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*** START OF THE PROJECT GUTENBERG EBOOK THE TALKING DEAF MAN ***

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THE TALKING DEAF MAN:

or,

A Method Proposed, Whereby He Who is Born Deaf, May Learn to Speak.

By the Studious Invention and Industry of *John Conrade Amman*, an *Helvetian* of *Shashuis*, Dr. of Physick.

Imprinted at *Amsterdam*, by *Henry Westein*, 1692. And now done out of Latin into English, by *D.F.M.D.* 1693.

London, Printed for Tho. Hawkins, in George-yard, Lumbard street, 1694.

Price bound One Shilling.

To his most Approved Good Friend Mr. PETER KOLARD, the Author, with all Submission, Dedicateth this his Treatise of the Talking Deaf Man.

My much honoured Friend,

This little endeavour, how small soever it be, is upon many Accounts due to you; For besides that, the Truth of the matter here exposed, is to no one, (except my Self) more apparent, you did heap on me so many Favours, whilst I abode in your House, upon account of teaching your Daughter, and rendred me to be so much Yours, as no less could be sufficient, than to erect a publick, and as much as in me lay, an eternal Monument of Gratitude to you. How great the Incredulity of this Age is, no Man almost knows better than your self; there have been, and still are, such as boldly deny, that it is possible to

bring the *Deaf* to speak; others, though they should be admitted to be Eye-Witnesses, yet would not stick to doubt still of the matter: Wherefore, what-ever it was that I performed to your Daughter, and to some others, and by what Artifice I did it, I now ingenuously expose to the Eyes of all the World. I heartily wish that they may so make use of this my labour, as that for the future, no more *Dumb* Persons may be found.

In the number of these doubting Persons, you have confessed to me, that you your self had formerly been, until you had heard a certain Maiden, who before had been *Dumb*, talking with me at *Amsterdam*; perhaps I should have been so my self, if, when I was ignorant in the thing, I had received narratively only, that some such thing was performed by another; wherefore I resolved rather to convince the Incredulity of Men (which now is accounted Prudence amongst most Men) of an Error, than to reprove them for their Rashness.

It is now three Years since I first thought to make this my Method publick; but had I then done it, I should now have repented it, because in this Interval I have much more polished it; and rendered it more easie by far; and as to what belongs to the practise thereof, more certain, yea, and all to that degree, as I dare confidently assert, that henceforth there shall be no *Deaf* Person, (provided he be of a sound Mind, and be not Tongue-tied, nor of an immature Age) who by my Instruction shall not in the space of two Months speak readily enough. Perhaps also I shall hereafter repent, that I have published this small Treatise, as yet too immature; yet I had rather confess an Error, if I shall any where commit one, or in any future Edition augment it, than wholly to pass it over in Silence; for if I should be snatcht away by a hasty Death, (even as a tender state of Health doth threaten me) I should not know how to render to God an Account of the Talent committed to me, as he may require it of me.

Nothing therefore remained, most Worthy Sir, than that I should beg your Pardon, that I have made bold thus to interrupt you in the midst of Affairs, which almost swallow you wholly up; but I believe you will the more readily give it me, because this little Script may make my Absence less troublesome to you, because, according to the precepts here given, you yourself will be able to take care that your Daughter shall not only not forget all what she already knows, but more and more accomplish them. However, I humbly beseech you, that him whom you have begun to love, yea, though he be removed far from you, that you will persist still therein, and to take upon your self as need shall require it, the Patronage of the Truth it self. Farewel, and be well.

J. Conrade Amman.

Dated from my Study, Aug. 10th, 1692.

To his Learned friends Richard Waller, and Alexander Pittfield, Esquires, of the Royal Society.

Gentlemen,

The holding of a Candle to the Sun is not more absurd, than thus to present you with an English Version of a Latin Treatise. All who know you, know you to be Masters of not only most of the European, but also of the Learned Languages. But my excuse is, that what I have done for the sake of English Readers, I expose under your learned Names; the Subject-matter of which may be useful, and therefore acceptable to your selves and others. However, I am willing to discover my Ambitious aim herein, which is to let the World know who are my Friends, and what Names may give Honour to mine. I know, that several very considerable Members of that great Society, to which you so nearly relate, have already, both in Theory and Practise, acquainted the World with very remarkable things of this nature; and whether what is here published, will in the least, either elucidate or add to those already taught, and done by those very knowing persons, I neither dare nor will determine; but if neither one nor the other be here found, yet it is sometimes grateful to us, to see how good and great wits do jump, and in such Circumstances as these no Man can account Store to be a Soare. I have only this to further mention, that the Author chose the High-German Tongue to become his exemplar, rather than any other Modern or Antique; it therefore is necessary, that he who would put his Rules in practice in any other Language, must observe a due Analogy in mutatis mutandis. Thus (my Friends) I have exposed both you and my self, if any blame happen, let that be all mine, who (without your Knowledge and Concession) did this Indignity to you, and to aggravate it, thus publickly to stile my self,

Gentlemen,

Your Cordial Friend and Servant,

Dan. Foot.

TO THE READER.

Candid Reader,

In these few Pages, I expose to thee openly and ingenuously, by what means I can learn the Deaf, (and because they were born so) the Dumb to speak articulately, and easily to understand others also when they are speaking, so as they may be able both to read, and to understand a Book, or Letter, and to discover their own Minds, either by Speach or Writing.

How important a Benefit is this? How advantageous is the not hearing supplied by this Art? If Envy, or the detestable greedy Desire of Gain_could have prevailed with me, I had retained this Art, as lockt up in my own Breast. But alass! How miserable is the condition of the Deaf? How lame and defective is that Speach, which is performed by Signs and Gestures? How little are they capable to receive of those things which concern their eternal Salvation? Who doth not commiserate this sort of Persons? Who can refuse to help them by all means which are possible? For my part, I, by the help of God's Grace, will not only help them, but will make publick and vulgar what is best to be done therein, yea, and have done so already, that they can understand others speaking, even with the softest Voice, or rather whispering.

This Doctrin will seem new and incredible to most Men, yet is not plainly altogether unheard of; for, as I heard, there have been some, who engaged themselves in this cure; but what they effected therein, I must acknowledge is unknown to me; yea, I Religiously attest, that before I did excogitate this Matter, I met not with the least foot-step thereof in any Author. Notwithstanding, some there be, who reject at first sight this Doctrin as fabulous; others, and those perhaps the same also; who when I shall have discovered to them the manner thereof, will cry, that they could do the same thing: I, for my part; am not concerned at either of them, well knowing, that those who are just in their _Estimation of things, will judge otherwise.

When thou, by reading shalt arrive thus far (good_ Reader) stop a little (I pray thee) and use the liberty granted to every one, and attentively revolve in thy Mind, what thou thy self would'st do, if such a case as this was committed to thy care. If so be thou shaltst find out the right way, give God thanks, and let it suffice, that I have admonished thee; if not, go on to read what follows, where thou wilt find it, with very little trouble. This very way is that, by which I taught Ehster Kolard, (a young Virgin of great Hopes, the only Daughter of Mr Peter Kolard, who was born Deaf) not only to read, but also to speak readily, yea, and to hold Discourse with others and in a short time she profited so much, as to remember a many Questions and Answers in the Catechism, yea, and as far as her young Years were capable, she understood the Sense of them also: She rejoyced greatly when I told her, that I was willing to make this Method, by which she learned to speak, common to all. Friendly_ Reader, use and accept well these things; and if thou knowest any things better, Candidly impart them, and make not thy self Ungrateful. Farewell.

An Advertisement to the English Reader.

About 26 Years since, the Honourable, Learned, and Pious F.M. Baron of *Helmont* caused to be published in Latin a small Treatise; wholly and fully to the same purpose, with what is here published: Which said Treatise, entituled, *The Alphabet of Nature*, is now in Hand to be Translated, and Publish'd in *English*; of which it was thought fit here to give thee this Notice.

Thou art also (kind *Reader*) to be advertised, that there is very lately Translated into the *English* a very learned Tract, entituled, *The Divine Being, and its Attributes*; demonstrated from the Holy Scriptures, and Original Nature of things, according to the Principles of the aforesaid F.M. Baron of *Helmont*. Written in *Low-Dutch*, by *Paulus Buchius*, Dr. of Physick, &c. and Licensed according to Order, and are to be sold by *T. Howkins*, Bookseller, in *George-yard*, *Lumbard-Street*.

THE TALKING DEAF MAN.

CHAP. I.

An Inquiry into the Nature of a Voice, and in what respect it differs from the Breath.

Let no Man presume, that he shall ever attain to this noble Art, if he remain Ignorant in what it is that the nature of the Letters, as well in general, as special, doth consist; for it was this very thing which gave occasion to the composing of this small Treatise: Wherefore, before I treat of the manner of instructing *Deaf* Persons, I shall bring into examination, First, the material part of the *Letters*, viz. *Voice* and *Breath*; Secondly, the *Letters themselves*, and their Differences: Thirdly, and Lastly, I will teach the *Practise* of the Art.

I have oftentimes heard from some Persons, that it was little beneath a Miracle, that God should give Men, to express the Thoughts of the Mind, rather by Motions, which are effected by the Lips, the Tongue, the Teeth, &c. than otherwise, and that so universally, that there is no Nation so Barbarous, no not excepting the Hottentots, which cannot speak in a Language. But let (I pray) these Men consider, what it is that Men rightly Instituted would have, whilst they mutually talk one with another; for they desire to open the most inward Recesses of the Heart, yea, and to transfuse their own proper Life into others, which thing cannot be more commodiously done, than by Speaking; for there is nothing which floweth forth from us, which carrieth with it a more vivid Character of the Life, than our Voice doth; yea, in the Voice is the Breath of Life, part of which passeth into the Voice; for indeed the Voice is the Child of the Heart, which is the Seat of the Affections, and of Desire. Hence it is, that sometimes we are not able to keep back the impetuous Motions of the Affections; but out of the abundance of the Heart, the Mouth speaketh. Thus, when we desire something in our selves, and yet are afraid to express it, the Heart labours like a Woman with Child, and becomes Anxious; but if we can pour it forth into the Bosom of a Friend, there presently ariseth great Tranquility, and we say, that we have emptied our Hearts: Yea, so full is the *Voice* of the Life, which immediately flows from the Heart, that to talk long, extreamly wearieth us; but especially the Sick, who oftentimes can scarce utter three or four words, but they faint away. Therefore, to comprehend much in a few words, the Voice is an Emanation from that very Spirit, which God breathed inth Man's Nostrils, when he Created him a living Soul. Hence also, The Word of God, the Son of God, the Omnipotence of God, &c. are in Holy Scripture oftentimes homonymous, or of the like, and same import.

It is no wonder therefore, if *Voice* be natural to a Man, though he be *Deaf*, because *Deaf Men* Laugh, Cry out, Hollow, Weep, Sigh, and Waile, and express the chief Motions of the Mind, by the *Voice* which is to an Observant Hearer, various, yea, they hardly ever signifie any thing by Signs, but they mix with it some *Sound* or *Voice*. Thus the Exclamations of almost all Nations are alike; [a] is the *Sound* of him chiefly, who rejoyceth; [i] of him who is in Indignation, and Angry; [o] of one in Commiseration, or Exclamation; not to mention many such other-like.

Now I shall briefly declare, wherein the nature of the *Voice* consisteth, where it is formed, and how it is formed: I shall also discover, together therewith, wherein is the difference betwixt *Voice* and *Breath simply*, as what is in truth, of so much weight, that if it be unknown, some Deaf Persons cannot learn to speak, as shall be taught in the Third Chapter. Men ordinarily speak after two manner of ways, viz. either when they may be heard by any one, who is not too far distant from them, and that is properly call'd *Voice*; or else, when they speak privately in another's Ear, and then they pronounce a *Breath which is simple, but not Sonorous*. Deaf Men also do know a *Voice* to be different from a *Simple Breath*; for they can speak both ways, and I also have learned this Distinction partly from them.

The Humane *Voice* is Air, impregnated, and made Sonorous by the impressed Character of the Life, or is such, as whilst it is in breathing forth, doth smite upon the Organs of the *Voice*, so, as *they tremble thereupon*; for indeed, without this tremulous Motion, no *Voice* is made: Yea, not only the *Larynx*, or Wind-pipe, doth thereupon tremble, but the whole Skull also; yea, and sometimes *all the Bones of the whole Body*, which any one may easily find in himself, by his applying his Hand to his Throat, and laying it on the top of his Head. This trembling is very perceptible in most sounding Bodies, and is (if I mistake not) owing for the most part to the *Springiness* of the Air; which, did I not study to be brief, I could more fully explicate. Now the *Simple Breath* is Air, breathed forth by the opening of the Mouth or Nostrils, simply, and without any smiting on the parts, which rather exciteth a whispering than a sound. Hence is it, that Animals, whose Wind-pipe is cut beneath the Throat, do indeed render a *Breathing*, but no *Voice*; for the Tube of the Wind-pipe is too large, and too smooth, than that the Air can strike upon it any where; and being thus reflected on its self, it can also imprint a tremulous Motion on its neighbouring Bodies: This the Physicians Pupils do know; who being about to dissect live Dogs, they cut their Throats, that they may not be troubled with their barking: For *Voice* differs as much from

a *Simple Breath*, as doth that hoarse Sound, which we excite, by rubbing the tops of our Fingers hard upon some Glass or Table, which is quite differing from that same *soft whistling Sound*, which is heard when we lightly rub with the Hand the same Glass or Table.

The *Voice* therefore, as it is the *Voice*, is generated in the *Cartilages of the Wind-pipe*, then afterwards is formed into such or such *Letters*; but that it may become a lovely *Voice*, it's requisite, that those Cartilages be *smooth*, and *lined with no mucous Matter*, else the *Voice* will become Hoarse, and sometimes be utterly lost, viz. when they have lost their Springy power.

For *Pipes*; and other *Wind-Instruments* do most notably explain to us the nature of the *Voice*; for in them we see a certain *Voice* or *Sound* to be generated out of Simple Air, whilst it is as it were, rent in pieces, and forced into a tremulous Motion: Now, that in these Instruments there is a little Tongue; or which is instead of a Tongue, the same in a Man is the *Epiglott*, or Cover of the *Wind-pipe*, and the *Uvula*, or Pallate of the Mouth; but the rest of the *Cartilages* of the *Throat*, besides that, they contribute much to the making of the *Voice*, yet are they chiefly serviceable to it, in rendering it to be more flat, and more sharp, and that especially by the *Bone of the Tongue*, and the adjoyning Muscles: But I am unwilling to put from this Office the Muscles which are proper to the *Wind-pipe*; for they all unanimously conspire to make the *Cleft of the Throat* either wider, or narrower. But above all, here is that wonderful Faculty of modifying the *Voice*, according to Will and Pleasure; which, even as *Speech* also, is not natural to us, but a Habite, contracted by long Use or Custom. Hence it is, that the Unskilful are not only Ignorant how to Sing, but also cannot so much as imitate others who are Singing; so also such as are ignorant of any Language, do not only not understand others who are speaking that Language, but also do not know how presently to repeat that *Voice* which they received by their Ears.

Things principally requisite to the *Voice*, are, that the *Wind-pipe*, the former thereof be solid, dry, and of the nature of *Resounding* Bodies. By this *Hypothesis*, two of the most Eminent *Phænomena's of the Voice* are discovered; why the *Voice* should then at length become firm and ripe, when the Bones have attained unto their full Strength, and due Hardness, which cometh to pass much about the Years of ripe age, when the vital Heat, doth in a greater degree exert itself: The other Phænomenon is *Hoarsness* or an utter loss of the *Voice*, which is, when the *Cartilages*, or *Gristles of the Throat*, especially the *Epiglott*, or Coverlid of the *Wind-pipe*, is lined or besmeared all over with a slimy Viscosity, whereby they lose their *Elasticity*, or Springiness. Now these Symptoms of the *Voice* are also common to other *Wind-instruments*, when they become too much moistned by any vapourous wetting Air. The same reason also is to be assigned why the *Voice* doth at last quite cease in those who have made too long Harrangues, in speaking, and whose Jaws are quite dried with an immoderate Heat; for in both these cases the top of the *Wind-pipe* is covered over with a clammy *Tenacious Phlegm*.

There remains yet two other Symptoms of the *Voice*, which I have undertaken to explicate, viz. why the *Voice* sometimes leaps from one *Eighth* to another; and, as it is rightly said by the Vulgar Expression, that it is broken: and why, when we strive to make our *Voice* either too sharp, or too flat, it at last plainly faileth us. As to the first, let us consider when and how it cometh to pass; and first, it's what principally happeneth to *Orators*, when they endeavour to lift up their *Voice* too high, or strongly; but how this cometh to be, *Organ-pipes*, and the *Monochorde*, do teach us, *viz.* when some Impediment interposing, doth divide the *ordinary Sound* into two; if therefore those parts are equal, either of them is by one *Eighth* more sharp than the former Sound, neither are they distinguished from one another; but if they prove to be unequally divided, then two *distinct Sounds* are made at the same time, whereof one is flatter than the ether, and this is commonly called a *broken Voice*: But why our *Voice* should fail us, when we endeavour to make it more sharp, or more flat than it ought to be, the reason is, because we strive either so to contract the *Cleft* of the *Wind-pipe*, and to press the *Spout-like Cartilage*, by help of the *Bone of Tongue*, towards the *Epiglott*, that the going forth of the *Voice*, and of the *Breath*, may be precluded, or else, on the contrary, because that the said *Cleft*, through the drawing down of the *Cartilages*, is so much widened, that the departing out of the *Breath*, finds no hinderance.

But here I had almost forgot to compare the *more dry*, the *more moist*, the *more solid*, and the *more thin* Constitution of the *Larynx*, or *Wind-pipe*, which also make very much to the rendering the *Voice*, to be either sharp, or flat. That same humming Noise, which *many flying Insects* make, not so much by the Wings, (for when they are cut off, the humming still remains) as by a most swift and brisk Motion of certain Muscles, hid in the Cavity of their Breasts, seems to have somewhat of an affinity to the *Voice*; wherefore I desire the Learned to examine, whether those small *Muscles*, *which are proper to the Cartilages of the Wind-pipe*, cannot perform somewhat like to that.

Many more Particulars concerning the *Voice* might yet further be inquired into, such as, how it is, that every one may be known by his *Voice*? How that *Sound*, which in Singing is called *Quavering*, or *Trilling*, by a peculiarity, is excited, &c, But seeing that these things do not properly respect the nature of the *Voice*, I, for Brevities sake, do omit them.

Expounding the Nature of the Letters, and the manner how they are formed.

Hitherto we have treated concerning the *Voice* and *Breath*, and of the manner of the formation of both of them, in general; now let us see how the said *Voice* and *Breath* are, as a fit Matter for them, framed into such or such *Letters*; for the *Voice* and *Breath* are alone the material part of *Letters*, but the form of them is to be sought out from the various Configurations of those hollow Channels, thorough which they pass; *Letters* therefore, not as they be certain Characters, but as they are Pronounced or Spoken, are the *Voice* and *Breath*, diversly Figured by the Instruments ordained for the Speech.

But here we must be pre-admonished concerning the Letters; that there is a great Latitude almost amongst them all, and that one and the same Character is not pronounced by one and the same Configuration of the Mouth, yea, in one and the same Language; thus [a] and [e] sometimes are sounded open, and sometimes close; also [o] hath its own Latitude, so as many other Letters also may have; yea, as many as are the divers Modes, by which the Voice and Breath can be Figured, by the Organs of Speech; but the most easie, only, and the most Conspicuous are received by all Nations, whose number never almost exceedeth Twenty four, and have certain Characters annexed to them: But seeing that these Characters are not every where pronounced alike, yea, one and the same Letter sometimes is variously sounded by one and the same People, therefore I have made choice of the German Letters, which are of my Mother-Tongue, and the most Simple of all Letters, to be examined in this place: in as much as they are for the most part sounded every where alike, their Vowels are very Simple, and agreeable to the nature of the thing, the Diphthongs compounded of them, do retain the Nature of their compounding Vowels, because they are always heard pronounced in them, otherwise, than as it is in most other Languages, which they stile living ones; for sometimes they make their Diphthongs out of the most Simple Vowels, as are [au] [ou] [ai] amongst the French, and [oe] and [eu] amongst the Dutch, or else they have such improper Diphthongs, that scarce either of their compounding Vowels can be heard, such are [oi] of the French, and [uy] of the Dutch, not to mention more Examples, or else they are variously sounded according to their various Placings, so as if I were to teach some Deaf French-man, I would from the beginning teach him, not the French, but the German Letters, or else he would be plainly confounded. Nor is the state of the Consonants in better case for the Pronunciation of some of them, is so very different, that there are scarce two Nations, which pronounce the Character [g] after the same manner.

But in the *German* Alphabet, that which most disliketh me, is, their Order; which, in good truth, is none; because scarce two Letters of the same rank do follow mutually after one another, which would render the information of Deaf Persons to be so much the more difficult; wherefore I have reduced them into this following order, which seemed to me to be the most natural.

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a. e. i. j. y. o. u. ä. ö. ü. m. n. ng. l. r. h. g. ch. s. f. v. k. c. q. d. t. b. p. x. z.
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To those who observe well, it will from this order alone, appear, that I have divided this whole Alphabet into *Vowels*, *Semi-vowels*, and *Consonants*. The *Vowels* are a *Voice* or *Sound* modified by a various opening of the Mouth only, and are either *Simple*, or Uniform, as *a. e. i. j. y. o. u. w.* Or else they are mixt, which out of two, do so melt down into one, as that they are pronounced together, and are different from *Diphthongs*, in as much as their *Vowels* are successively pronounced: Now these mixt *Vowels*, are ä. ö. ü. which some Nations either have not at all, or else do write them evilly; but of the manner of Formation, more shall be said hereafter.

The *Semi-vowels* are a middle sort between the *Genuine Voice*, and a *Simple Breath*, and may at pleasure be brought forth in the manner as *Vowels* are; and they are either of the *Nose*, or *Nasall* such are *m. n. ng.* or else they be of the *Mouth*, or *Orall*, as *l. r. Consonants* are a *Simple Breath*, not sonorous, yet variously modified, and are of three kinds:

For they are either pronounced successively, and may be produced at pleasure, as g. ch. s. f. v.

Or are suddainly shot forth; which upon that score I call them explosive, as k. c. q. t. d. b. p.

Or else being *Compounded* out of two foregoing ones, their number is diverse in divers Nations; the *Germans* have two; *viz. x.* and *z.*

To this Division, in which I have had respect chiefly to the nature, and manner of pronouncing the *Letters*, may not impertinently be added, that those *Letters* are formed mostly in three *Regions of the Mouth, viz.* in the bottom, or *Throat*; in the middle, or in the *Palate* and *Teeth*; and lastly, in the utmost part thereof, or in the *Lips*: Hence it is, from every one of their Classes almost, are three sorts; one

Guttural, another Dental, and a third Labial; but of these, more hereafter.

I will here prevent the *Readers* who may object to me in the following Chapter, that this my Doctrin will be always lame, because all Deaf Persons, whom we would teach by the Tongue, Lips, &c. will never by their Sight attain unto these motions: But, besides that the Sight doth not give place to the Hearing, as to a quick sensibility, I affirm, that there is no need thereof, if once they have made but any Progress; for even we our selves do very often not hear in Pronunciation those Letters which I call *Consonants*, but we collect them from the *Vowels* and *Semi-vowels*, commixed together with them: No Man, for Example, shall so pronounce b. g. or d. as that he may be heard at a hundred Paces distant. And this seems to me to be the principal reason why we can most rarely pronounce or repeat at the first blush, any word spoken in a foreign Language.

But before I shall unfold the nature, and manner of forming the *Letters* in special, I judged that it was not here to be omitted, how that as all the *Letters*, yea also, and the *Vowels* them-selves, cannot by any means be pronounced, as they are a *Simple Breath*, and not sonorous; for when we, for Example, do whisper somewhat to one in his Ear, so the *Consonants* also, excepting those which I call *Explosive*, may be pronounced vocally, or with the *Voice* conjoyned; and there are Nations which pronounce thus, as the *French* do their *z*. and their *v*.

I shall now treat of the *Letters* especially, and will examine them so, as both the absolute Simplicity of the *German Letters* may be manifested; and other Nations, from their Mode of Formation, may learn, how they ought to pronounce them; upon this account also, I shall add how improperly some Nations do render the same Letters in their own Language. Now in this Explication I shall observe the same order as I did in the Division of them, where readily it will appear, that *Voice* and *Breath* are according to a triple Region of the Mouth, triply figured or formed spontaneously.

Therefore the Simple and Uniform *Vowels* are, a. e. i. j. y. o. u. w. and are formed after the following manner.

a. is a Gutteral Vowel, and the most Simple of all; the Key of the Alphabet, and therefore is by all Nations set first of all, excepting only (as far as I know) the Abyssines, by whom, as Ludolf testifieth, it is placed as the Thirteenth Letter. True indeed it may be pronounced by various Placings of the Tongue, yet the common, and most convenient is, that the Tongue should be in its posture of rest; and then being gently stretched forth in the Mouth, it may only lightly, or not at all touch upon the utmost Border of the lower Teeth; if therefore the lower Jaw be drawn downwards, and thereby the Mouth be opened, that the Voice formed in the Throat, strikes not neither against the Teeth, nor against the Lips, than a plain open [a] is heard, e. i. j. y. are Dental Vowels, or the Voice, which in coming forth, smites more or less against the Teeth; Hence it is that Infants, although they can say Pappa, bo, &c. yet can they not pronounce these Letters until they have Teeth, especially the Cutters, or fore-Teeth; and indeed [e] is formed, when the Voice, (the Lips being gently opened), strikes against the Teeth also moderately opened; now the posture of the Tongue is such, that it somewhat presses on each side upon the Dog-Teeth of the Inferior Jaw, for so the passage of the Voice is made narrower, and the [e] much more clear.

i. j. and y. are the same Vowel, pronounced one while more short, and another more long, nor doth it stand upon any Foundation, [i] sometimes doth become a Consonant, but then is pronounced only more swiftly, so as together with the following Vowel, it can make a Diphthong; but [i] is formed after the same manner almost, as [e] except that the Teeth are for the most part, more stricken, and the Tongue put close to the Teeth, the passage of the Voice is rendred more strait, whence a more smart Sound also breaks forth, which notwithstanding, can sometimes be hardly distinguished from [e] [y,] also is [i] pronounced longer then usually, or [i] doubled. o. u. w. are Labial Vowels, that is, such as are formed by a different positure of the Lips; also [o.] and [u.] are different from one another, just as much as [e.] and [i]: But [w.] is to [u.] just as j. is to [i.] for indeed a. u. w. are formed, when the Teeth and Tongue keep the same posture; but the Lips are more or less contracted, even as the Teeth are in [e.] and [i.] and so when they are less stricken, [o.] is produced, but when a little more [u.] or [w.]; but we ought carefully to beware, whilst [o.] or [u.] are pronounced, least the Teeth should be seen; for else a certain kind of a soft e. will be mingled; and instead of ö. or ü. there will be produced o. or u. These Letters belong to the French, au and ou, when nevertheless they are nothing else but Diphthongs, also oe. of the Dutch is our u. but very improperly.

Mixt *Vowels* are *ä. ö. ü.* These Characters are peculiar to our Language, and were invented very ingeniously by our Ancients, though our Moderns mostly know not the reason thereof. Each hath its simple Character, because the Sound which they signifie, is only one, tho' mixt; for *a. o.* and *u.* are so pronounced, that the passage of the *Voice*, the *Tongue* and *Teeth* being conjoyned for to pronounce, *e.* becomes Straiter, and so *e.* together with the said Letters, *a. o. u.* doth constitute but one only, yet a *mixt vowel.* The *French* utter them by *ai. eu.* and *u.* and in good truth, badly enough, as any one may

see. The *Dutch* want [ä]. [ö]. and express them by eu. but [ü]. by u. in no better a way than the *French*.

Concerning the *Diphthongs* composed out of these *Vowels*, and which may be thence compounded, I judge it needless to say much; for they are nothing else in our Language than a more then usual swift Pronunciation of the Component *Vowels*, yet successive; and thus they differ from the *mixt Vowels*, but how improper and absurd *Diphthongs* some Nations have, any one may easily gather from what hath been already said.

The other sort of Letters are *Semi-Vowels*, which are therefore so called, because that they be formed indeed out of a *Sounding Breath* or *Voice*, but such as in its progress is much broken. They are, as I said, either *Nasalls*, or such as are pronounced through that open passage, by which the *Nose* opens into the Hollow of the *Mouth*: Now the *Voice* is forced to go that way, either when it flows to the *Lips* shut close, and rebounding from thence, is formed into [m;] or when the *Tip of the Tongue* is so applied to the roof of the Mouth, and to the upper *Teeth*, the *Voice* is made to rebound through the *Nostrils*, and so [n] becomes formed; or lastly, when together with the hinder part of the *Tongue*, the *Voice* being applied to the *Roof*, is so straitned that there is no Egress left open for it, but through the *Nose*, and so [n] is formed; which is a Sound, which hath no peculiar Character in any Language, as I know of, yet it differs no less from the rest of the *Nasals*, (k) is divers from (t) or (p,) if any one desires to try this by himself, let him endeavour to pronounce; having his *Nose* held close with his Fingers, one of these three Letters, and he will not be able to do it.

Or else these *Semivowels* are *Orall*, which are indeed such as are pronounced thro' the *Mouth*, but not so freely as are the *Genuin Vowels*, and they be two, (*I*) and (*r*;) (*I*) is formed when the *Tongue* is so applied to the *Roof*, and the upper *Teeth*, that the *Voice* cannot, but by a small Thred, as it were, get forth by the Sides of the *Tongue*; for if you compress the *Cheeks* to the *Grinders*, you stop up the Passage of the *Voice*, and it will be very difficult for you to pronounce this *Letter*, (*r*,) is a *Voice* fluctuating with great swiftness, and is formed, when the more movable part of the *Tongue* does in the twinkling of an Eye, oftentimes strike upon the *Roof of the Mouth*, and as often is drawn back again from it; for thus the *Voice* formed in the *Throat*, in its pronouncing, flows and ebbs back again, and is uttered, as it were by *Leaps*. Hence it is, that they, whose *Tongues* be too heavy and moist, and less voluble, will never pronounce this Letter, whether they can Hear, or are Deaf.

Now there still remains the *Consonants*, or the Letters, which are formed out of an unsounding or mute *Breath*; yet, out of which, some of the *Semi-vowels* may be made, as *g. ch. s. f. v.*

As the *Voice* is the common matter of the *Consonants*, the sharper part of which is (h) which is the most simple of them all, and out of which diversly figurated, the rest of them are framed: And they are either the *Sibilants*, which are formed out of *Breath*, which is somewhat compressed or straitned, that the passing *Breath* breaks forth with a certain kind of *Hissing*, and with violence.

Here I judge that we are not to pass over in silence, how that there are some parts in *Germany*, where there is so much of Affinity of (g) with (k) as (b) has with (p) and (d) with (k) or where (g) is pronounced like (k) but softer, so also the *French* do pronounce their (g) before a. o. u. and ou.

(s) is formed, when the *Teeth* and *Tongue* are so clapt together, that the *Breath* cannot come forth, but by the *Spaces of the Teeth*: But (f) or (v) (which differs not from (f) in our Language) is formed, when the *neather Lip* is so moved to the *Teeth* above, that the *Breath* must break out thro' the said *Spaces of the Teeth*; ph. is (f) being a Stranger in the *German* Tongue, and differs from it only in the *Character*.

The other kind of *Consonants* are explosive; which, *viz.* are discharged at one push, and as it were, in the twinkling of an Eye and are nothing else but *Breath*, which being got close together, either in the fore, middle, or hinder Region of the Mouth, is discharged on a suddain; and (*k*) is indeed formed in the hinder Region, when the hinder part of the *Tongue* is moved to the *Roof*, that the *Breath* cannot break forth, neither by the *Mouth*, nor by the *Nose*, but is suddenly let loose again: For thus the imprisoned *Breath* breaks out, and by breaking out, maketh *k. c.* or *q.* which in *Germany* are all the same Letter; in the middle Region are *d.* and t. formed, when, *viz.* the *Breath*, by help of the Tongues being moved to the *Teeth*, or *Roof*, and suddainly drawn back again, being more or less compressed, rusheth out by its own Springiness, and so *d.* or *t.* is made, which only differs, as *b.* and *p.* according to the more or less; in the outermost Region of the *Mouth* are formed, (*b*) and (*p*) when, *viz.* the *Breath* being compressed in the whole *Cavity of the Mouth*, they get out through the *Lips* opened.

Lastly; here follows those *Consonants*, which are compounded of *Hissing and Explosion*, such are (x) or ks. and (z) or ts. which only are the alone anomalous or irregular ones of the *German* Language; for if I may speak what I think; we might well enough want these *Characters*; yet I disapprove not of the use of them, but only shew what might be more convenient, viz. that Voice or Breath which is simple, might be expressed also by a simple *Character*, and on the contrary, that a *Character*, which is simple

and only one, would signifie but one only *Voice* or *Breath:* But if the commodious use of *Short-hand* may be objected, I would perswade to express all possible Combinations, of *Vowels*, with *Semi-vowels*, and *Consonants*, by simple *Characters*.

This is what I determined to say concerning the Letters, and their Formation; and seeing I am not willing to write a *Grammar*, what might yet further be said of them, I pass by; but what I have performed, I leave it to others to judge thereof, not so much to teach them, as by what is here presented to excite them, being desirous, as it becomes a young Man, to learn of them: I hope they will pardon my Errors, because of my Youth. Yet certain I am, had the ancient *Hebrews, Greeks* and *Romans*, thus describ'd their Letters, there would have been no contention about the manner of Pronounciation.

CHAP. III.

Teacheth the Method its self, by which such as are Deaf, and consequently Dumb, may learn to Speak.

What hath been hitherto said may enough suffice to observant *Readers*, inasmuch as the Fundamentals of the whole Artifice, are therein contained; but least the curious should complain, that I have only made their Mouth water, I shall ingeniously discover to them what in four Years time, wherein I have endeavoured to instruct some Deaf Persons, I have observed what is worthy, and most necessary to be known.

Now what I have effected by this my Method, especially to the Daughter of Mr. *Kolard*, a Merchant of *Harlem*, I can appeal to a great part of *Holland*, and universally almost to the whole City of *Harlem*, and to innumerable other Witnesses, of all Ranks and Conditions.

The first thing which I require in the Person I am to teach, is, that he be of a docible Wit, and not too young of age; than that the *Organs of Speech* be rightly constituted in him; for stupid Persons are capable of no Teaching, whose Age is yet too tender; nor do they mind enough, nor know how Teaching will be for their Use and Benefit; but those whose *Organs of Speech* are altogether unfit, they may learn indeed to understand others when they speak, and discover their own Mind by Writing; but they will never learn to speak.

Having therefore a fit subject, my first Care is to make him to sound forth a *Voice*, without which, almost all labour is lost, but that one point, whereby Deaf Persons do discern a *Voice* from a *Mute Breath*, is a great Mystery of Art; and if I may have leave to say so, it is the *Hearing of Deaf Persons*, or at least equivolent thereunto, *viz.* that trembling Motion and Titillation, which they perceive in their own *Throat*, whilst they of their own accord do give forth a *Voice*; that therefore the Deaf may know, that I open my Mouth *to emitt a Voice*; not simply to yawn, or to draw forth a *Mute Breath*, I put their Hand to my *Throat* that they may be made sensible of that tremulous Motion, when I utter my *Voice*; then I put the same Hand of theirs to their own *Throat*, and command them to imitate me; nor am I discouraged, if at the beginning their *Voice* is harsh and difficult; for in time it becomes more and more polite.

If I gain their Voice, which for the most part I do at the first time, I soon learn them to pronounce Vowels, viz. I bid them so to moderate the opening of their Mouth, whilst they do form a Voice in their Throat, as I have said above, concerning the Formation of the Vowels; but that they may do that the more easily, I hold a Looking-Glass to them, because they cannot from Sight alone imitate those diverse Motions of the Jaws, of the Tongue, and of the Lips, unless they had oftentimes tried it before a Looking-Glass. Thence I learned, that that common belief, (that so soon as Hearing is restored to Deaf Persons, they will speak) to be false, for it seems not to me, that there is so great a consent betwixt the Organs of Voice, and of Hearing, that at the first blush they can imitate a Voice that is heard; but by often imitating a Voice or Breath received from another, and also by hearing their own at the same time, we find at length a likeness between both, and after this manner we all learn to speak; for he who learns to speak, it is all one, as if he did learn some other Art; for by a long accustoming, the Organs are rendered apt and pliable: Hence it is, that sometimes we come not to pronounce aright Foreign Letters but after a long time. Now, it would be well observed or considered, that I presently prescribe all the Letters to Deaf Persons, or else they could not fix in their Minds their Idea's of them, and I seldom teach more than two or three Letters in one day, least the Idea's be confounded; but I bid them very often to repeat them, and to write them down as they are pronounced by me.

But if by chance, as it sometimes happeneth, that they should pronounce one Letter for another; I blame them not, but rather commend them, and grant with a nodd that they have satisfied me, and forthwith I write down the Character of that Letter upon Paper, that they may knit together the *Idea* thereof with its figure. In the interim, whilst they learn the *Vowels*, I very often put their Hand to my *Throat*, that they may be accustomed to give forth a Sound.

When the *Vowels* are become familiar to them, I go next to the *Semi-vowels*, which sometimes are more difficult, especially the *Nasals*; for Deaf Persons, unless they be taught, never give forth the *Voice* by the *Nose*, thereupon I begin with [m.] as that which is most plain, and easier learnt than the rest, so that they thereby may be accustomed to give a Sound at least thro' the *Nose*; therefore I bid them shut together their *Lips*, and putting their Hand to their *Throat*, to give forth a *Voice*, and by that means they necessarily pronounce [m.] and not [em.] as it's vulgarly pronounced.

The Daughter of Mr. *Kolard*, before she was committed to my Care, could indeed say *Pappa*; for indeed it is a little word, which is almost born with us; but her Father did confess, that he had more than 1000 times tried in vain to make her say *Mamma*, which yet I I brought her to in a small time.

And now, *Reader*, I commit to thee another Secret, *viz.* that if a Deaf Person be committed to thee to teach, beware that you do not teach him to pronounce together *Semi-vowels* and *Consonants*, together with their annexed *Vowels*; as for example, *em. en. ka. ef. te, &c.*

For thus they would learn neither to read, nor rightly to pronounce any word. The power and force of *Semi-vowels* and *Consonants* consists not in the adjoyned *Vowels*, but in a peculiar *Voice* or *Breath*; and when you would have a Deaf Person to say *Tafel* or *Swartz*, you shall hear from him nothing else but *Te. a. ef. e. el.* or *Es. we. a. er. te. zet.* which is very uncouth, nor can you easily mend it: But by this Method, so soon as ever they know their Letters, they begin to read; for *to read is only to pronounce the Letters successively*.

Here note well, that in the Schools this very thing would be of great use, chiefly when they are taught Languages, whose Letters are expressed by whole words, as *Alpha, Omega, Gimel, double u, zet, &c.* For more time is lost, and the desire of Learning taken away from Children, before they are able to abstract the Letters of these Sounds, and to connect them together in *Reading*; so that it is very much to be wonder'd at, that this most eminent short way of reading hath hitherto lain hid in the dark.

The other *Nasalls* [u] and [ng] have nothing peculiar, unless it be that I shew the Deaf the posture of the *Tongue* in a Looking-Glass, and put their Hand to my *Nose*, whereby they may be sensible, that there comes forth thorough the *Nostrils* a *Sounding Breath*. When I teach them [l.] I bid them to apply the *Tongue* to the *upper Teeth*; but to the *Cutters*, and to the *Dog-Teeth* only, that then they may emit a *Voice* thro' the Mouth I make a Sign with my Hand; but least, instead of [l.] they should pronounce [n.] which comes to pass when the *Tongue* doth so hinder the coming forth of the *Voice*, that it returns to get out by the *Nostrils*; therefore, till they are better accustomed, I gently compress the *Nostrils* with my Fingers.

The Letter [r] is the most difficult of all the rest, yet amongst six Deaf Persons, which I have hitherto instructed, four of them pronounce it with the greatest easiness; the other two cannot form it, but in their Jaws; but I teach them, by moving the Hand one while to the *Throat*, and another while to the *Mouth*, whereby they may, as it were, feel the subsulting and interrupted Expulsion of the *Voice*; also I bid them to look often in the Glass, to observe the tremulous and fluctuating Motion of the *Tongue*; but no one can expect at the first trial, the genuin Pronounciation of this Letter.

When the *Vowels* and *Semi-vowels* are well inculcated into them, *the Consonants* are learnt without any trouble almost, for they are a *Simple and Mute Breath*, coming forth, either successively, or suddenly, according to the various *Openings of the Mouth*, and only with putting the Hand to the Mouth almost, they may all easily be learned.

[h] is the most simple of all, nor is it any thing else but Air, which is breathed out thicker, and more swiftly.

[g] or ch. is sharper than [h] which I teach thus, when I shew to my Deaf Patients the posture of the *Tongue* in a Looking-Glass, and give them to feel the expiring *Breath*; it is so in like manner with [s] and [f] insomuch, as nothing is more easie than they, and which may most easily be learned by the foregoing Description.

I can teach a Deaf Man, (though he were blind) the *Explosive Consonants*; for if I cause him to feel the *Breath* discharged upon him, he would necessarily pronounce one of the three; for I bid him to look simply on my *Mouth* and *Tongue*, and then having put his Hand to my *Mouth*, I pronounce either [k] or [b] or [d] [t] and command him to do the like.

(x.) and (z.) are pronounced no otherwise than is (ks.) or (gs.) (when (g) is an *Explosive Consonant*) and (ts.) wherefore I shall add nothing concerning them.

Deaf Persons are to be diligently accustomed to pronounce these *Semi-vowels, n. ng. l. r.* also the following *Consonants; h. g. k. t.* with some kind of opening the *Mouth,* else they may joyn them sometimes with certain *Vowels,* not without a notable yawning, & a discordant noise. Now in general, Winter-time is fitter almost for to instruct the Deaf, because then they see the *Breath* coming forth from the *Mouth,* whilst Pronounciation is in doing.

When therefore I taught any Deaf Person to pronounce the Letters hitherto enumerated, and that one by one, I taught him so to utter two or three of the easiest, that there should be interstice between them; as for example, *ab. am. da. fa. ef. &c.* so that they might be accustomed to pronounce the Letters successively; then by degrees I use them to the more difficult Combinations, mutually mixing *Vowels*, *Semi-vowels* and *Consonants*, and thus with little trouble they learn to read; but if when they have read any thing, I bid them look upon my *Mouth*, and to repeat the same after it hath been pronounced by me; for thus they become by degrees to be accustomed to imitate the humane *Voice*, only by looking on; but I am unwilling to tire them out with this labour, troublesome enough, until they have profited much, because they may be frighted with it.

In the mean time we must endeavour diligently; that when one *Consonant* follows another *Consonant*, as $ps.\ kt.\ ks.\ sch.\ \&c.$ or a Semi-vowel, as $ls.\ lk.\ md.\ \&c.$ that they do immediately joyn them in Pronounciation, least some (i) or (e) be heard between them, which unless it be cautiously avoided, often happens.

When they can read, and in a manner understand others when they speak, I treat them like new-born Babes; first, I teach them *Nouns*, which are obvious, as well *Substantives* as *Adjectives*, so also the most necessary *Verbs* and *Adverbs*, than *Declinations* and *Conjugations*; but here that five-fold turning Orb was of most excellent use to me, it being a rich Treasury of the whole *German* Tongue, which I found in the Mathematical Delights of *Swenter*, I augmented it, and applied it also to the *Dutch* Idiome; out of it may they quickly, and with pleasure learn all possible *Combinations* of *Vowels*, *Semi-vowels*, and *Consonants*, also all terminations of *German* words, and that as well Derivatives as Compounds. The first Orb contains *Prepositions* and small *Mono-Syllables*, with which *Nouns* and *Verbs* are compounded; the second, the *Initial Letters*; the third, *Vowels* and *Diphthongs*; the fourth, the *Final Letters*; lastly, all the *German Terminations*.

But there seems to be a great difficulty, that some Letters, as e. and i. a. and u. are uttered by the same opening of the Mouth, and consequently they must needs be confounded; but in good truth, it's of small moment, because for the most part the difference is not heeded, and the Letters, which according to their nature, are by far, more different, are written almost after the same manner, chiefly when they are pronounced hastily, as m. and n. r. and n. a. and o. &c. which yet puts no stop to an exercised Reader.

Others object, that the *Deaf* thus taught, will, it may be, understand no Body but my self: Indeed, this difficulty Teems to have something of weight in it; but we must know, that Menst Men pronounce most Letters badly alike, and write their Characters negligently; but with such a one who learns to speak, it is all one as it is with him, who is taught to read other Men's Writings: For first, he can scarce read any thing but what is written by his Master, and then the Writings of his School-fellows; and lastly, there is nothing which he cannot read, tho' very badly written, it is therefore not to be wondred at, if those I teach to speak, do at the beginning more easily understand me, than others; (for I pronounce the Letters in their full *extension*) and not *lamely* (as many are wont to do) and after that they come to understand their Domesticks and Familiars, and at last, any Body.

Here in the end I add, that most of the Letters may be formed, as well by inspiring as by expiring, which thing I have very much wondred at in some Persons, who *speak out of the Belly*: And once at *Amsterdam* I heard an old Woman speaking both ways, and made answers to her self, as to questions, so as I would have sworn that she talked with her Husband two or three Paces distant from her; for the *Voice* being swallowed up in her in Breathing, would seem to come from far.

Behold, Reader, a small Tract of three days; if thou wilt offer any thing more, right and true, I will receive it with thank: There are yet some other things, viz. how a deaf Person may be made, so as to be able to discern from one the other, some Letters pronounced by another, as m. from b. n. from d. ng. from k. &c. or how the quantity of Syllables is to be govern'd. But these, and the like, can scarce be learnt, but by teaching.

THE CONCLUSION.

The *Author* is thinking to turn this small Treatise into the *Dutch*, and very speedily, God willing, to publish it for the good of the Nation, and will so adapt it to the Idiom thereof, as to make it to be accounted proper. Nothing being more in the *Authors* care than that by this his slender endeavour, he shall stir up some one to perform the like, or at least to attempt it: Now if there occurs to any Body, any thing, either too hard, or not sufficiently explained, he may expect a more full Edition, or else let him repair to the *Author*, who according to the Light granted unto him, will refuse nothing to any Man.

THE END.

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