are more particularly intimated in the letters of the verbe בְּרָא, that answers unto it: ב *Beth* being put for בן the Son, ר *Resh* for רוּחַ the Holy Ghost, א *Aleph* for אב the Father. And if you will beleve the Jews, the Holy spirit hath purposely involved in the words of Scripture, every secret that belongs to any Art or Science, under such Cabalisms as these. And if a man were but expert in unfolding of them, it were easie for him to get as much knowledge as *Adam* had in his innocencie, or humane nature is capable of.

These kind of mysterious interpretations

Gen. 17. 5.
15.

tations from particular letters doe seeme to be somewhat favoured, by Gods addition of the letter η unto the name of *Abram* and *Sara*, upon the renewing of his covenant with them: which in all likelihood was not without some secret mysterie. That being the chiefe letter of the *Tetragrammaton*, might perhaps intimate that amongst their other posterity, with the promise of which hee had then blessed them, they should also be the parents of the *Messias*, who was *Jehovah*.

Vide Ter-
tul. l. b. de
prescr. c. 50

This likewise others have confirmed from the example of *Christ*, who calls himself *Alpha & Omega*. *Revel. 1. 8.*

Iren. lib. 1.
cap. 13.

But though such conjectures may be allowable in some particulars; yet to make all Scriptures capable of the like secrets, does give such a latitude to mens roving & corrupt fancies, as must needs occasion many wild and strange absurdities. And therefore *Irenaeus* does fitly observe, that from such idle collections as these, many heresies of the *Valentinians* and *Gnosticks* had their

their first beginnings.

As this way of short writing by the first letters, was of antient use amongst the *Jews*, so likewise amongst the *Romans*: which appeares from many of their contractions yet remaining, as *S.P.D. Salutem plurimam dicit. S.P.Q.R. Senatus populusque Romanus. CR. Civis Romanus. VC. Vrbs cōditā.* And the like.

These single letters were called *Sigla*, per *Synecopes*, from the obsolete word *Sigilla*, whence *Sigillatim*. They were usually inscribed in their coines, statues, arms, monuments, and public records. You may see them largely treated of by *Valerius Probus*, where he affirms the study of them to be very necessary, for one that would understand the Roman affaires. *His enim exprimebant nomina Curiarum, Tribuum, Comitiorum, Sacerdotiorum, Potestatum, Magistratum, Praefectarum, Sacrorum ludorum, Rerum urbanarum, rerum militarium, Collegiorum, Decuriarum, Fastorum, Numerorum, Mensurarum, Juris civilis, & similium.*

Lib. de litter. antiquis.
As it is set forth by *Jacobus Mazochius*

They were first used by the Notaries at Senates and other publike assemblies, and from thence retained in their Statutes & civil Lawes: Whence *Manilius* makes it the note of a good Lawyer.

— *Qui legum tabulas & condita jura
Noverit, atq; notis levibus pendentia verba.*

Thus (saith *Isidor*) (A) inverted V did formerly stand for *pupilla*, and M inverted W for *mulier*. By these letters *DERICP*, is signified *De ea re ita censuerunt patres*.

When the Judges were to inscribe their severall opinions on a little stone or *Tessera*, to be cast into the urne, by the note *A*, they did absolve, by * *K* condemn; by *N.L. Non liquet*, they did intimate that they could not tell what to make of the businesse, and did therefore suspend their judgements.

But because of those many ambiguities, which this contracted way of writing was liable unto, and the great inconveniences that might happen thereupon in the misinterpretation of Lawes:

Isidor.

*Bibliand.
de ratione
com. ling.*

*Pet. Crinät.
Honest.
Disc. lib. 6.
cap. 8.*

* From
the Greek.
κατάκριτος
κατ'

Lawes: therefore the Emperour *Ju-
stinian* did afterwards severely forbid
any further use of them, as it were,
calling in all those Law bookes that
were so written. *Neq; enim licentiam
aperimus ex tali codice in iudicium aliquid
recitari.*

*Lib. 1. Cod.
Tit. 17. leg.
1. 2.*

The chiefe purpose of these antient
Abbreviations amongst the Romans,
was properly for their *speed*. But it is
easie to apprehend, how by compact,
they may be contrived also for *Secrecy*.

CHAP. II.

Of writing by invented Characters.

The distinction of these in- } letters.
to such as signifie either } words.
words. } notions.

*The generall rules of unfolding and obscu-
ring any letter-characters. How to ex-
presse any sense, either by points, or lines,
or figures.*

BESIDES the wayes of Secret wri-
ting by the common letters; there
may

may likewise be divers others by invented notes.

The difference of characters, whereby severall languages are exprest, is part of the second generall curse in the confusion of tongues. For as before there was but one way of speaking, so also but one way of writing. And as now, not only nations, but particular men, may discover their thoughts by any different articulate sounds, so likewise by any written signes.

These invented characters in the generall, are distinguishable into such as signifie either

- 1 Letters.
- 2 Words.
- 3 Things, and notions.

First, concerning those that signifie letters. To which kind, some learned men refer the Hebrew character that is now in use: Affirming that *Ezra* first invented it, thereby the better to conceale the secrets of their Law, and that they might not have so much as their

The letter character.

Hieronym. pref. ad lib. Regum.

Ioseph Scal. notis ad Euseb.

their manner of writing common with the *Samaritans* & other Schismaticks.

'Twere but needlesse to set downe any particulars of this kind, since it is so easie for any ordinary man to invent or vary them at pleasure.

The rules that are usually prescribed for the unfolding of such characters, are briefly these.

1 Endeavour to distinguish betwixt the vowells and consonants. The vowells may be knowne by their frequencie, there being no word without some of them. If there be any single character in English, it must be one of these three vowells, *a. i. o.*

2 Search after the severall powers of the letters. For the understanding of this, you must mark which of them are most common, and which more seldome used. (This the Printers in any language can easily informe you of, who doe accordingly provide their sets of letters.) Which of them may be doubled, and which not, as *H. Q. X. r.* And then for the number of
vowells

vowells or consonants in the beginning, middle, or end of words, a man must provide severall tables, whence hee may readily guesse at any word, from the number and nature of the letters that make it. As what words consist only of vowells; what have one vowell and one consonant, whether the vowell be first. As in these words. *Am. an. as. if. in. is. it. of. on or. us.* Or last, as in these words. *Be. be. me. by. dy. ly. my. ty. do. to. so. &c.* And so for all other words according to their severall quantities and natures.

These tables must be various according to the difference of languages. There are divers the like rules to be observed, which are too tedious to recite. You may see them largely handled by *Baptista Porta*, and *Gustavus Selenus*.

The common rules of unfolding being once knowne, a man may the better tell how to delude them. Either by leaving out those letters that are of lesse use, as *H. K. Q. X. Y.* and putting other

In these cases Orthographic is not to be regarded

other characters instead of them, that shall signifie the vowells: So that the number of this invented Alphabet will be perfect, and the vowells, by reason of their double character, lesse distinguishable. Or a man may likewise delude the rules of discovery, by writing continuately, without any distinction betwixt the words^l, or with a false distinction, or by inserting *nulls* and *non-significants*, &c.

These Characters are besides lyable to all those other wayes, whereby the common letters may bee obscured, whether by changing their *places*, or their *powers*.

The particulars of this kind may be of such great variety as cannot be distinctly recited. But it is the grand inconvenience of all these wayes of secrecie by invented Characters, that they are not without suspicion.

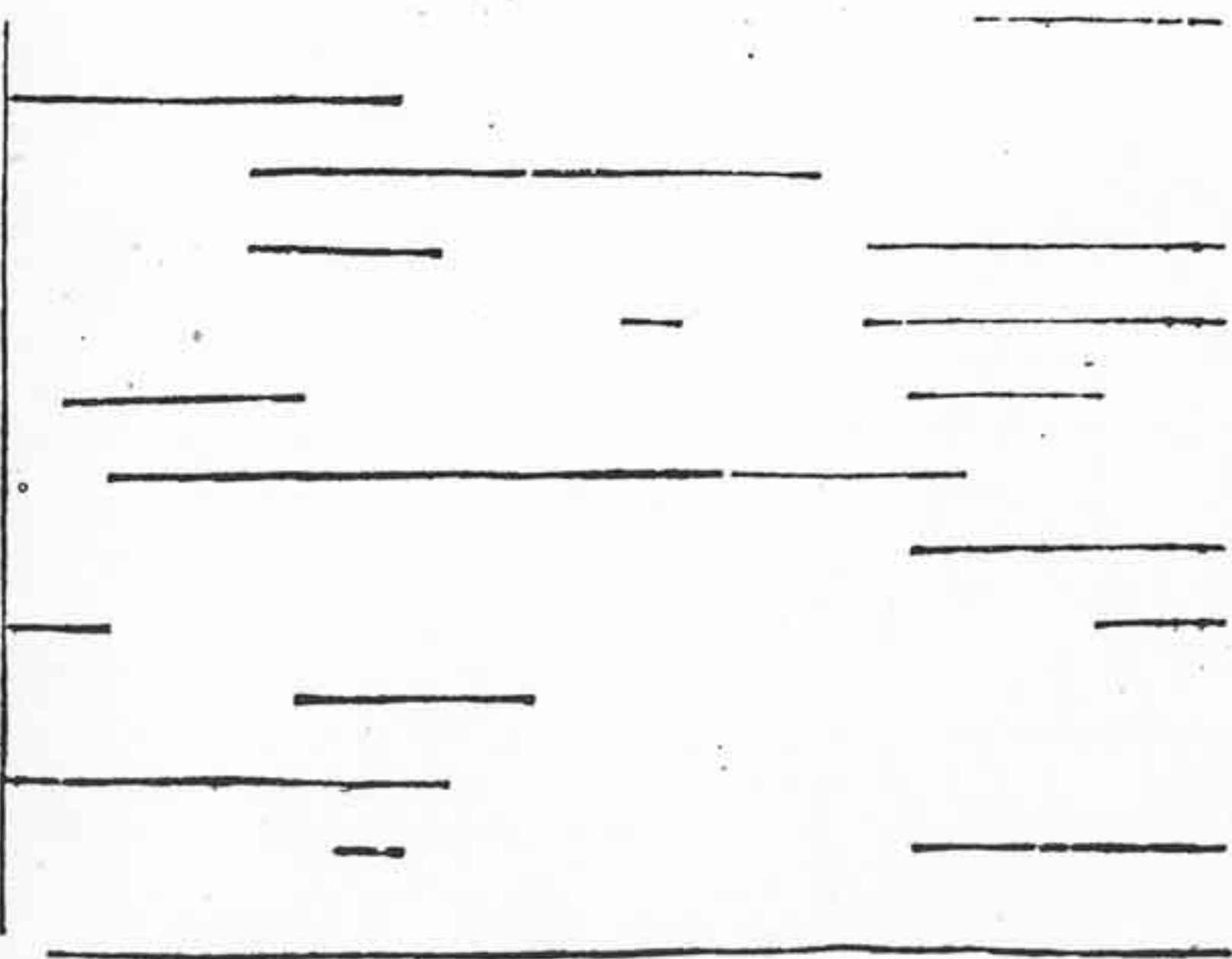
For the remedying of which, there have beene some other inventions of writing by points, or lines, or figures; wherein a man would never mistrust
any

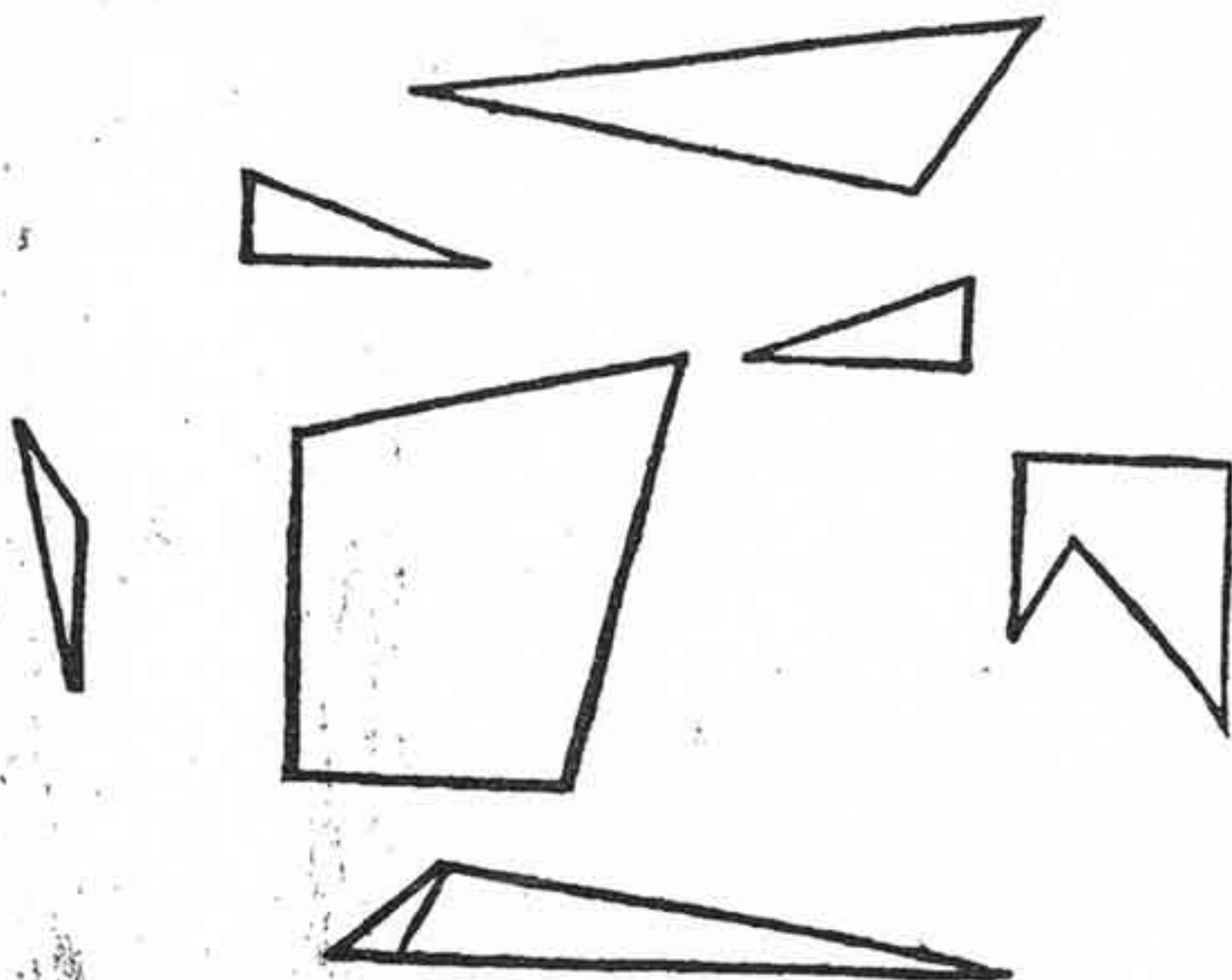
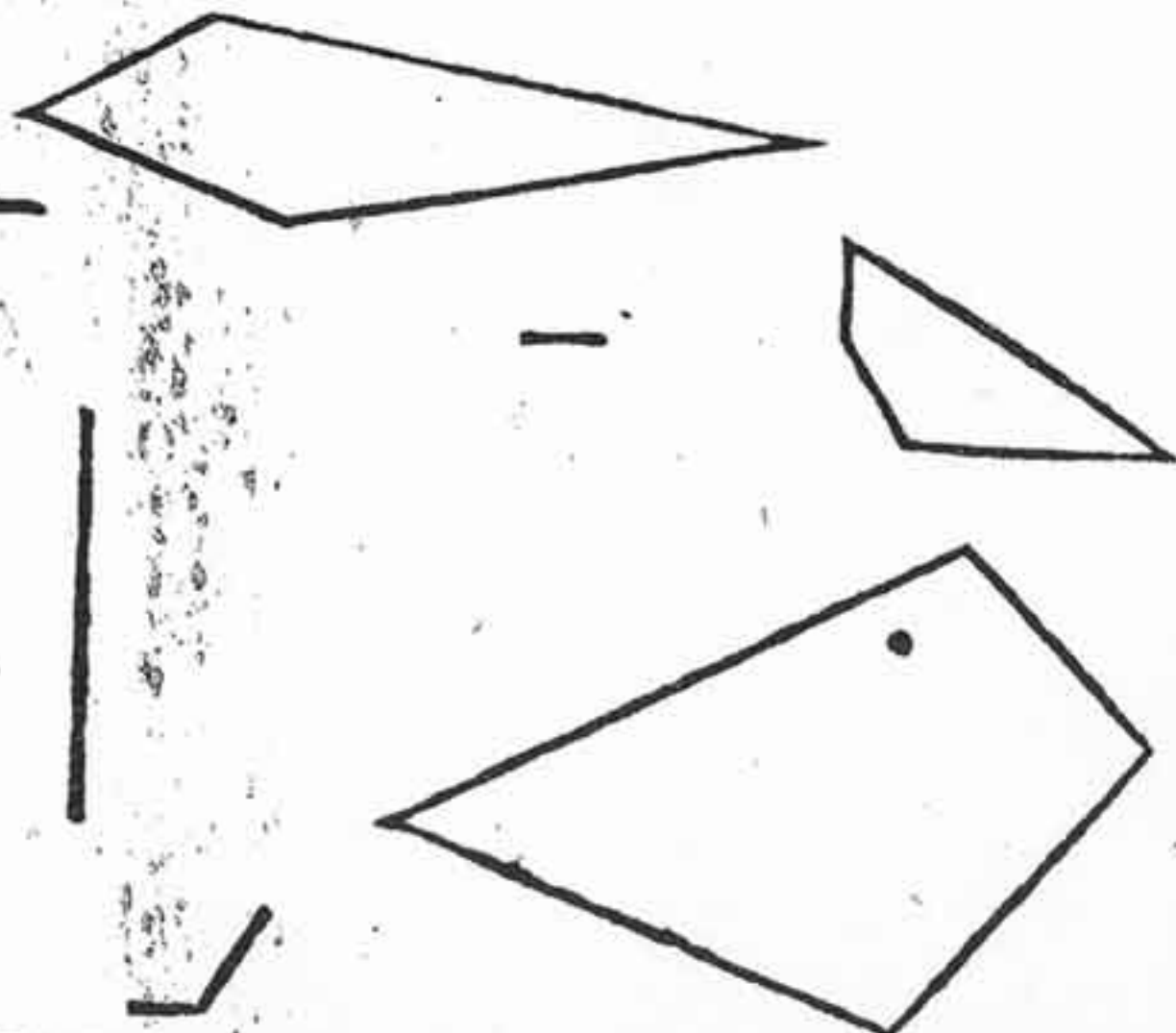
any private message: there being nothing to be discerned in these kindes of intimation, but only, either some confused, and casual, or else some Mathematicall descriptions. As you may see in these following examples.

By points alone.



By lines alone



By Mathematicall Figures.*By Points, Lines, and Figures mixed together.*

Each of which figures doe expresse these words.

There is no safty but by flight.

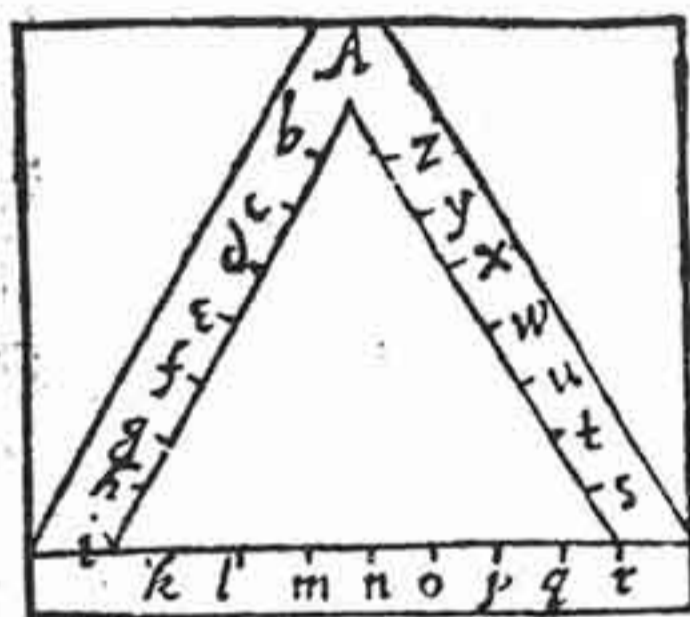
The direction both for the making and unfolding of these descriptions, is this. Let the Alphabet be described at equall distances, upon some thinne and narrow Plate, Pastboard, or the like, thus.



Let the sides of the Paper which you are to write upon, be secretly divided into equall parts, according to the breadth of the Plate: and then by application of this to the Epistle, it is easie to conceive, how such a writing may be both composed and resolved. The Points, the ends of the Lines, and the Angles of the figures do each of them
by

by their different situations, expresse a severall letter.

This may likewise be otherwise performed, if the Alphabet be contrived in a Triangular forme, the middle part of it being cut out.



And so for
a square
or round
form.

The larger these Directories are, by so much the lesse lyable unto errour will the writing be, that is described from them.

It is easie to apprehend, by these particulars, how a man may contrive any private saying in the forme of a Landskip or other picture. There may be divers the like ways whereby this invention of secrecie may be further obscured; but they are in themselves so obvious, that they need not any larger explication.

CHAP.

CHAP. 12.

Of Characters that expresse words. The first invention of these. Of those that signifie things and notions, as Hieroglyphicks, Emblemes.

THe next particular to be discoursed of, is concerning Characters that expresse words. The writing by these, is properly stiled *Stenographie*, or Short-hand, *Scriptura compendium, cum verba non perscribimus sed signamus*, saith *Lypsius*. The art of them is to contrive such figures for severall syllables, as may easily bee joyned together in one forme, according as different words shall require. Thus 'tis ordinary, to represent any proper name, by some such unusuall character, as may contain in it all the letters of that name for which it is intended. Of this nature was that angular figure, so much used by the *Grecians* of old: which might bee resolved into the letters

Cent. 1. ad Belg. Epist. 27.

Schikard. Happer. Disp. 5.

vms.

H

This



This marke was esteemed so sacred amongst the Ancients, that *Antiochus Soter*, a perpetuall conquerour, did alwayes instamp it upon his Coine, and inscribe it on his Ensignes; unto which he did pretend to be admonished in a dream, by an apparition of *Alexander the great*. And there are many superstitious women in these times, who believe this to bee so lucky a character, that they alwayes worke it upon the swadling clothes of their young children, thinking thereby to make them more healthful and prosperous in their lives. Unto this kind also, some referre the characters that are used in Magick, which are mayntained to have, not onely a secret signification, but likewise a naturall efficacie.

This short-hand writing, is now so ordinary in practice (it being usuall for any common Mechanick both to write
and

and invent it) that I shall not need to set downe any particular example of it. In ancient times, it was not so frequently used : But then there was a twofold kind of it.

Private.

Publick.

These private characters were practised by the *Roman* Magistrates, and others of eminent favour amongst them : Who being often importuned to write in the commendation of those persons they knew not, were faine to agree upon some secret notes, whereby their *serious* Epistles, might be distinguished from those of *forme*. Whence the Proverbe arose, *De meliori nota commendare*.

The other characters of publike and common use, are many of them explained by *Valerius Probus* in his booke *de literis antiquis*. And there is a whole Volume or Dictionary of them, set forth by *Janus Gruerus*. From the practice of these came the word *Notarius*, as Saint *Austin* observes.

And therefore *Panceroellus* reckons it amongst these later inventions, *lib. de Reperit. tit. 14.*

Casaubon. notis in Æn. Poliorcet. cap. 31.

De notis Tyronis & Senec. a De doct. Christ. lib. 2 cap. 26.

The first invention of them is commonly ascribed to *Tyro*, who was a servant unto *Cicero*. So ^b *Eusebius*, and ^c *Polyd. Virgil*. But *Trithemius* affirms that *Cicero* himselfe writ a Treatise on this subject, which was afterwards augmented by Saint *Cyprian*. And that hee had found in an old Library, the copy of a Psalter, written in these characters, inscribed by some ignorant man, with this title: *Psalterium in lingua Armenicâ*.

That *Cicero* was not unacquainted with these notes, may be evident from that passage to *Atticus*: *Quod ad te delegatis scripsi, parum intellexit, credo quia sua optavit scripseram.*

Pet. Diaconus attributes the first invention of these, to the old Poet *Ennius*; whose beginnings in this kind, did afterwards receive successive addition, from the works of *Tyro*, *Philargirus*, *Aquila*, and *Seneca* the Father, by whom they were increased to the number of 5000.

But *Hermannus Hugo*, a late Jesuite, will have this short-hand writing to be

b In Chron.
c De inven-
tion: rerum
lib. 2. cap. 8.
De Polygr.

Lib. 13. ad
Attic. ep. 32

Prolog.
not. Con-
rad. Imp.
Isidor. Ori-
gin. lib. 1.
c. 21.

De Orig.
scribendi,
c. 18. juxta
finem.

be of farre more ancient use; affirming that *David* alludes to the practice of it, in that phrase, *Psal. 45. 1. The pen of a ready writer.* And that the writing upon the wall in *Daniel 5. 25.* which so puzzled the *Chaldean* Wizards, was described in such kinde of Characters. But whether this were so or not, is not much materiall: It is sufficiently pertinent to the present enquiry; that the use of these word-characters may well enough conduce to the secrecie of any written message.

The third and last sort of signes, that have been anciently used for the expression of *things* and *notions*, are either *Hieroglyphicks* or *Emblemes*.

I Concerning *Hieroglyphicks*. The word signifies *sacred sculpeures*, which were engraven upon Pillars, Obelisces, Pyramides, and other monuments before the invention of letters. Thus the *Egyptians* were wont to expresse their minds, by the pictures of such creatures, as did beare in them some naturall resemblance to the thing intended.

Of Hieroglyphicks.

Tacit. Annal. lib. 1. 1.

Polyd. Vir.
de Invent.
lib. 9. c. 11.

De honestâ
disciplinâ,
lib. 7. cap. 2
* Lib. de
vita Moÿs.

Lib. 1. Stro-
mat.

Lucan. l. 3.

By the shape of a Bee they represented a King, intimating that hee should be endowed with Industry, Honey, and a Sting. By a Serpent with his taile in his mouth, the yeere, which returnes into it selfe. And (which was a kind of propheticall Hieroglyphicke) by the signe of a Crosse they did anciently denote *spem venturæ salutis*, or *vitam æternam*, as *Pet. Crinitus* relates out of *Ruffinus*. * *Philo* reckons up the knowledge of these, amongst those other abstruse *Egyptian* Arts, wherein *Moses* is said to be so expert. And *Clemens* relates of *Pythagoras*, how hee was content to be circumcised, that so hee might be admitted to the understanding of those many and great mysteries, which were this way delivered by the ancient Priests, who did conceale all their Learning under such kind of *Magicall* expressions, as the Poet styles them.

*Nondum flumineas Memphis contexere byblos
Noverat, & saxis tantùm volucresque feræque,
Sculptaq; servabant magicas animalia linguas.*

Plu-

Plutarch speaks of a Temple in *Egypt* dedicated to *Minerva*, in the front of which, there was placed the image of an *Infant*, an *old man*, a *Hawke*, by which they did represent God, a *Fish* the expression of hatred, and a *Sea-horse*, the common Hieroglyphicke of Impudence. The construction of all being this, *O yee that are born to die, know that God hateth Impudence.*

Of this nature were those presents sent unto *Darius*, when hee was almost wearied in his war against the *Scythians*: which were a *Bird*, a *Mouse*, a *Frog*, and certain *Arrows*: Intimating that unlesse the *Persians* could flie as *Birds*, or hide themselves under water as *Frogs*, or inhabit the cavernes of the earth as *Mice*, they should not escape the *Scythian Arrows*. Of this kinde likewise were some military signes amongst the *Romans*. When any thing was to bee carried with silence and secrecie, they lifted up the representation of a *Minotaur*, thereby teaching the *Captains*, that their counfels and contrivances

*Libro de I-
sid. & Osi-
vide.*

*Herodot.
Melpom.l.4
cap.130.
Clem. Alex.
Strom.5.*

*Pierius Hi-
eroglyph.l.3
cap.38.*

Trivances must be as inextricable as a Labyrinth, which is feigned to be the habitation of that Monster.

2 Like unto these Hieroglyphicks, are the expressions by Emblems. They were usually inserted as ornaments, upon vessels of gold, and other matters of state or pleasure. Of this nature are the stamps of many ancient medalls, the Impresses of Armes, the Frontispices of Books, &c.

The kinds of them are chiefly twofold.

1 *Naturall*, which are grounded upon some resemblance in the proper tie and essence of the things themselves. So a Dolphin which is a swift creature, being described upon an Anchor, which serves for the stay and rest of a Ship, signifies *Festina-lente*, Deliberation in counsell, and Dispatch in execution. A young Storke carrying the old one, Filiall gratitude.

2 *Historicall*; Those that refer to some common relation. So the picture of *Prometheus* gnawed by a Vulture, fig-

Emblems
from the
Greeke
word
ἰμβραῖνοις;
interferere,
injicere.

signifies the desert of overmuch curiositie. *Phaeton*, the folly of rashnesse. *Narcissus* the punishment of self-love.

It was formerly esteemed a great signe of wit and invention, handsomely to convey any noted saying, under such kind of expressions.

CHAP. 13.

Concerning an universall Character, that may be legible to all nations and languages. The benefit, and possibility of this.

After the fall of *Adam*, there were two generall curses inflicted on Mankinde: The one upon their *labours*; the other upon their *language*.

Against the first of these, we do naturally endeavour to provide, by all those common Arts and Professions, about which the World is busied: seeking thereby to abate the sweat of their brows in the earning of their bread.

Against the other, the best help, that wee can yet boast of, is the Latine tongue,

tongue, and the other learned languages, which by reason of their generalitie, do somewhat restore us from the first confusion. But now, if there were such an universall character, to expresse things and notions, as might be legible to all people and countries, so that men of severall Nations might with the same ease, both write and read it; this invention would be a farre greater advantage in this particular, and mightily conduce to the spreading and promoting of all Arts and Sciences: Because that great part of our time, which is now required to the Learning of words, might then be employed in the study of things. Nay, the confusion at *Babel* might this way have been remedied, if every one could have expressed his own meaning by the same kinde of Character. But then perhaps the art of Letters was not invented.

That such a manner of writing is already used in some parts of the World, the Kingdomes of the high *Levant*, may evidently appeare from
divers

divers credible Relations. *Trigaultius* affirms, that though those of *China* and *Japan* doe as much differ in their language, as the *Hebrew* and the *Dutch*, yet either of them can, by this help of a common character, as well understand the books and letters of the others, as if they were only their own.

And for some particulars, this generall kind of writing is already attained amongst us also.

1 Many Nations doe agree in the characters of the common numbers, describing them, either the *Roman* way by letters; as I. II. V. X. C. D. M. OR else the *Barbarian* way by figures, as I. 2. 3. 10. &c. So likewise for that which we call Philosophicall number, which is any such measure, whereby we judge the differences betwixt severall substances, whether in weight, or length, or capacity: Each of these are exprest in severall languages by the same character. Thus ℥ signifies a Scruple, ℥ a Drachme, and so of the rest.

Histor. Sinenf. lib. 1. cap. 5.

Bacon Augment. Sciēt. lib. 6. c. 1. Voss. Gr. lib. 1. cap. 41. Herm. Hugo de orig. scrib. c. 4.

2 The Astronomers of severall Countries doe expresse both the heavenly Signes, & Planets, & Aspects by the same kind of notes. As, γ , δ , π , ξ , &c. η , ψ , ϕ , θ , &c. δ , $*$, Δ , \square , ρ . Which characters (as it is thought) were first invented by the ancient Astrologers for the secrecie of them, the better to conceale their sacred and mysterious profession from vulgar capacitie.

3 The Chymicall Treatises that are written in different languages do all of them agree in the same forme of writing their Minerals. Those that are attributed to any of the Planets are decyphered by the character of the Planet to which they belong. The rest by other particular signes, as Δ for Salt Ammoniack, ρ for Arsnick, &c.

4 Musicall notes in most Countries are the same. Nor is there any reason why there may not be such a generall kinde of writing invented for the expression of every thing else as well as these particulars.

In the contrivance of this there must
be

be as many severall characters as there are primitive words. To which purpose, the *Hebrew* is the best patterne, because that language consists of fewest Radicalls.

Each of these primitives must have some particular marks to distinguish the cases, conjugations, or other necessary variations of those derivatives that depend upon it.

In the reading of such a writing, though men of severall Countries should each of them differ in their voices, and pronounce severall words, yet the sense would be still the same. As it is in the picture of a man, a horse, or tree, which to all Nations doe expresse the same conceit, though each of these creatures be styled by severall names, according to the difference of languages.

Suppose that Astronomical signe α were to be pronounced, a *Jew* would call it \aleph ; A *Grecian* ταῦρον; An *Italian* Toro; A *Frenchman* Taureau; A *German* Siser; An *Englishman* a Bull.

So

So likewise for that character, which in *Tyro's* notes, signifies the world, A *Jew* would reade it יָמִין ; A *Grecian* ἀγορῆς ; An *Italian*, *il mondo*; A *French man*, *le monde*; A *German*, *Belt*. Though severall Nations may differ in the expression of things, yet they all agree in the same conceit of them.

The learning of this character will not be more difficult, than the learning of any one Language, because there needs not be more signes for the expression of things, than there is now for the expression of words. Amongst those in *China* and *Japan*, there is said to be about seven or eight thousand.

The perfecting of such an invention were the only way to unite the seventy two Languages of the first confusion: And therefore may very well deserve their endeavours, who have both abilities and leasure for such kinde of Enquiries.

CHAP. 14.

*Concerning the third way of secret discour-
sing, by signes and gestures, which may
signifie either*

ex } *congruo.*
 } *placito.*

THe third way of discoursing was by signes and gestures, which (as they are serviceable to this purpose) may be distinguished into such as are significant, either

1 *Ex congruo.*

2 Or, *ex placito.*

1 *Ex congruo*, when there is some naturall resemblance and affinity, betwixt the action done, and the thing to be exprest. Of which kind, are all those outward gestures, whereby not only dumbe creatures, but men also doe expresse their inward passions, whether of joy, anger, feare, &c. For,

Sæpe tacens vocem verbaque vultus habet.
And

Prov. 6. 13

And the Wiseman notes it of the scorner, that *hee winketh with his eyes, hee speaketh with his feet, hee teacheth with his fingers.*

Of this kinde likewise are many religious actions, and circumstances of divine worship, not only amongst the ancient Heathen; but some that were particularly enjoined the Priests and Levites of the old Law, and some too, that are now in use, in these times of the Gospell. For by such bodily gestures and signes, we may as well speak unto God, as unto men.

To this kind also are reducible, those actions of *forme*, that are required as necessary circumstances, in many civill affaires, and publike solemnities; which are usually such, as in themselves are apt to signifie the thing for which they are meant.

But now, sometimes the intended meaning of these gestures is concealed under a secret similitude. As it was in that act of *Thrasylus*, who being consulted with, how to mayntain a tyranny,

ny, that was newly usurped: Hee bid the messenger attend him in the field, wherewith his wand he whipt off those higher eares of corne that did overtop the rest; intimating, that it consisted in cutting off the Peeres, and Nobilitie, who were likely to be most impatient of subjection. This I may call a *Parabolicall* way of speaking by Gestures.

2 *Ex placito*, when these signes have their signification from use and mutuall compact; which kind of speaking, as it refers to lascivious intimations, is largely handled by *Ovid. de Arte Amandi*:

*Verba superciliis sine voce loquentia dicam,
Verba leges digitis, &c.*

By the helpe of this it is common for men of severall Nations, who understand not one anothers Languages, to entertain a mutuall commerce and traffique. And 'tis a strange thing to behold, what Dialogues of gestures
I there

there will passe betwixt such as are borne both deafe and dumb; who are able by this meanes alone, to answer and reply unto one another as directly, as if they had the benefit of speech. 'Tis a great part of the state and Majesty, belonging to the Turkish Emperor, that hee is attended by Mutes, with whom hee may discourse concerning any private businesse, which hee would not have others to understand.

It were a miserable thing, for a rationally soule, to be imprisoned in such a body, as had no way at all to expresse its cogitations: which would be so, in all that are borne deafe, if that which nature denied them, were not in this respect supplied, by a second nature, custome and use.

But (by the way,) 'tis very observable which * *Vallesius* relates of *Pet. Pontius* a friend of us, who by an unheard of art taught the deafe to speak. *Docens primum scribere, res ipsas digito indicando, quæ characteribus illis significarentur;*

* *Sacra
Philos.
cap. 3.*

rentur ; deinde ad motus lingue , qui characteribus responderent provocando. First learning them to write the name of any thing , hee should point to ; and afterwards provoking them to such motions of the tongue as might answer the severall words. 'Tis probable , that this invention, well followed , might be of singular use, for those that stand in need of such helps. Though certainly that was far beyond it , (if true) which is related of an ancient Doctor, *Gabriel Neale*, that he could understand any word by the meere motion of the lips, without any utterance.

The particular wayes of discoursing by gestures, are not to be numbred, as being almost of infinite variety, according as the severall fancies of men shal impose significations , upon all such signes or actions, as are capable of sufficient difference.

But some there are of more especial note for their use and antiquity. Such is that upon the joynts and fingers of the hand, commonly stiled *Arthrologia*,

* *Lib. de loquela per gestum digitorum sive de indigitatione.*

* *Hieroglyphic. lib. 37. c. 1. & c. Calius Antiq. lect. 1. 23. cap. 12. Satyr. 10.*

or *Dactylogia*, largely treated of by the venerable * *Bede*, * *Pierius*, and others. In whom you may see, how the Ancients were wont to expresse any number, by the severall postures of the hands and fingers; The numbers under a hundred, were denoted by the left hand, and those above, by the right hand. Hence *Juvenal*, commending *Pylas* for his old age, sayes that hee reckoned his yeeres upon his right hand.

*Felix nimirum qui tot per secula vitam
Distulit, atque suos jam dextera computat
ANNOS.*

There are divers passages in the ancient Authors, both sacred and profane, which do evidently allude to this kind of reckoning.

Hence it is easie to conceive, how the letters, as well as the numbers, may be thus applyed to the severall parts of the hand, so that a man might with divers touches, make up any sense, that he

hee hath occasion to discover unto a confederate.

This may be performed, either as the numbers are set downe, in the Authors before cited, or else by any other way of compact that may be agreed upon.

As for example. Let the tops of the fingers signifie the five vowels; the middle parts, the five first consonants; the bottomes of them, the five next consonants; the spaces betwixt the fingers, the foure next. One finger laid on the side of the hand may signifie T. Two fingers V the consonant; Three W. The little finger crossed X. The wrist Y. The middle of the hand Z.

But because such various gesticulations, as are required to this, will not be without suspition; therefore it were a better way, to impose significations, upon such actions as are of more common unsuspected use: As scratching of the head, rubbing the severall parts of the face, winking of the eyes, twisting of the beard, &c. Any of which, or

all of them together, may be as well contrived to serve for this purpose, and with much more secrecie.

In which art, if our gaming Cheats, and popish Miracle-impostors, were but well versed, it might much advantage them, in their coufening trade of life.

C H A P. 15.

Concerning the swiftnesse of informations, either by qualities, as the impression of imagination, and the sensitive species; or by spirituall substances, as Angels.

HAVING already treated concerning the severall wayes of *secrecy* in discoursing, I shall in the next place enquire, how a man may with the greatest *swiftnesse* and *speed*, discover his intentions to one that is far distant from him.

There is nothing (wee say) so swift
as

as thought, and yet the impression of these in another, might be as quick almost as the first act, if there were but such a great power in imagination, as some later * Philosophers have attributed to it.

Next to the acts of thought, the species of sight, doe seeme to be of the quickest motion. Wee see the light of the East will in a moment fill the Hemisphere, and the eye does presently discern an object that is very remote. How we may by this means communicate our thoughts at great distances, I shall discourse afterwards.

The Substances that are most considerable for the swiftnesse of their motion, are either

Spirituall.

Corporeall.

Amongst all created substances, there are not any of so swift a motion as Angels or Spirits. Because there is not either within their natures, any such indisposition and reluctancie, or without them in the medium, any such im-

* *Marfil.*
Ficin. Theolog. Platon.
lib. 3. cap. 1.
Pomponatius de Incantat.
Paracelsus.

Spirits.

pedi-

pediment as may, in the least manner retarde their courses. And therefore have the ancient Philosophers imployed these as the causes of that mad celerity, of the celestiall Orbs; though according to their suppositions I thinke it would bee a hard match, if there were a race to be run, betwixt the *Primum mobile*, and an Angell. It being granted that neither of them could move in an instant, it would be but an even lay, which should prove the swifter.

From the fitnessse of spirits in this regard, to convey any message, are they in the learned Languages called Messengers.

Now if a man had but such familiaritie with one of these, as *Socrates* is said to have with his Tutelary *Genius*: If wee could send but one of them upon any errand, there would bee no quicker way then this for the dispatch of businesse at all distances.

That they have been often thus imployed, is affirmed by divers relations.

Vati.

אֲנֵלִי

ἄγγελος
Angelus.

Plutarch.

Maximus

Tyrius.

Dissertat.

26, 27.

Vatinius being in *Rome*, was informed by an apparition, of that victory which *Paulus* their Generall had obtained over King *Perses* in *Macedon*, the very same day wherein the battaile was fought; which was a long time before any other Messenger could arrive with the new.

And it is storied of many others, that whilst they have resided in remote Countries, they have known the death of their friends, even in the very houre of their departure: Either by bleeding, or by dreams, or some such way of intimation. Which, though it be commonly attributed to the operation of sympathy; yet it is more probably to be ascribed unto the Spirit or Genius. There being a more especiall acquaintance and commerce, betwixt the Tutelary Angels of particular friends, they are sometimes by them informed (though at great distances) of such remarkable accidents as befall one another.

But this way, there is little hopes to ad-

Lactant.
Inst. lib. 2.
ep. 8.
Val. Max.
lib. 1. c. 8.
Florus lib. 2
cap. 12.

advantage our enquiry, because it is not so easie to imploy a good Angell, nor safe dealing with a bad one.

The Abbot *Trithemius*, in his books, concerning the severall ways of secret and speedy discoursing, does pretend to handle the forms of conjuration, calling each kinde of character by the name of spirits, thereby to deterre the vulgar from searching into his Works. But under this pretence, hee is thought also to deliver some Diabolicall Magick. Especially in one place, where he speaks of the three Saturnine Angels, and certain Images, by which, in the space of twenty foure houres, a man may bee informed of newes from any part of the World. And this was the maine reason, why by *Junius* his advice, *Frederick* the second, Prince Palatine, did cause the originall Manuscript of that worke to bee burned. Which action is so much (though it should seem, unjustly) blamed by *Selenus*.

Vossius
Gram. lib. 1
cap. 41.

Polygraph.
lib. 3. c. 16.

Cryptogra.
l. 3. cap. 15.

CHAP. 16.

Concerning the swiftnesse of conveyance by bodies, whether inanimate, as Arrows, Bullets; or animate, as Men, Beasts, Birds.

THe *bodies* that are most eminent for their swiftnesse, may be distinguished into such as are

either } inanimate.
 } animate.

These inanimate bodies, as Arrows, Bullets, &c. have only a violent motion, which cannot therefore be continued to so great a distance, as some occasions would require: But for so much space as they doe move, they are far swifter then the naturall motion of any animated body. How these have been contrived to the speedy conveyance of secret messages, hath been formerly

Inanimate bodies.

merly discoursed, in the fourth Chapter, which I now forbear to repeat.

Those living bodies, that are most observable for their speed, and celerity in messages: are either Men, Beast, Birds. Though I doubt not, but that Fishes also may be serviceable for this purpose, especially the Dolphin, which is reported to be of the greatest swiftnesse; and most easily tamed, or made tame.

Men.

Amongst the ancient Footmen, there are some upon record for their incredible swiftnesse. *Ladas* is reported to be so quick in his running: *Vt arenis pendemibus & cavo pulvere, nulla indicia relinqueret vestigiorum*, that hee left no impression of his footsteps on the hollow sands. And it is related of a boy amongst the *Romans*, being but eight yeares old, that did run five and forty mile in an afternoone. *Anistius* and *Philonides*, two footmen unto *Alexander* the great, are said to have run 1200 *Stadis* in a day. Which relations will seeme lesse incredible, if wee consider the

Solinus.
Polybist.
c. 6.

ibid.

the ancient Exercises and Games of this kind, together with the publicke fame and rewards for those that were most eminent.

Amongst the variety of beasts, there are some of more especiall note for their strength and swiftnesse. *Scaliger* mentions a story, (though hee distrust the truth of it) of a certaine beast called *Elend*, two of which being joyned in a little cart, are said to passe three hundred leagues a day upon the ice.

In former ages, and in other Countries, the Dromedary, and Camell, and Mule were of more common use: But in these times and places, the horse (for the most part) serves instead of them all; by the helpe of which, wee have our swiftest meanes of ordinary conveyance. The custome of riding post, by renewing both horse and man at set stages, is of ancient invention. *Herodotus* relates it to be used by *Xerxes* in the *Græcian* war, and that it was by the *Persians* called *Αγγαπτιον*. The particulars that concerne these kind of conveyances

Swiftnesse
of Beasts.

Exer. 205.

Lib. 8 98.

ces amongst the Ancients, are largely handled by *Hermannus Hugo lib. de origine scribendi, cap. 14.*

Nat. Hist.
L. 8. cap. 42.

Pliny tells us of certain Mares in *Lusitania*, which doe conceive meerly by the Westwind; that alone (without the copulation of any male) serving to actuate their heat, and to generate their young. Which are likewise mentioned by *Virgil*.

Georg. 3.

*Exceptantq; auras leves, & saepe sine ullis
Conjugiis, venio gravida, &c.*

Mee thinkes, these children of the wind, should for their fleetnesse, make excellent post-horses, and much conduce to the speedy conveyance of any message.

The *Paracelsians* talke, of naturall means to extract the metall and spirit out of one horse, and infuse it into another, of enabling them to carry a man safely and swiftly, through enemies, precipices, or other dangerous place. And such Horses (say they) were used
by

by the Wisemen of the East at our Saviours Nativity : for they had not otherwise beene able to have kept pace with a star, or to have passed so great a journey as it was to *Jerusalem*, which is thought to be five or six hundred miles at the least, from the places of their habitation. If this conceit were feasible, it would much promote the speed of conveyances, but I thinke it may justly bee referred amongst the other dreames of the Melancholicke Chymicks.

Amongst all animate bodies there is not any, that have naturally so swift a motion as birds. Which if a man could well imploy in the dispatch of any errand, there would be but little fear that such messengers should be either intercepted, or corrupted.

That this hath been attempted, and effected by many of the Ancients, is affirmed by divers relations. *Pliny* tells us of *Volaterranus*, that hee discovered a conquest hee had gotten, unto the City of *Rome*, by sending out swallows, which

The swift-
ness of
Birds.

Nat. Hist.
l. 10. c. 24

which should fly thither, being anointed over with the colour of victory. And of another, who sending one of these Birds into a besieged City, (whence shee was before taken from her young ones) and tying a string unto her with certaine knots upon it, did thereby shew, after what number of dayes their aids would come, at which time they should make an irruption upon the enemy.

And elsewhere in the same booke, he relates, how *Hircius* the Consul, and *Brunus*, who was besieged in *Mutina*, did this way mayntaine mutuall intelligence, by tying their Letters unto such Pigeons', as were taught before hand to fly from the tents to the Citie, and from thence to the Tents again.

How *Thaurosthenes* did by this means send the news of his victory at *Olympia*, to his Father at *Aegina*, is related by *Ælian*.

Anacreon has an Ode, upon such a Pigeon, which hee himselfe had often used

Cap. 37.

Histor. Animalium, l. 6
cap. 7.

used as a Messenger, wherein the Bird is fained to say,

Ἐγὼ δ' Ἀνακτοῖον
 Διαβοῶ τ' ὀσπύτα
 Καὶ τοῦ ὄρατος κείνου
 Ἐπιστολὰς κομίζω.

Unto this invention also, *Juvenal* is thought to allude, where he sayes,

Satyr. 4.
 juxta finem.

--- *tanquam è diversis partibus orbis,
 Anxia præcipit i venisset epistola pennâ.*

Lysius relates out of *Varro*, that it was usuall for the *Roman* Magistrates, when they went unto the Theater, or other such publike meetings, whence they could not returne at pleasure, to carry such a Pigeon with them: that if any unexpected businesse should happen, they might thereby give warning to their friends, or families at home.

Saturn.
 Serm. lib. 2.
 cap. 6

By which relations, you may see, how commonly this invention was practised amongst the Ancients. Nor hath it beene lesse used in the later times,

Not. in *Aeneae. Polior-
cet. cap. 31.*

Comment. in
*Veget. L. 3.
c. 5.*

See *Nunt. Inanimat.*
concer-
ning *A-
miraldus.*
*Porta de
fort. lit. li. 2
cap. 21.*
concer-
ning *Mar-
ches.*
*Herm. Hu-
go. de Orig.
scribendi
cap. 15.*
*Thuanus
Hist. lib. 17*

times, especially in those Countries, where by reason of continuall wars, and dissentions, there have beene more particular and urgent necessity for such kind of conveyances. *Nunc vulgaris-
sima res est, columbas habere, ad ejusmodi
jussa paratus,* saith *Casaubon.* *Harum ope-
re, nostrates hoc bello civili, frequenter ad-
juti sunt,* saith *Godesc. Stewechius.*

There are divers other stories to this purpose, but by these you may sufficiently discern the common practices of this kinde. As it is usuall to bring up birds of prey, as Hawks, Cormorants, &c. to an obedience of their keepers: So likewise have some attempted it in these other Birds, teaching them the art of carrying messages. There is a smaller sort of Pigeons, of a light body, and swift flight, which is usuall made choice of for such particulars; And therefore the kinde of them is commonly called by the name of Carriers.

CHAP. 17.

*Of secret and swift informations by
the species of sound.*

HAVING in the former Chapters treated severally concerning the divers wayes of secrecy and switnesse in discourse ; It remaynes that I now enquire (according to the method proposed) how both these may be joyned together in the conveyance of any message. The resolution of which, so far as it concernes the particulars already specified, were but needlesse to repeat.

That, which does more immediatly belong to the present *Quære*, and was the mayne occasion of this discourse, does refer to other ways of intimati-
on, besides these in ordinary use, of speaking, or writing, or gestures. For in the generall wee must note : That
whatever is capable of a competent difference, perceptible to any sense, may be a suf-

sufficient means, whereby to expresse the cogitations. It is more convenient indeed, that these differences should be of as great varietie, as the letters of the Alphabet; but it is sufficient if they bee but twofold, because two alone, may with somewhat more labour and time, bee well enough contrived to expresse all the rest. Thus any two letters or numbers, suppose A. B. being transposed through five places, will yield thirty two differences, & so consequently, will superabundantly serve for the foure and twenty Letters, as was before more largely explained in the ninth chapter.

Now the sensitive species, whereby such informations must be conveyed, are either the species of *sound*, or the species of *sight*. The eare and the eye, being the only senses, that are of quick perception, when their objects are remote.

Vegetius distinguisheth all significant signes into these three sorts.

De militari,
lib. 3.
cap. 5.

- 1 *Vocalia*. By articulate sounds.
- 2 *Semivocalia*. By inarticulate sounds.
- 3 *Muta*. By the species of sight.

The two last of these are chiefly pertinent to the present enquiry. Concerning which, in the generall it may be concluded, that any sound, whether of Trumpets, Bels, Cannons, Drums, &c. or any object of sight, whether flame, smoake, &c. which is capable of a double difference, may be a sufficient meanes, whereby to communicate the thoughts.

The particular application of these, to some experiments, I shall treat more distinctly in the remaynder of this discourse.

First, concerning the secrecy and swiftnesse of any message by the species of sound. Though these audible species be much slower then those of sight; yet are they far swifter then the naturall motion of any corporeall messenger. The chiefe use of these is for

Secret and speedy information by the species of sound.

Such as are within some competent neernes, as perhaps a mile of. But they may also by frequent multiplications, be continued to a far greater distance.

Proem. in
lib. Plutar.
de defectu
oraculorum.

There is a relation in *Joach. Camera-rius*, of some that have heard their friends speaking to them distinctly, when they have been many miles asunder. *Habui notos homines, neque leves, & non indoctos, qui affirmabant, se audisse secum colloquentes diserte, eos quos tunc multorum millium passuum abesse certo scient.* But this hee justly refers to Diabollieall Magick, and the illusion of spirits.

There are other *naturall* experiments in this kind, of more especiall note for their antiquity. Such was that of King *Xerxes*, related by *Cleomenes*, as he is cited by *Sardus*. *Cleomedes in libro de circulis caelestibus scribit Xerxem toto itinere a Perside in Græciam stationes statuisse, & in iis homines ita prope, ut vocem alterius alter exaudiret; quo modo quadraginta horarum spatio, ex Græciâ in Persidem res nunciari poterat.* But this in-

De rerum
Inventor.
lib. 2.

invention, besides the great trouble and uncertainty of it, is also too grosse for imitation, favouring somewhat of the rudenes of those former and more barbarous ages.

Much beyond it was that experiment of the *Romans*, in the contrivance of the *Picts* wall, related by our learned *Cambden*, this wall was built by *Severus* in the North part of *England*, above a hundred miles long. The towers of it were about a mile distant from one another. Betwixt each of these towers there passed certaine hollow pipes or trunks in the curtaines of the wall, through which the Defendants could presently informe one another of any thing that was necessary. As concerning that place wherein the enemy was most likely to assault them, &c.

Since the wall is ruined, and this means of swift advertisement taken away, there are many inhabitants thereabouts, which hold their Land by a tenure in *Cornage* (as the Lawyers speak) being bound by blowing of a

K 4 Horne,

Britan. de Vallo sive the Picts wall. p. 654 Boter. Geog. l. 2. & lib. 4 where hee mentions also another wall of 8000 furlongs in China.

Horne to discover the irruption of the enemy.

Fabul. 9.

There is another experiment to this purpose mentioned by *Walchius*, who thinks it possible so to contrive a trunk or hollow pipe, that it shall preserve the voice entirely for certain houres or days; so that a man may send his *words* to a friend instead of his *writing*. There being always a certaine space of intermission; for the passage of the voice, betwixt its going into these cavities, and its comming out; hee conceives, that if both ends were seasonably stopped, whilst the sound was in the midst, it would continue there till it had some vent. *Huic tubo verba nostra insusurremus, & cum probe munitur tabellario committamus, &c.* When the friend to whom it is sent, shall receive and open it, the words shall come out distinctly, and in the same order wherein they were spoken. From such a contrivance as this, (saith the same Authour) did *Albertus Magnus* make his Image, and Frier *Bacon*, his brazen Head, to utter certaine words.

words. Which conceit (if it have any truth) may serve somewhat to extenuate the grosse absurdity of that popish relique concerning *Josephs* [Hah] or the noise that hee made (as other Carpenters use) in fetching of a blow: which is said, to be preserved, yet in a glasse amongst other ancient Reliques.

But against these fancies it is considerable, that the species of sound are multiplied in the ayre, by a kinde of continuation and efflux from their first originall, as the species of light are from any luminous body; either of which being once separated from their causes doe presently vanish and die. Now as it would be a mad thing for a man to endeavour, to catch the Sunbeams, or inclose the light; upon the same grounds likewise must it needs be absurd, for any one to attempt the shutting in of articulate sounds: Since both of them equally have the same intrinsicall and inseparable dependance upon their efficient causes.

True, indeed, the species of sound
may

may seeme to have some kinde of selfe continuance in the ayre, as in Ecchoes, but so likewise is it in a proportion with those of sight, as in the quick turning round of a fire-sticke, which will make the appearance of a fiery circle: And though the first kinde of these be more lasting then the other, by reason their naturall motion is not so quick, yet neither of them are of such duration as may be sufficient for the present enquiry.

None of all these inventions already specified, doe sufficiently performe the businesse, that is here enquired after: Nor are they, either so generally or safely, appliable for all places and exigences.

The discovery that is here promised, may be further serviceable for such cases as these.

Suppose a friend were perfidiously clapped up in some close Dungeon, and that wee did not know exactly where, but could only guesse at the place, within the latitude of halfe a mile or
some-

somewhat more : A man might very distinctly by these other inventions discourse unto him. Or suppose a Citie were straitly besieged, and there were either within it or without it, such a confederate, with whom wee should necessarily confer about some designe : We may by these means safely discover to him our intentions. By which you may guesse, that the Messenger which is here imployed, is of so strange a nature, as not to be barred out with walls, or deterred by enemies.

To the performance of this, it is requisite, that there be two Bels of different notes, or some such other audible and loude sounds, which we may command at pleasure; as Muskets, Canons, Horns, Drums, &c. By the various sounding of these (according to the former Table) a man may easily expresse any letter, and so consequently any sense.

These Tables, I shall again repeat in this place. That of two letters may be contrived thus.

Cap. 9.

A.

| | | | | |
|-----------------------------|--------|--------|--------|--------|
| A. | B. | C. | D. | E. |
| aaaaa. | aaaab. | aaaba. | aaabb. | aabaa. |
| F. | G. | H. | I. | K. |
| aabab. | aabba. | aabbb. | abaaa. | abaab. |
| L. | M. | N. | O. | P. |
| ababa. | ababb. | abbaa. | abbab. | abbba. |
| Q. | R. | S. | T. | V. |
| abbbb. | baaaa. | baaab. | baaba. | baabb. |
| W. | X. | Y. | Z. | |
| babaa. babab. babba. babbb. | | | | |

Suppose the word *Visuals*, were this this way to be exprest. Let the bigger found be represented by A. and the lesser by B. according to which, the word may be thus made up by five of these founds for each letter.

| | | | | |
|----------------------|--------|--------|--------|--------|
| V. | I. | C. | T. | V. |
| baabb. | abaaa. | aaaba. | baaba. | baabb. |
| A. | L. | S. | | |
| aaaaa. ababa. baaab. | | | | |

That is, the lesser note founded once, and then the bigger twice, and then again the lesser twice, as (baabb) will signi-

signifie the letter (Y). So, the bigger once, and then the lesser once, and after that the bigger thrice together, as (abaaa) will represent the letter (I:) and so of the rest.

If the sounds be capable of a triple difference, then each letter may be expressed by a threefold sound, as may appear by this other Alphabet.

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| A. | B. | C. | D. | E. | F. | G. | H. |
| aaa. | aab. | aac. | baa. | bab. | bba. | bbb. | bbc. |
| I. | K. | L. | M. | N. | O. | P. | Q. |
| caa. | cba. | cbb. | cbc. | cca. | ccb. | ccc. | aba. |
| R. | S. | T. | V. | W. | X. | Y. | Z. |
| abb. | abc. | aca. | acb. | acc. | bca. | bcb. | bcc. |

| | | | | | | | |
|------|------|------|------|------|------|------|------|
| V. | I. | C. | T. | V. | A. | L. | S. |
| acb. | caa. | aac. | aca. | acb. | aaa. | cbb. | abc. |

If these sounds do contain a quintuple difference, then may every letter be signified by two sounds only, (which will much conduce to the speed and dispatch of such a message.) As you may see in this other Table.

An

A. B. C. D. E. F. G. H. I. K. L. M.
 aa. ab. ac. ad. ae. ba. bb. bc. bd. be. ca. cb.
 N. O. P. Q. R. S. T. V. W. X. Y. Z.
 cc. cd. ce. da. db. dc. dd. de. ea. eb. ec. ed.

V. I. C. T. V. A. L. S.
 de. bd. ac. dd. de. aa. ca. dc.

De furt. lit.
lib. 1. cap. 6.

Tis related by *Porta*, that when the Citizens in the siege of *Navarre* were reduced to such great extremities that they were ready to yield; they did discover to their friends the greatnesse, and kind of their wants, by discharging divers Canons and Ordinances in the night time, according to a certaine order before agreed upon: and by this means did obtain such fitting supplyes as preserved the City.

CHAP.

CHAP. 18.

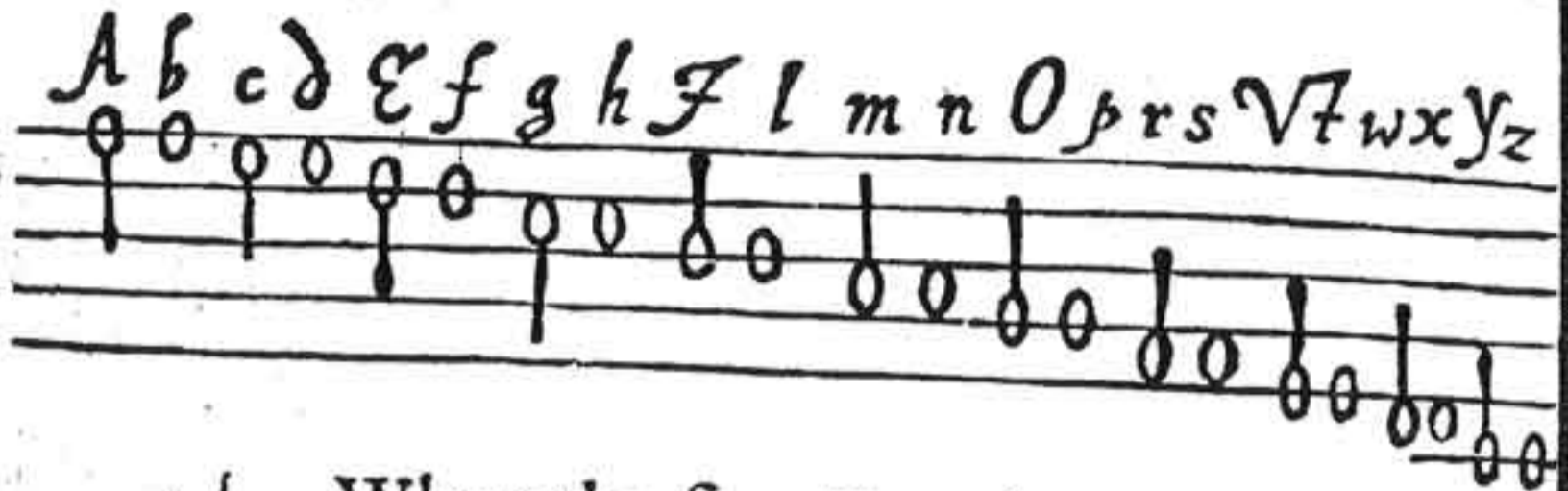
Concerning a language, that may consist only of Tunes and Muscally Notes, without any articulate sound.

IF the Muscally Instrument that is used to this purpose, be able to expresse the ordinary notes, not only according to their different *Tones*, but their *Times* also; then may each Letter of the Alphabet be rendred by a single sound.

Whence it will follow that a man may frame a Language, consisting only of Tunes and such inarticulate sounds, as no Letters can expresse. Which kind of speech is fancied to be usuall amongst the Lunary Inhabitants; who (as * *Domingo Gonsales* hath discovered) have contrived the Letters of the Alphabet upon the Notes after some such order as this:

Where

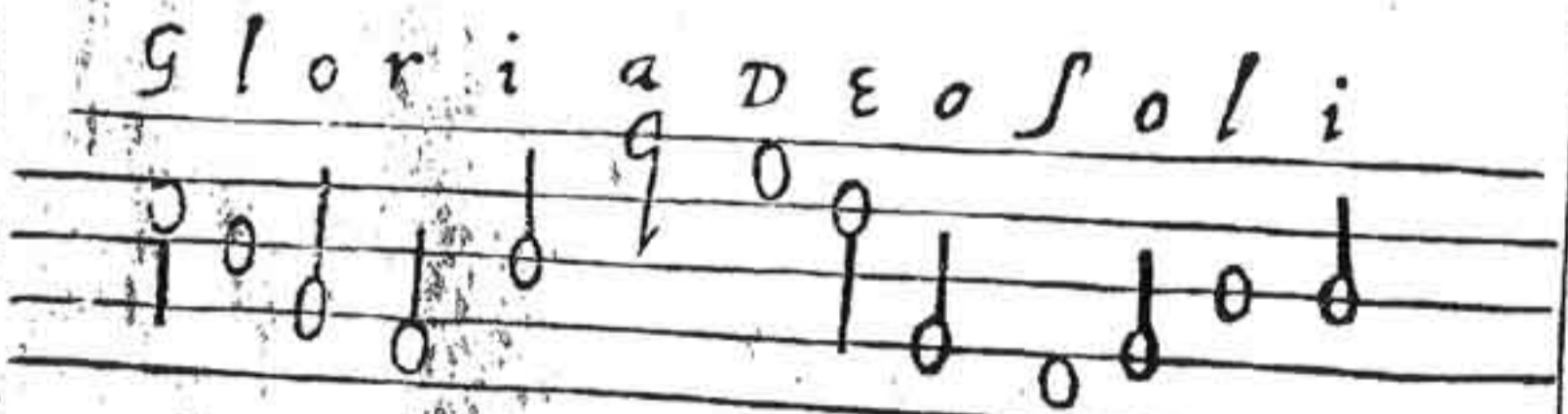
* Of the man in the Moon, written by the same Author of *Nuntius Inanimat.*



Where the five Vowels are represented by the Minnums on each of the five lines, being most of them placed according to their right order and consequence: only the letters K. and Q. are left out, because they may be otherwise expressed.

According to this Alphabet of Notes, these words, *Gloria Deo soli*, must be thus contrived.

See Dom.
Gonsal.
94.



By this you may easily discern how two Musicians may discourse with one another, by playing upon their Instruments

ments of *Musique*, as well as by talking with their instruments of *speech*. And (which is a singular curiosity) how the words of a Song may be contrived in the tune of it.

I suppose that these letters and notes might be disposed to answer one another, with better advantage then here they are expressed. And this perhaps, would bee easie enough for those that are thoroughly versed in the grounds of *Musique*, unto whose further enquiry, I doe here only propose this invention.

But now if these inarticulate sounds be contrived for the expression, not of *words* and *letters*, but of *things* and *notions*, (as was before explained, concerning the universall Character) then might there bee such a generall Language, as should be equally speakable, by all people and Nations; and so we might be restored from the second generall curse, which is yet manifested, not only in the confusion of *writing*, but also of *speech*.

The *utterance* of these Musically tunes may serve for the universall *language*, and the *writing* of them for the universall *Character*. As all Nations do agree in the same conceit of things, so likewise in the same conceit of Harmonies.

This Curiosity (for ought I know) has not yet beene mentioned by any Author, but it may be (if well considered) of such excellent use, as to deserve a more full and particular enlargement, in a Treatise by it selfe.

CHAP. 19.

Of those common relations, that concerne secret and swift informations by the species of sight, which are either Fabulous, or Magicall.

THe usuall relations, that concerne secret and swift conveyances by the species of sight, may be distinguished into such as are, either

- 1 Fabulous.
- 2 Magicall.
- 3 Naturall and true.

First of those that are fabulous: In which kind, that of the loadstone is most remarkable, as it is maintained by * *Famianus Strada* in his imitation of *Lucretius* his stile, and divers others. The manner that is usually prescribed for the performance of it, is thus. Let there be two needles provided, of an equall length and bignesse, being both of them touched with the same loadstone. Let the letters of the Alphabet be placed in the circles on which they

1 Of those fabulous relations to this purpose. Lib. 2. prolus. 6.

are moved, as the points of the compass under the needle of the Mariners Chart. Let the friend that is to travaile take one of them with him, first agreeing upon the dayes and houres, wherein they should conferre together: At which times, if one of them move the needle of his instrument to any letter of the Alphabet, the other needle by a Sympathie, will move unto the same letter in the other instrument, though they be never so farre distant. And thus by severall motions of the needle to the letters, they may easily make up any words or sense which they have a mind to expresse.

*O utinam hæc ratio scribendi prodeat usu;
Cautior & citior properaret epistola, nullas
Latronū veritas insidias, fluviosq; morantes,
Ipse suis princeps manibus sibi conficeret
rem, &c.*

Saith *Strada*. But this invention is altogether imaginary, having no foundation in any reall experiment. You may see it frequently confuted, in those that treat concerning magneti-
call

call vertues. *Non solum exhibilandi sunt, sed etiam male mulctandi Philosophicâ ferulâ, fabularum isti procusores, qui suis portentis deterrent homines à præclarissimo causarum studio, faith Cabæus, to this purpose.*

*Philosop.
Magnet.
lib. 4. c. 10.*

The first occasion of these relations, was the prooffe of that strange immateriall powers of the loadstone, whereby it did work through thick and solid bodies, as a table, or wall, or the like: as also of that directive vertue, whereby it alwayes tends to the poles; From whence others have conjectured, that it might be serviceable also, for such a businesse, at so great a distance.

But against this, it is considerable,

1 That every naturall agent, is supposed to have some certaine sphere, which determines its activity.

2 That magneticall operations doe not arise (as some fondly conceive) from a Sympatheticall conformation of natures, which is the same at all distances; but from such a diffusion of these magneticall qualities through

the *medium*, that they may be continued from the agent to the patient. And so these naturall powers, will not be of so great an extent, as they are supposed in this experiment.

The utmost distance, at which wee may discourse with another, by these magneticall vertues, is two or three foot or thereabouts; And this wee may doe, though it be through a wall of that thicknesse. *Fieri enim posse me docuit experientia, ut ope Magnetis, & instrumenti ad id aptati, amicus cum amico, in cubiculo proximo, trans crassum murum (puta bipedalem) colloquatur, animi sui sententiam impertiat, & ad quaesita respondeat,* (saith a late Author.) But in this experiment, it is not only the secondary vertue of the needles that can be thus effectuell (as is supposed in the former invention) but there must be the help also of the loadstone it selfe.

As for the reason why these magneticall powers are able to worke through solid bodies; 'Tis considerable, that any quality may be diffused through

S. Ward.
magnetis
Reduct. cap.
40.
See Cabæus
Phil. Magn.
lib. 4. c. II.

through such a substance, as hath no naturall repugnancie unto it. Wee see the light does passe as wel through hot bodies as cold, through solid as fluid, &c. only Opacitie keeps it out; because that quality alone is contrary to its nature. So likewise is it with magneticall vertues, which doe equally spread themselves, through all kind of bodies, whether *rare* or *dense*, *diaphanous* or *opacous*, there being no quality contrary to this; because it is that generall endowment of the whole globe, that universall quality to which all other particulars are naturally subservient.

The second sort of relations to this purpose, are such as referre to *diabolicall Magick*; Of which kind is that invention thought to be, which is commonly ascribed to *Pythagoras*; of whom it is reported, that hee could write any thing in the body of the Moone, so as it might be legible to another at a great distance. *Agrippa* affirmes this to be naturally possible, and the way of performing it, not unknown to himselfe,

2 Magi-
call.

Occult. Phi-
1 s. lib. 1.
cap. 6.

Optic. lib. 3.
prop. 36.
Speculorum
persuasio
huc perua-
sit, &c.

selfe, with some others in his time. And *Fridericus Risner* seemes to beleeve it. For speaking of the strange experiments to be wrought by some glasses, he adds. *Denique certo artificio, depictas imagines, aut scriptas literas, nocte serena, plenae lune sic opponi possunt, ut radiis lunam irradiantibus, ideoq; reflexis, videas & legas, quae Constantinopoli Lutetiam tibi nuncientur.*

There is an experiment in Opticks to represent any writing by the sunbeams, upon a wall or front of a house: For which purpose, the letters must be first described, with wax or some other opacous colour, upon the surface of the glasse, in an inverted forme; which glasse, afterwards reflecting the light upon any wall in the shade, will discover these letters in their right forme and order. Unto some such invention, I did first (before I had well considered these particulars) attribute the performance of those strange promises in *Nunius inanimatorum*. But upon better thoughts, it will be found, that the

World in
the Moon.
ca. 7.

the species of reflexion, in this experiment, are so weake, that unlesse the glasse and the letters be very bigge, and the wall somewhat neere, there will be no distinct appearance of the writing. And therefore this way, there can be no thoughts of contriving any reflected species, that shall be visible at so great a distance as the Moone. Nor is there any other naturall means conceiyeable, by which so strange an effect may be performed, which is the reason that it is so frequently attributed to diabolicall Magick, by almost all the Writers that have occasion to treat of it.

But *Agrippa* in another place speaking concerning this invention, affirmes that it was performed thus. *Pythagoras* did first describe with blood any letters which hee thought fit, in some great glasse, and then opposing the glasse against the full Moone, the letters would appeare thorough it, as if they were writ in the circumference of her body. *Quæ collibuisse sanguine per-*
scripsit

Agrippa
de Vanit.
Scient. cap.
 48.

scripsit in speculo, quo, ad pleni luminis lunæ orbem obverso, stanti à tergo, res exaratas in disco lunæ monstravit. In which passage he seemes to intimate, that this writing in the Moone, could not be visible at any great distance (as it is related in common tradition,) but that it did appeare to such onely, betwixt whose eyes and the Moone, this glasse might be interposed. And according to this the wonder of the relation ceases, nor may it truly be referred to Diabollicall Magick.

More properly reducible to this kind, are those inchaunted glasses, mentioned in divers Authors: In which some Magitians are said to containe such familiar spirits, as doe informe them of any businesse they shall enquire after. I have heard a great pretender to the knowledge of all secret Arts, confidently affirme, that he himselfe was able at that time, or any other, to shew me in a glasse what was done in any part of the world, what ships were sailing in the *Mediterranean*,
 who

*Joach. Camerac. Pro-
 æm. in lit.
 Plutarc. de
 defect. Orac.*

who were walking in any street of any Citie in *Spaine*, or the like. And this hee did averre, with all the laboured expressions of a strong confidence. The man, for his condition, was an Italian Doctor of Physick: for his parts, hee was knowne to be of extraordinary skill, in the abstruser Arts, but not altogether free from the suspicion of this unlawfull Magick.

C H A P. 20.

Of informations by significatory fires and smokes. Their antiquity. The true manner of using them to this purpose. That these were meant in Nuntius inanimatus.

THe experiments of this kind that are true, & upon naturall grounds, have beene made either by fire in the night, or smoke and such other signes visible at a distance in the day time.

These informations by significatory fires, have beene of ancient use. The first invention of them is commonly ascribed to *Sinon* in the Trojan warres. *Specularem significationem Trojano bello Sinon invenit* (saith *Pliny*.) This was the signe upon which he agreed to unlock the wooden horse.

— — *Flammas cum regia puppis
Exiulerat.* — —

But *Diodorus Siculus* affirmes them to be practised by *Medea* in her conspiracie with *Jason*. And they are frequently mentioned

*Nat. Hist.
lib. 7. c. 56.*

Virgil.

*Bibliothec.
lib. 4.*

mentioned in other ancient Historians. * *Herodotus* speaks of them in the Grecian warre against *Xerxes*. And * *Thucydides* testifies of them in the onsets that were made by the *Peloponnesians* against *Salamis*, and in the siege of *Corcyra*. *Appian* speaking of *Scipio* at *Numantia*, how he divided his campe into divers companies, saies that he assigned each of them to severall tribunes, with this charge. *Si impiterentur ab hoste, de die, * panno rubro in basta sublato significarent, de nocte, igne.* If the enemy did charge any of them, they should signifie it to the others, in the day time by holding up a red cloth, in the night by fires. *Vegetius* affirmes it to be usuall, when the Army was divided, to informe one another, in the day by smoke, in the night by fires. These significatory fires were by the Grecians called *σύντοι*, (saith *Suidas*) and sometimes *πυροτα*. The use of them was chiefly for the answer of some particular *Quære*, that was before agreed upon: As concerning the comming of aydes

* *Polymn.*
lib. 7. cap.
182.
* *Hist. lib. 2*

Item lib. 3.

So *Curius*
of *Alex. M.*
lib. 5.

* To this
purpose
the flags
of truce or
defiance.

De re mili-
tar. lib. 3.
cap. 5.

Lyps. de mi-
lit. Roman.
lib. 5. Dia-
log. 9.

Aeneas Poli-
orcci. e. 31.

Schol. in lib.
2. Thucyd.

Wecker de
Secretis. lib.
14. cap. 1.
Port. de
furt. lib. lib.
1. cap. 10.
Cardan. de
Variet. Re-
rum. lib. 12.
cap. 61.
* Histor. lib.
10. juxta
finem.

By ten
torches.

or enemies : if the enemies were coming, they were wont to shake these torches ; if the aydes, they held them still (saith the *Scholias*t upon *Thucydides*.)

But they have by more exact inventions, beene enlarged to a greater latitude of signification. So that now, any thing which wee have occasion to discover, may be expressed by them.

The wayes by which they may be contrived to this purpose, are divers. I shall specifie only the chiefe of them.

That which in ancient times was used by the Grecians, and is particularly treated of in * *Polybius*, adviseth thus.

Let the letters be divided into five tablets or columnes.

| | I | II | III | IV | V |
|---|---|----|-----|----|---|
| I | a | f | l | q | w |
| 2 | b | g | m | r | x |
| 3 | c | h | n | s | y |
| 4 | d | i | o | t | z |
| 5 | e | k | p | u | |

Let

Let there be provided ten Torches ; five being placed on the right hand, and five on the left. Let so many torches be lifted up on the right hand as may shew the number of the table , and so many on the left , as may shew the number of that letter in it , which you would expresse. As in this following example , wherein the severall numbers, both at the right and left hand, doe signifie the word HASTEN.

The right hand.

The left hand.

| |
|-----|
| II |
| I |
| IV |
| IV |
| I |
| III |

| |
|---|
| H |
| A |
| S |
| T |
| E |
| N |

| |
|---|
| 3 |
| I |
| 3 |
| 4 |
| 5 |
| 3 |

That is, two lights being lifted up on the right hand, shew the second columnne ; and at the same time three torches appearing on the left hand, denotes

notes the third letter in that columnne, which is *H*. Thus a single torch being discovered on both sides, doth signifie the first letter of the first columnne, which is *A*, and so of the rest.

By 3 Torches.
*Lib. de Ex-
perientia.*

There is another way mentioned by *Joachimus Fortius*, unto the performance of which, there are onely three lights required. One torch being shewed alone, shall signifie the eight first letters. *A.B.C.D.E.F.G.H*. Two together, the eight next, *I.K.L.M.N.O.P.Q*. And all three the rest. *R.S.T.V.W.X.Y.Z*.

One light being discovered once, signifies *A*. If twice, *B*. Two lights being shewed once, doe denote the letter *I*; if twice, *K*, &c.

According to this way, if I would expresse the word *FAMINE*: the torches must bee contrived. One light must be lifted up six times for the letter *F*. One light once for *A*. Two lights foure times for *M*. Two lights once for *I*. Two lights five times for *N*.

But

seeme unto your confederate to be about foure cubits distance: By the diuers elevations or depressions of these, enclining of them to the right hand, or to the left, severally or both together, it is easie to expresse all the Alphabet.

One light alone being discovered, must stand for *A*. lifted up for *E*. depressed for *I*. enclined to the right hand for *O*. unto the left hand for *V*.

Two lights elevated, for *B*: depressed for *C*: enclined to the right hand for *D*: to the left hand for *F*:

Two lights being still discovered, and the torch at the right hand being lifted up, shall signifie *G*. Being depressed, *H*. Inclined to the right hand, *K*. To the left hand, *L*.

The torch at the left hand, being elevated shall stand for *M*. Depressed, for *N*. Inclined to the right hand for *P*.

To

To the left hand for *Q*.

The torch at the right hand being moved towards the left hand, and that at the left hand, being at the same time moved towards the right hand, shall signifie, *R*. The right hand torch being enclined to the left hand, and the other at the same time being elevated signifies, *S*: being depressed, *T*. The left hand torch being enclined to the right hand, and the other at the same time being elevated, signifies *W*: being depressed, *X*.

The right hand Torch being enclined to the right hand, and the other at the same time being elevated, may stand for *r*; being depressed for *Z*.

When any thing is thus to be expressed; the two torches, being discovered, must remaine without any motion, so long, till the confederate shall by other lights shew some signe, that hee is ready to take notice. After

every one of these particular motions, the torches must be carefully hidden and obscured, that so the severall letters expressed by them, may be the better distinguished.

The day-time informations by smoke, cannot so conveniently be ordered according to this later contrivance. And therefore must be managed by some of those other wayes, that were specified before. To which purpose there must be some tunnells provided for the orderly inclosing and conveying up the smoke. The other particulars concerning this, are in themselves easie enough to bee apprehended.

How these signifiatory signes will be visible at a great distance; How by multiplication of them in severall places, they may be contrived for many scores of miles; will easily bee discerned from the situation and use of Beacons: by which the intimations
of

of publike danger and preparations, have been oftentimes suddenly spread, over this whole Iland.

This may further be advantaged, by the use of *Galileus* his perspective.

'Tis storied of the Inhabitants in *China*, that when any Merchants doe happen upon the shores of that Kingdome, they are presently examined, whence they come, what commodities they bring, and of what number they are; Which being knowne, the watch (set for that purpose) doe presently informe the King of their answers, by smoke in the day, and fires in the night: Who by the same meanes do's as speedily returne them his pleasure, whether they shall be admitted or kept out. And so that is easily dispatched in some few houres, which could not be performed the ordinary way, without the trouble of many dayes.

Busbequius.
Epist. Turc.
ep 4.

Polyb. lib.
10.

The practise of all these secret and swift Messages, may perhaps seeme very difficult at the first: But so do's also the Art of writing and reading to an unlettered man. Custome and experience will make the one as facill and ready as the other.

That these wayes of information already explained, whether by the species of *sound* or *sight*, are the same with those intimated in *Nuntius inanimatus*, may be clearely evident, to any one who do's but thoroughly peruse that discourse, and compare it with divers other the like passages, of the same Author, in his *Domingo Gonsales*.

Nunt Inani.
pag. 16.

1. For the species of sound, his words are these. *Aurius nihil percipi nisi per sonum, neminem fugit. Erit igitur necesse ut is, cui aliquid auditu mediante nunciatum fuerit, sonos audiat, eosque distinguibiles pro numero audiendorum; que cum sint infinita, infinita etiam sit oportet, sonorum edendorum varietas.*

rietas. Satis tamen erit ut distinguantur vel genere, vel tempore, modo etiam & numero. Which passage, together with that other invention in *Domingo Gonsales*, concerning the Language of the Lunary Inhabitants, before explained in the eighteenth Chapter: I say, both these, being compared with the discoveries and experiments of the same kind, that are here discoursed of, may plainly manifest, that they are both performed by the same means.

2 For the Species of sight, his words are these. *Si oculis amici absentis aliquid cupis representare, idque citius quam corpus aliquod sublunare ad locum tam longo intervallo disjunctum possit perferri; oportet ut ideae, sive formae visibiles, augeantur quantitate, multiplicentur numero, & pro rerum significandarum varietate variantur, vel qualitate, vel quantitate, vel situ, vel ordine.* Which passage being compared with that other way of compact, betwixt *Gonsales* and his man *Diego*, mentioned in the other

Nunc. Inanim. p. 16.

Man in the Moon. pag 28.

Discourse; It may evidently appeare, that the wayes of intimation, which were there meant, are performed after the same manner, according to which they are here discoursed of.

He does indeed mention out of *Busbequins*, the practice of these informations amongst the inhabitants of *China*. And thinks that they were used too by the *Romans*, but withall he wonders, how that now amongst us, they should be altogether forgotten, and the restoring of them to these places and times, seems to be his chiefe ayme, in the promises of that discourse.

The particular example which hee mentions, is this. Suppose that one at *London*, would send a message to *Bristol*, *Wells*, *Exeter*, or though it were any remoter place: *Neque enim longinquitatem via multum moror, si detur facultas sternendi, & permeabilem efficiendi.* That is, the greatnesse of distance can be no impediment, if the space betwixt be

be fitted with such high Mountaines, and Beacon Hills, as may serve for these kinde of Discoveries. Suppose (I say) this Messenger should set forth from *London*, in the very point of noon, hee would notwithstanding, arrive at *Bristow* before twelve of the clock that day. That is, a Message may by these means be conveyed so great a distance, in fewer minutes then those which make the difference betwixt the two Meridians of those places.

If according to this, we should interpret, that passage out of *Trihemius*, concerning the three *Saturnine* Angels, that in twenty foure houres can convey news from any part of the World; that Author might then, in one respect be freed from the aspersion of Diabolical Magick, which for this very reason hath heretofore been imputed to him. But this by the way.

See before
Cap. 15.

It may be, the resolution of those great promises in *Nuncius Inanimatus*, to
such

such easie causes as they are here ascribed unto, will not be answerable to mens expectation. every one will bee apt to mistrust som greater matter then is here exprest: But 'tis thus also, in every other the like particular, for ignorance is the mother of wonder, and wonder does usually create unto it self many wilde imaginations, which is the reason why mens fancies are so prone to attribute all unusual and unknowne events, unto stranger causes shen either nature or art hath designed for them.

Conclusion.

The Poets have fained *Mercury* to be the chiefe Patron of Thieves and treachery,

ἀρχὸς κλεψίων.

To which purpose they relate that hee filched from *Venus* her girdle, as shee embraced him in congratulation of a victory, that hee robbed *Jupiter* of his Scepter, and would have stolne his
Thun-

*Horat. lib. 1
Od. 10.
Ovid. Me-
tavn. lib. 11
Homer. in
Hymnis.*

*Nat. comes
Mytholog.
lib. 5. cap 5.*

Thunderbolt too, but that he feared to burne his fingers. And the Astrologers observe, that those who are born under this Planet, are naturally addicted to theft and cheating.

If it be feared that this Discourse may unhappily advantage others, in such unlawfull courses: Tis considerable, that it does not only teach how to deceive, but consequently also how to discover Delusions. And then besides, the chiefe experiments are of such nature, that they cannot be frequently practised, without just cause of suspicion, when as it is in the Magistrates power to prevent them. However, it will not follow, that every thing must be suppress, which may bee abused. There is nothing hath more occasioned troubles and contention, then the art of writing, which is the reason why the Inventor of it, is fabled to have sowne Serpents teeth; And yet it was but a barbarous act of *Thamus*, the *Egyptian* King, therefore to forbid the learning of

*Celi. Rhod.
antiq. Lect.
lib. 22. cap.
15.*

James 3. =

of Letters. Wee may as well cut out our tongues, because that member is a *world of wickednesse*. If all those usefull inventions that are lyable to abuse, should therefore be concealed, there is not any Art or Science, which might be lawfully profest.

* *

*

FINIS.