A Ariplet of Anventions. = PI NGATHMBE E

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# TRIPLET ofINVENTIONS, CONSISTING OF <br> A DESCRIPTION of 

A
NOCTURNAL OR DIURNAI

## TELEGRAPH;

A PROPOSAL for
AN UNIVERSAL CHARACTER;

AND
A SCHEME

FOR FACILITATING

## THE PROGRESS OF SCIENCE,

Exemplified in the Ofteological Part of Anatomy.

By THOMAS NORTHMORE, Efq. M. A, F.S.A.


TRINTED AND SOLD BY R. TREWMAN AND SON;
AND
J. OWEN, PICCADILLY, LONDON.

In tenui labor, at tenuis non gloria; $\sqrt{2}$ quem Numina leva finunt.


## TO MY FRIEND

## WILLIAM BURDON, Ese.

Fellow of Emanuel College, Cambridge:
"P Parturiunt montes; nafcetur ridiculus mus.
" IN your tranflation of Plutarch's "Treatife on the Diftinction between " a Friend and a Flatterer, you figni" fied your intention of publifhing the " original with notes; and now for", footh! you prefent us with nothing " but two ftale inventions, and an "Eutopian prodigy." Have patience, my excellent Northumbrian, all in good time; exifing circumfances are materially changed, and man, you know, is a creature of circumftances,
" a recipient of perceptions." I now therefore beg your acceptance of there trifies, they may ferve to relax your mind from feverer ftudies; I wifh, in relaxing your mind, they could in the leaft contribute towards a reftoration of your health.

Two of the following inventions; viz. the Telegraph and Universal Character, have, as you know, already appeared in public, during the courfe of laft year, in the Repertory of Arts and Manufactures. To the latter of them I have added nothing new ; to the former only an abridged tranflation of a paffage in Polybius. Indeed from the refemblance of the French Telegraph to that of Polybius, as far as relates to the end in view, I am almort inclined to believe that the author of the former was led to turn his thoughts

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(v)
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to the fubject from an acquaintance with the latter, more particularly as Rollin in his Ancient Hiftory has given a copious account of it. Be that as it may, I am firmly perfuaded that if a man of fenfe were attentively to perufe the various inventions of the Ancients, with the view of felecting fuch of them as appeared to him of importance, and were to prefent them to the public in a modern drefs, he would produce a work of confiderable utility. It is really aftonifhing how many ufeful inventions now lie dormant amid the old Greek Scholia,

How many a flower is born to blufh unfeen, And wafte its fweetnefs on the defert air.

Permit me to conclude this letter with an example of a contrivance much in ufe among the Spartans. It was called the Scytale, and may be thus defcribed from
from Plutarch and Suidas. When the magiftrates of Sparta wifhed to convey any intelligence of importance to the General of their armies, they ufed to wrap a long narrow flip of parchment round a ftaff in fo regular a manner as to leave no interftice. Upon this they wrote their orders. The parchment was then unwound, and fent to the General, who, having another ftaff of exactly the fame dimenfions, applied it in the fame manner, and thus thofe characters which were before without fhape or connection became perfectly legible.

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\begin{aligned}
& \text { V. V. } \\
& \text { THIO. NORTHMORE. }
\end{aligned}
$$

GLEFE, Jian. 25, 1796.

## DESCRIPTION

OF A NOCTURNAL OR DIURNAL
TELEGRAPH.

THAT the French Telegraph is an invention juftly intitled to the praife of ingenuity and fimplicity, is certain; yet it appears to me to labour under a defect that takes much from its utility; I mean that it is not calculated to convey intelligence by night. It was this defect that firft induced me to turn my thoughts to the fubject; whether fuccefsfully or no, the reader may determine.

But before I proceed, I beg leave to obferve that the Telegraph, new as it appears, is new only in name; the invention is of very ancient date; for Polybius, who flourifhed near 2000 years ago, gives an accurate

## $\left[\begin{array}{ll}8\end{array}\right]$

curate account of a nocturnal one, which he himfelf had improved, and of which the following is an abridgement.

He begins by obferving, that as opportunity is of great confequence in all human affairs, fo is it efpecially in war, and of all the various inventions that have contributed to its attainment, none has been of fuch fervice as that of fignals by fire. But this contrivance is in fome meafure rendered ufelefs by reafon of its too great fimplicity; every circumftance muft be agreed upon before-hand; if therefore, out of the infinite variety of human concerns, any event flould happen unprovided for, fuch a method would be of no avail. To remedy this defect, continues Polybius, let the whole alphabet be diftributed into five columns, each of which, except the laft, will contain five letters. Thefe columns are then to be fixed upon five tablets of wood; and the parties who are to give and receive the intelligence are to agree upon the fignal of being prepared, which we will
fuppofe

## [ 9 ]

fuppofe to be the elevation of two torches. This fignal being anfwered; the torches are then lowered. The perfon whogives the intelligence is now to elevate fuch a number of torches on the left hand, as fhall correfpond to the number of the column or tablet in which the firft letter of the intel-; ligence is to be found ; for inftance, if it. be in the firft column, he will lift up only one torch; if in the fecond, two ; and fo on. The fame thing is then to be done on the rigbt hand, to fignify the particular letter of the column.

To illuftrate the above by a familiar cxample, fuppofe the intelligence conveyed to be, that the French fleet of thirty fail of the line were off Maker: the fentence muft firlt be abridged thus, French, thirly Sail, of Maker. The letter F being the firft in the fecond tablet, two torches muft be elevated on the left, and one on the right. The letter R being the third in the fourth tablet, there muft be four torches raifed on the left, and three on the right,

## [ 10 ]

and fo on. In order to diftinguifh the right from the left, a geometrical inftrument containing two tubes was made ufe of.*

It is not my intention to enter further into detail ; fuffice it to fay, that from this account of Polybius I received a hint, which furnifhed the ground-work of what I am now going to prefent to the reader.

* See Polyb. Hift. lib. x. p. 261-6. Edit. Erneft. The Englifh reader may confult Rollin's. Ancient Hiftory, book xvii. fect. vi.



## A Nocturnal or Diurnal TELEGRAPH.



For a Nocturnal Telegraph, let there be four large concave reflecting lamps, each containing the greatef quantity of light poffible; let them be placed on the top of an obfervatory, parallel to the horizon, and lying on the fame plane. Let each of thefe lamps be capable, by means of a winch, either of elevation or depreffion to a certain degree. By elevating or depreffing one or two of them a great variety of arrangements will be produced, as the annexed fcheme will explain, taking care that each lamp be reftored to its place after every arrangement. In the firft and laft obfervatory there need only be a fet of fingle lamps, but in the others each muft be double, fo as to face both the preceding and fubfequent obfervatory; and every obfervatory fhould be furnifhed with two telefcopes. The proper diameter of the lamps, and their diftance from each other, cannot be afcertained but by experience, and will vary according to the diffance of the obfervatory.

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\left[\begin{array}{lll}
12
\end{array}\right]
$$

I have fixed on four lamps, as being the number that appears beft to unite fimplicity and perfpicuity.

- To convert this machine into a Diurnal Telegraph, nothing more is neceffary than to infert, in the place of the lamps, gilt balls, or any other confpicuous bodies.

I cannot conclude without agrain fubmitting to the confideration of government and the lottery-offices, whether it would not be defirable to eltablifh a communication of this kind between London and Dublin, viâ Donaghadee and Port Patrick,


Propofal

## $\left[\begin{array}{ll}\text { [ } 3 \text { ] }\end{array}\right.$

Propofal for an Univerfai CBaracter.

## PARTI.

V HEN I firft committed to paper my thoughts upon the following fubject, I had not even the moft diftant fufpicion that any thing fimilar to them had ever before appeared in public. I afterwards found, and, in my fecond letter to the Repertory of Arts and Manufactures dated June 1795,- mentioned an extract from the Journal litteraire, anno 1720, which feemed to bear fome refemblance to what I had propofed; but of this the reader fhall judge prefently. I will previoufly beg permiffion to ftate the progrefs of my own ideas upon the fubject.

I originally called this invention a Pangraph, or a mode of writing by which the various nations of the earth may communicate their Sentiments to each otber. This appellation

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\left[\begin{array}{lll}
14 & ]
\end{array}\right.
$$

lation appeared to me the moft fuitable, being at that time little aware of the facility with which the character might be fpoken, and confequently become, as far as regards the common concerns of life, an univerfal language. The want of fuch a medium has long been a fubject of lamentation among men of letters; hence the various plans that have been propofed by Bifhop Wilkins, Leibnitz, and others, which, if I may be allowed an opinion, have failed of fuccefs chicfly by reafon of their being too complex and difficult of attainment. That mine will be more fuccefsful I do not promife myfelf; I can only fay that I have fludied fimplicity.

The original thought that occurred to me, and which is the ground-work of the whole fuper-ftructure, is the following; " That if the fane numerical figure be made " to reprefent the fame word in all lan" guages, an univerfal medium is imme" diately obtained." This I mentioned to a few friends, who agrced with mee in the
the practicability of it, and faw only one objection, viz. that which originated from the diverfity of idioms. But this objection. furely cannot be thought of much weight, when we confider that every fchool-boy has daily to encounter it in conftruing his Terence. If a foreigner write to me, he of courfe will ftudy plainnefs of language, and I mult be dull indeed, let his idiom vary ever fo much from my own, if I cannot make out common fenfe when I have every word before my eyes. Such was my original thought, but it was foon perceived capable of improvement; for inftead of ufing a figure for every word, it will be neceffary to apply one only to every ufeful word; and we all know how few words are abfolutely neceffary to the communication of our thoughts. Thefe too may be much abbreviated by the adoption of certain uniform fixed figns, to exprefs the various cafes, numbers, genders, degrees of comparifon, of nouns; tenfes, and moods of verbs, \&c. Words of negation, diminution,

$$
\left[\begin{array}{ll}
16 & ]
\end{array}\right.
$$

nution, excels, \&cc. may. alfo be expreffed by prefixed figns. A few examples will more fully explain my meaning.

- Suppofe a numerical dictionary, adapted to a variety of languages, already in fe. Let what follows be an extract from it.

The number 8 reprefents the word $I$

$$
\begin{aligned}
& 10 \text { - day } \\
& 13 \text { - - am, art, is, are, ifc. the } \\
& \text { present tense in- } \\
& \text { dilative mood of } \\
& \text { the verb, to be } \\
& 16 \text { - - place } \\
& 17 \text { - - corrupt } \\
& 19 \text { - - this, that } \\
& 23 \text { - - wto, which } \\
& 26 \text { - - make } \\
& 27 \text { - - wisdom } \\
& 29 \text { - - nothing } \\
& 30 \text { - - natural } \\
& 32 \text { - - beautiful } \\
& 35 \text { - - lave } \\
& 37 \text { - minn } \\
& 39 \text { - near }
\end{aligned}
$$

The

## [ 17 ] ]

The number 40 reprefents the word virtue.

$$
\begin{aligned}
& 45-\text { liberty } \\
& 48-\text { - take away } \\
& 50-\text { - worth, value } \\
& 53-\text { - bis, bers, their } \\
& 59-\text { - amiable } \\
& 61-\text { half } \\
& 70-\text { - than } \\
& 71-\text { - without } \\
& 75-\text { brute. }
\end{aligned}
$$

We will now fuppofe that in the proface to the above dictionary the nature and power of the prefixed figns are explained with clearnefs and brevity. Take an example.

The number 48 reprefents the indicative mood prefent tenfe of the verb - - take array
. 48 perfect tenfe took aze:ay
$\left.\begin{array}{l}\text { :48 perfect par- } \\ \text { ticiple }-\end{array}\right\}$ taken ara al
48: prefent parti- $\begin{aligned} & \text { siple }-\quad \text { taking away }\end{aligned}$
48. future - - sill take areay

C

$$
\begin{aligned}
& \text { [ } 18 \text { ] } \\
& 48 \text { potential mood } \\
& 37 \text { nominative } \& x \\
& \text { accufative cafe }\} \text { a man } \\
& \text { of the noun - } \\
& 37 \text { genitive - - of a man } \\
& 37 \text { dative - - to a man } \\
& 37 \text { feminine - - a woinan } \\
& +37 \text { plural - - men } \\
& 59 \text { pofitive - - amiable } \\
& 59 \text { comparative moreainiable } \\
& 59 \text { fuperlative - mof amiable } \\
& \text { - } 59 \text { negation - - unamiable. }
\end{aligned}
$$

How many figns may be neceffary I will not take upon me to determine, it being my opinion, expreffed in my fecond letter to the Repertory, that the beft method of bringing any matter of this fort to perfection, is to lay it before a company of literary men. I fhall now prefent the reader with a few fentences written in this character, and explained in the above extract.

## ［ 19］

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29,13,3 \dot{2}, 70,27,29,59,70,40 .
$$

There would be no difficulty in com－ prehending the above fpecimen，though it were written in the language of the Chinese．
＂Nothing is more beautiful than 战気fom， ＂thotbing more amiable than virtue．＂

$$
7 \mathrm{I},+3 \overline{7},+8, .13,+75 . \quad \text { Otway. }
$$

＂Without women we gould be brutes．＂
30，16， $40,13,39,45$. MonteSquieu． ＂The natural place of Virtue is near to Liberty．＂ 10， $23,26,+37,+35,48,65,53,50$ ． Homer．

This fentence is left for the reader to find out．It may be worth while to observe that thole languages which do not exprefs the pronoun before the verb，as the Greek and Roman，may apply it，in a faller character，dimply to denominate the perfon： thus，inftead of $+8, .13$ ，in the fecond in－ farce，we gould be；it might be written ＋8．13，which will fignify that the verb is

$$
\mathrm{C}_{2} \quad \text { in }
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## [ 20 ]

in the firft perfon, and will ftill have the fame meaning.
The fpecimen here prefented to you, Reader, is merely a rourgh fketch of my defign, and I purpofely leave it imperfect that others may have an opportunity of fuggefting their improvements. I thall therefore conclude this firft part of the Univerfal Character by obferving that, in my opinion, five or fix thoufand felect words, properly arranged in a fmall numerical dictionary, would anfwer all the ends propofed. I am led to adopt this opinion, becaufe not only fynonimous words might be omitted, but alfo derivative adverbs, \&xc. which might be expreffed by means of the prefixed figns.


> Propofal

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[2 I]
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## Propofal for an Univerfal Claraitcr.

## PARTII.

INOW come to that part of the Univerfal Character which relates to its being spoken, and the facility with which this may apparently be performed is extraordinary.

Firft then, the ten numerals fhould be accurately diftinguifhed by ten fimple names: thefe I would recommend to be monofyllables, eafy of pronunciation in all languages, and, if poffible, they fhould be fo contrived as to run without difficulty into one another. For the prefent I will call them by the common Englifh terms, though I have no doubt that imaginary appellations ought to be preferred.

Secondly, I would pronounce each numeral by its component parts, after the manner of accomptants. Ex. gr. Let the number 5943 reprefent the word Horfe; I would not fay, five thoufand nine hundred and

## $\left[\begin{array}{ll}22\end{array}\right]$

forty three, but more fimply, thus, five, mine, four, three, and fo through a whole fentence, making the proper ftop between each of the words.

Thirdly, in the fame manner to each of the prefixed figns a diftinct appellation muft be appropriated, to be pronounced iminediately after the numeral to which it is an appendage. For inftance; let the monofyllable plu be the appellation or fign of the plural number; five, nine, four, lbree, plu, would become borfes. But this method may be much abridged in the following manner. For fuppofing the figns to amount in number to forty; then inftead of appropriating a diftinct appellation to every fign, I would fubftitute for them the firft forty numerals, and fay, as in Algebra, that a term is in the power of fuch a number, which may be expreffed by the word under, or fome other more fimple denomination. Ex. gr. Let 5943 reprefent the word borife, and let 4 be the fign of the plural number;

## [ 23 ]

number; I would write the word thus, $\frac{4}{59+3}$, and pronounce it five, nine, four, tbree, in the power of, or under, four. By thele means eleven or twelve founds would be all that were required, and time and ufe would much abbreviate the pronunciation.

Thus, Reader, have I briefly laid before you the progrefs of my ideas upon this interefting fubject, upon which I have thought it unneceffary to enlarge for reafons already ftated; but I cannot in juftice conclude without obferving that, fome little time after the publication of my firt letter in the Repertory of Arts and Manufactures, on reading the Encyclopædia Britannica, article Cbaracter, vol. iv. p. 337 , I met with an extract from the Journal Litteraire, anno 1720, the author of which had propofed the Arabic, or numeral figures, for Univerfal Characters. "The combination of thefe " nine (he obferves) are fufficient to ex"prefs diftinctly an incredible quantity of " numbers, much more than we thall need " terms to fignify our actions, goods, evils, "duties,

## [ 24 ]

"duties, paffions, \&zc." From which and what follows, it appears to me (who have no opportunity of feeing the original) that the author meant, in the fame extenfive fenfe as Wilkins and Leibnitz, that his characters fhould, in an unlimited degree, and without any intermediate affiftance, reprefent things; and confequently the difficulty of attaining them, notwithftanding the univerfality of the character itfelf, is not much, if at all, diminifhed. With refpect to the pronunciation of his character, he feems totally to lay it afide.

I flall now conclude with the fame obfervation that I have made elfewhere, that I have thought it right to mention this circumftance, as, if my readers fhall fo determine, I am very willing to forego the claim of originality, provided I can contribute in the lealt either to their amufement, or to their advantage.

## [ 25 ]

Propofal for facilitating the Progrefs of Science, exemplified in the Ofteological Part of Anatomy.

A modern Author in his Eutopian Syftem of Government eftablifhed at Makar, has enacted among other laws, "that " all fciences be freed from abftrufe terms, "which are now the ciog to education." Upon this he makes the following obfervation in a note fubjoined. "What is the "reafon that fciences are fo difficult of "attainment? One of the reafons is, be"caufe they are inveloped in a mafs of un"intelligible names. If in lieu of the

## [ 26 ]

"Greek, Latin, and fanciful appellations " with which Aftronomy, Anatomy, Bo"tany, Chemifty, \&cc. are at prefent fur" rounded, (and which conftitute, as it "were, a monopoly of thofe fciences to "the Grecian and Roman) they were illuf"trated by plain Englifh terms that con"vey meaning, to how much greater per" fection would thofe fciences fpeedily ar"rive? And again, p. 132-3, "The " Greeks and Romans, from whom moft " of our knowledge is derived, very natu"rally and wifely gave appellations in theit "own tongue to their various improve" ments and difcoveries. The greateft "part of thefe appellations European na"tions religioufly adhere to, fo that the " modern ftudent is under the neceffity of "cultivating the Greek and Roman lan"guages previous to his acquifition of "this or that fcience. Nor is this all. Se"veral of the original appellations being "proved by fubfequent difcoveries to be "abfurd and fanciful, the fudent has to os wade

## [ 27 ]

"wade through additional difficulties to " underftand whence they originated."The author has not given the public any fpecimen of what he alludes to but has left that for his friend to do. I would not however have the reader haftily fuppofe by what I am now writing, that I am an enemy to all terms of art. No! I readily fubferibe to the obfervation of Judge Blackfone,* that "terms of art there will "unavoidably be in all fciences." All I infift upon is, a fimplification of thofe terms, and that, as we have fo copious a language, and one fo "well adapted to "compound expreffions," there is no occafion (at leaft fo frequently) to recar to foreign tongues.

The fpecimen which I have chofen is taken from that part of Anatomy which relates to the bones of the human frame, and I have arranged the new and old Vocabulary oppofite each other that the $\mathrm{D}_{2}$ Reader

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## [ 28 ]

## Reader may be better able to judge whether my fcheme is likely to anfwer the end propofed.*

* Perhaps it will here be objected to me by fome of the cenforious witlings of the age, "that I am medling " with things of which my knowledge cannot poffibly be " any other than fuperficial. What, for inftance, have " the duties of a Country Juftice to do with the ftudy " of Anatomy ?" Very little, alas! I confefs. But perhaps it will gratify the curiofity of thefe men, at leaft it will blunt the force of their accufation, to be informed that, independent of my having received much pleafure from the fludy of Anatomy, which I once purfued at Cambridge under the Anatomical Profeflor, Dr. Harwool; I have alfo taken the precaution of fubmitting what I had to fay upon the fubject to the judgement of a Friend and an Anatomift, the excellence of whofe mind, and the virtues of whofe heart, I thall hope at all times to revere. His modefty alone forbids me mentioning his name. But even without this precaution, much as I have been advantaged by it, I fhould not have been daunted, it being a principle with me, that a good educaion confifts in an accurate knowledge of one thing, and an acquaintance with many things. Senfible men too would perhaps have pardoned my errors, fatisfied that I had endeavoured well; and men without fenfe are not now to learn that their cenfure is applanfe.

New Vocabulary. Old Vocabulary.

Forehead bone
Os frontis
Side head bones, rigbr and left, and $\int_{0}$ in all $\}$ other cafes of trwo fimi-

Ofa parietalia lar corresponding bones
Hind head bone
Temple bones
Central head bone
Upper olfactory nerve bone, or
Upper internal nafal bone
Cheek benes
Upper jaw bones
External nafal bones
Nafal divifion bone
Eye corner bone
Palate bones
Lower olfactory nerve bones, or
Lower internal nafal bones
Lower jaw bone
Teeth
Front teeth
Dog teeth, or pointed teeth, commonly called eye teeth

Os accipitis
Ofatemboruis
Os.jpenoïdes

Os cibmoildes
O.fa malarum

O Ia maxilla Juperioris
Ofanafa
Vomer
Os unguis
Ofa palati

Ofa fiongiofa inferiora

Os maxillas inferioris
Dentes
Incijares;
Canini;

## [ 30 ]

| New Vocabulary. Old Vocabulary. |  |
| :--- | :--- |
| Grinders |  |
|  | Molares, |
|  | Bicuspides, |
|  | Tricuspides. |

$\left.\begin{array}{l}\text { Wife teeth, or late grin- } \\ \text { dens }\end{array}\right\}$ Dentes fapientice
Tongue bone Os byoüdes
Appendages, right and $\}$ Cornu parva feu appenleft
dices

Ear bones
$\left.\begin{array}{l}\text { Outward, or long drum } \\ \text { bone }\end{array}\right\}$ Malleus
Middle drum bone Incus
Little drum bone Os orbiculate
$\left.\begin{array}{c}\text { Inner drum, or firrup } \\ \text { bone }\end{array}\right\}$ Stapes
Spine bones Spina
$1 \mathrm{ft}, 2 \mathrm{~d}, 3 \mathrm{~d}, \& \mathrm{c}$. to $24^{\text {th }}$ Vertebrae
7 cervicales
12 dor
5 lumborum
$\left.\begin{array}{c}\text { Great, or lower f pine } \\ \text { bone }\end{array}\right\}$ Os sacrum
$\left.\begin{array}{l}\text { Little, or loweft fine } \\ \text { bones }\end{array}\right\}$ Os coccygis
Breaft bones Sternum
Upper
Middle
Extreme Cartilago enfiformis
Ribs
If t, $2 \mathrm{~d}, 3 \mathrm{~d}, \& \mathrm{kc}$.

Cote
Tun verse, tum false

## $\left[\begin{array}{ll}31\end{array}\right]$

## New Vocabulary. Old Vocabulary.

| Hip bones | O Ja innominata |
| :---: | :---: |
| Superior | Ofa ilium |
| Inferior | Ofa ifchii |
| Anterior | Offapubis |
| Shoulder blade | Scapula |
| Collar bone | Clavicula |
| Upper arm bone | Os bumeri |
| Long lower-arm bone | Os ulnce |
| Short lower-arm bone | Radius |
| Wrift bones | Ofa carpi |
| Firft or arm row |  |
| 1 ft | Os caploildes |
| 2 d | Os lunare |
| $3^{\text {d }}$ | Os cuneiforme |
| $4^{\text {th }}$ | Os pifforme |
| Second, or hand row |  |
| 1 ft | Trapezium |
| 2 d | Os trapezoï̀́es |
| 3 d | Os magnum |
| $4^{\text {th }}$ | Os uncijorme |
| Hand bones | Ofa Metacarpii |
| 1 ft | 1m. Seur indicis |
| 2 d | 2 m . |
| 3 d | $3^{n 7}$ |
| $4^{\text {th }}$ | $4 \%$. |

Finger

## $\left[\begin{array}{ll}32\end{array}\right]$

## New Vocabulary. Old Vocabulary.

Finger bones
Firft of 1 ft , or fore-finger Os prime phalangis indicis
Middle of ditto
Extreme of ditto Secundo phalangis

So of the long, or middle finger Tertic plsalangis

Digiti medii
The third, or ring finger Digiti annularis
The little finger, called by a French author auriculaire

Digiti minimi
Thumb bones

Firft
Middle
Extreme
Thigh bone
Knee pan
Great leg bone
Little leg bone
Upper foot bones
Firft
Middle
Anterior
ift, or internal
$2 d$
3d
$4^{\text {th }}$, or external
Heel bone

Os prima pbal: pollicis
Secunde
Tertice
Os femoris
Patella
Os tibice
Fibula
Tarjus, excepto offe calcis
Aftragalus
Os naviculare

Os cuneiforme internum
Os cuneiforme medium
Os cuneiforme externum
Os cuboüdes
Os calcis

New Vocabulary. Old Vocabulary.

| wer foot bones |  |
| :---: | :---: |
|  | 1 m . |
| 2 d |  |
| $3{ }^{\text {d }}$ |  |
| $4{ }^{\text {th }}$ |  |
| $5{ }^{\text {th }}$ |  |
| Great, or firlt toe bones | Ofa pollicis pedis |
|  | Os prime pbalangis. |
| 2 d | Os Jecunda phalarg |
| Toe bones |  |
| Ift of 2 d toe | Osprime phalangis fecundi digiti pedis |
| Middle of ditto | Os Jecunda phalangis |
| Extreme of ditto | Os tertica phalangis |
| And fo of the $3 \mathrm{~d}, 4$ th, and |  |
| Supernumerary bones, adding the name of $\}$ the adjacent bone. | Offatriquetra <br> Sefamö̈dea <br> Et ejufmodi. |

How whimfical were the appellations anciently given to the bones of the human frame, and now preferved with religious reverence by pofterity, the Englifh reader may judge from a few fpecimens. One of the foffre of the os Spenoides, or wedge-

## [ 34 ]

like bone, (and which I have denominated from its fituation, central bead bone) has been called Sella Turcica, becaufe it was fuppofed to refemble a Turki/h Jaddle; but of the propriety of this appellation I fhould conceive that few ftudents in anatomy are able to judge. The Offa unguis are fo called, on account of a fuppofed fimilitude to a finger nail; but the other name given to them, viz. Lachrymalia, is certainly preferable. OS Hyoïdes, from its being thought like the Greek letter $v$ 。 OS Coccygis, the bone of the cuckow, becaufe it was imagined to refemble the beak of that bird. Clavicula is faid to be fo called from its fimilitude to the key in ufe among the Ancients. Radius, the fpoke of a wheel. Scaphoïdes, boat-like. Pififorme, pea-like. OS tibix, from its refemblance to the ancient pipe, \&xc. \&cc.

Where names are given fo unlike the things named, it is no wonder that the progrefs of fcience is flow. Such whimfical denominations ferve only, as Blackftone

## [ 35 ]

ftone fays, " to breed a confufion of ideas, " and a kind of diftraction in the memory."

The advantage then expected to be derived from the foregoing fcheme is briefly this; that fudents, particularly the junior clafs, finding the accefs to fcience more plain and eafy, will be encouraged to proceed; confequently Science, having a greater number of followers, will be more likely to be brought nearer to perfection. The numbers of young men who forfake the paths of knowledge, intimidated by the difficulties in their road, are greater than generally imagined. Cambridge, Oxford, the Temple, and Lincoln's Inn, annually bear ample teftimony to what I have advanced.

Thus, Reader, have I prefented to you my favourite fcheme for facilitating the progrefs of knowledge, not indeed according to my wifhes, but according to my abilities, and will now, for a chort time at leaft,

## $\left[\begin{array}{lll}36 & 1\end{array}\right]$

leaft, take my leave of you, with the requeft of the Moralift;
—— Si quid noriffi rectivs ifis,
Citiddidus imperti.

$$
F I N \mathrm{I} .
$$

- 


of, 0


[^0]:    * Commentaries. Book iii. ch, 17 .

