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ARTICLE ON  
KITTO'S "LOST SENSES,"

BY PROFESSOR YOUNG.

(From "*The North British Review*.")

1845.

# COLUMBIA INSTITUTION

—FOR THE—

DEAF AND DUMB

THE CHARLES BAKER COLLECTION

NUMBER

B 371.9  
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ART. II.—*The Lost Senses*, vol. i. *Deafness* : vol. ii. *Blindness*.  
By JOHN KITTO, D.D., Editor of the Pictorial Bible, of the  
Biblical Cyclopædia, &c. London, 1845.

THE intelligent and accomplished author of the two interesting volumes, whose titles we have placed at the head of the present article, has the misfortune to be deaf. The calamity under which he labours is the result of an accident which befel him at the age of twelve years—a time of life at which he had, of course, acquired a good knowledge of spoken language through the ordinary channel. Happily for him, he had also learned to read and write ; and had, moreover, imbibed a taste for books. The first of the volumes referred to, has much the character of an autobiographical narrative,—it is a detailed and cleverly-written account of Dr. Kitto's personal and individual experience in the

deaf state, and abounds with many acute, philosophical, and valuable remarks in reference to that peculiar condition.

It does not, however, throw much light upon the circumstances, feelings, and difficulties which connect themselves with the more melancholy position, and more laborious and painful progress of a person to whom the sense of hearing has been denied from birth; and, therefore, as in some measure supplementary to what Dr. Kitto has recorded, we shall intersperse, in the present notice, a few incidental remarks, touching the more afflictive dispensation of congenital deafness.

It would scarcely have been reasonable to have expected that Dr. Kitto, in discussing his own case, should have dwelt at much length upon this more aggravated form of the same calamity, the experience of which, with all its concomitant privations, happily for him he has not known. The two cases are indeed very widely different, resembling one another in little more than in the palpable fact, that in each there is the same insensibility to existing sounds. When we use this word *sound*, we employ a term with the meaning of which the author before us is perfectly familiar—we refer to that, with the importance of which, as a vehicle of thought, he was once practically acquainted, and the conception of which, he even now possesses, and habitually associates with the written characters of speech. It is very different with the deaf-born. For him sound never existed; and the intercourse of those around him, by means of the vocal organs, is to him a mystery which no effort of conception on his part can help him to unravel. His attention has, indeed, been attracted to this wonderful medium of intercourse between mind and mind from early childhood; and both his curiosity and his imagination have, no doubt, often been anxiously, though fruitlessly excited on the subject: but he at length resigns himself to the fact—withdraws his efforts from the hopeless inquiry—cultivates, in silence, his own imperfect gesticulations, and waits in patient acquiescence, perhaps in hopeful expectation, the solution of a problem which time can never explain.

That the difference between a person thus circumstanced, and one who can hear, is sufficiently described in the summary statement, that the latter enjoys the sense of hearing which the former wants, is a position which the slightest reflection will shew to be very far from the truth. It is not the want of *hearing* on the part of the deaf-born that constitutes the only difference between him and others, nor does this by any means constitute the chief difference. The want of hearing, simply, is in fact a defect of comparatively small moment—a privation of comparatively easy endurance: it is the want of *language* that creates the immense chasm between the uneducated deaf-mute, and the un-

educated hearing person.\* Before the education of the latter commences, he is in possession of language, that is, of all the requisite apparatus for carrying on the work to any extent: the deaf-mute begins with absolutely nothing of this apparatus; it has to be constructed piece by piece before him, and he cannot attain to the familiar use of it, without years of assiduous application under a system of direct instruction of a peculiar kind. Children, in general, learn language insensibly, and without effort—for Nature is the teacher: but the deaf-mute is precluded from her instructions, and is dependent upon the artificial schemes of man's devising. It is no easy thing to impart language to the deaf and dumb—to supply, by human ingenuity, what, through the ordinary channel, God in his wisdom has seen fit to withhold; and we may accordingly expect that, even when all that art can achieve has been accomplished, the result will still be marked with that imperfection which always attaches itself to every human performance. When we converse with a little child of three or four years old, and reflect for a moment upon the simplicity of the means employed—the absence of all effort on his part—the proverbial intractability of infancy, and yet witness his ready command over so mighty an instrument of thought as language is, we cannot fail to be impressed with the same sense of the silent operations of Omnipotence, that the contemplation of every department of nature necessarily awakens. But this impression is forced on the mind with increased vividness, when we compare his position with that of the uneducated deaf-mute—a being destitute of that which forms the most striking distinction between man and brute, separated from the rest of his species, and remaining alone in the midst of millions.

An erroneous opinion prevails that blindness is a greater affliction than deafness. This would unquestionably be true if privation of sight precluded the acquisition of language, which it does not; nor, as ample experience shows, does it oppose any very serious obstacle to the full development of the mental powers. We are all familiar with many well authenticated instances of blind persons having attained to a distinguished position both in literature and science. The celebrated Saunderson, who filled the chair of Newton in the University of Cambridge, lost his very eye-balls by the small-pox when only twelve months old; yet before he was thirty, we find him giving public lectures on optics, explaining clearly the theory of vision, and discoursing admirably on the phenomena of light and colours—thus furnishing, by his own extensive acquirements, a convincing proof of the extraordinary powers of language, and of the full efficiency

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\* Watson's "Instruction of the Deaf and Dumb." *Passim*. This interesting and truly philosophical performance, is much less generally known than it deserves to be. It was published in London in 1809.

of the ear as an avenue to the mind. The darkness of the blind, as such instances as this sufficiently show, is but a physical darkness; they still possess a ready channel through which the brightest beams of intellectual light may be freely poured; but the darkness of the deaf-mute is a mental and a moral darkness; and though he can gaze abroad upon creation, yet it is little more than mere animal gratification that he feels; he looks not "through nature up to nature's God," nor does he participate in that high communion which, through the sublimity of her visible language, she holds with the soul of an enlightened being.

The reason why the blind usually receive from us a deeper sympathy than the deaf, is perhaps because the amount of privation borne by the former can be more accurately estimated. We have only to close our eyes, to shut out for a while the glorious light of heaven, in order to conceive how great that privation must be. But we can never for a moment occupy the place of the uneducated deaf and dumb; we cannot shut out our moral and intellectual light; we cannot dispossess our minds of all that language has conveyed there, nor realize, by any effort of imagination, the melancholy condition of a being grown up in the midst of society, yet deprived of all power of social intercourse, whose mind has never been elevated by a single act of devotion, nor soothed and comforted by a single impulse of religious feeling. Man naturally "looketh on the outward appearance;" and when we see the bright eye, and the contented and even joyous aspect of the deaf-mute, we forget that we may witness all this in "the brutes that perish."

It may probably be thought by some, that in thus depicting the mental and moral condition of the deaf and dumb, we are drawing upon imagination, and magnifying their affliction, and that we altogether overlook the value of *signs*, the peculiar language of the deaf-mute, as a medium of communication. But it is not so. Of the importance of signs we are fully sensible; and readily admit their immense advantage, in the absence of a more perfect channel, in imparting to the deaf a knowledge of written language; yet, as used by the uneducated deaf and dumb, gesticulation, as every teacher knows, is of extremely limited scope, barely sufficing to make known his mere physical wants and animal emotions, and to describe, though with much vagueness and ambiguity, events, or rather *actions*, which may have passed before his own eyes, or in which he may himself have engaged. Experience furnishes no instance in which a deaf-mute, having nothing but the language of signs at his command, had ever attained to any distinct notion of a future world, of his own moral accountability, of man's ultimate destiny, or even of a Supreme Being.

Now, it is important to bear in mind that all this melancholy

amount of privation arises, not from the want of hearing, but from the want of ordinary language—a want which no system of mere gesticulations can ever supply; and therefore that, in estimating the condition of the deaf, we must not overlook the fact, that those who come under this designation divide themselves into two distinct classes, separated from one another by a wide and essential difference—a difference which may indeed be narrowed by artificial aid and human contrivance, but which, in ordinary circumstances, can never be wholly obliterated.

The author of the volumes before us enjoyed the blessings of hearing for twelve years. It is true these were the years of infancy and childhood; yet, during that brief and thoughtless period, nature, as we have endeavoured to show, had been carrying on, by insensible but continuous advances, her great work; and a mastery over language must in that time have been secured, which, had he been born deaf, the longest life devoted to the task would scarcely have enabled him to attain. With this important acquisition, and aided by only the *memory* of the ear, he has, by dint of assiduous self-culture, acquired for himself a wide reputation for varied knowledge; and is, moreover, not merely an agreeable, but a graceful writer. The events of the day on which his misfortune befel him are thus graphically and impressively related:—

“On the day in question, my father and another man, attended by myself, were engaged in new slating the roof of a house, the ladder ascending to which was fixed in a small court paved with flag-stones. The access to this court from the street was by a paved passage, through which ran a gutter, whereby waste water was conducted from the yard into the street.

“Three things occupied my mind that day. One was, that the town-crier, who occupied part of the house in which we lived, had been the previous evening prevailed upon to entrust me with a book, for which I had long been worrying him, and with the contents of which I was most eager to become acquainted. I think it was ‘Kirby’s Wonderful Magazine;’ and I now dwell the rather upon this circumstance, as, with other facts of the same kind, it helps to satisfy me that I was already a most voracious reader, and that the calamity which befel me did not create in me the literary appetite, but only threw me more entirely upon the resources which it offered.

“The other circumstance was, that my grandmother had finished, all but the buttons, a new smock-frock, which I had hoped to have assumed that very day, but which was faithfully promised for the morrow. As this was the first time that I should have worn that article of attire, the event was contemplated with something of that interest and solicitude with which the assumption of the *toga virilis* may be supposed to have been contemplated by the Roman youth.

“The last circumstance, and the one, perhaps, which had some ef-

fect upon what ensued, was this: In one of the apartments of the house in which we were at work, a young sailor, of whom I had some knowledge, had died after a lingering illness, which had been attended with circumstances which the doctors could not well understand. It was therefore concluded that the body should be opened to ascertain the cause of death. I knew this was to be done, but not the time appointed for the operation. But, on passing from the street into the yard, with a load of slates which I was to take to the house-top, my attention was drawn to a stream of blood, or rather, I suppose, bloody water, flowing through the gutter by which the passage was traversed. The idea that this was the blood of the dead youth whom I had so lately seen alive, and that the doctors were then at work cutting him up and groping at his inside, made me shudder, and gave what I should now call a shock to my nerves, although I was very innocent of all knowledge about nerves at that time. I cannot but think it was owing to this that I lost much of the presence of mind and collectedness so important to me at that moment; for when I had ascended to the top of the ladder, and was in the critical act of stepping from it on to the roof, I lost my footing, and fell backward, from a height of about thirty-five feet, into the paved court below.

“Of what followed I know nothing; and as this is the record of my own sensations, I can here report nothing but that which I myself know. For one moment, indeed, I awoke from that death-like state, and then found that my father, attended by a crowd of people, was bearing me homeward in his arms: but I had then no recollection of what had happened, and at once relapsed into a state of unconsciousness.

“In this state I remained for a fortnight, as I afterwards learned. These days were a blank in my life; I could never bring any recollections to bear upon them; and when I awoke one morning to consciousness, it was as from a night of sleep. I saw that it was at least two hours later than my usual time of rising, and marvelled that I had been suffered to sleep so late. I attempted to spring up in bed, and was astonished to find that I could not even move. The utter prostration of my strength subdued all curiosity within me. I experienced no pain, but I felt that I was weak; I saw that I was treated as an invalid, and acquiesced in my condition, though some time passed—more time than the reader would imagine, before I could piece together my broken recollections so as to comprehend it.

“I was very slow in learning that my hearing was entirely gone. The unusual stillness of all things was grateful to me in my utter exhaustion; and if, in this half-awakened state, a thought of the matter entered my mind, I ascribed it to the unusual care and success of my friends in preserving silence around me. I saw them talking, indeed, to one another, and thought that, out of regard to my feeble condition, they spoke in whispers, because I heard them not. The truth was revealed to me in consequence of my solicitude about the book which had so much interested me on the day of my fall. It had, it seems, been reclaimed by the good old man who had sent it to me, and who doubtless concluded that I should have no more need of books in this

life. He was wrong; for there has been nothing in this life which I have needed more. I asked for this book with much earnestness, and was answered by signs which I could not comprehend.

“ ‘ Why do you not speak ? ’ I cried ; ‘ Pray let me have the book.’

“ This seemed to create some confusion ; and at length some one, more clever than the rest, hit upon the happy expedient of writing upon a slate, that the book had been reclaimed by the owner, and that I could not in my weak state be allowed to read.

“ ‘ But,’ I said in great astonishment, ‘ Why do you write to me, why not speak ? Speak, speak !’

“ Those who stood around the bed exchanged significant looks of concern, and the writer soon displayed upon his slate the awful words—*YOU ARE DEAF !*”—*Deafness*, pp. 8–11.

The above touching account will, no doubt, remind the reader of the graphic clearness and circumstantial simplicity of De Foe ; although, in this remark, we admit that we pay the higher compliment to the latter writer, who could give such verisimilitude to the creations of fancy.

The language just quoted, notwithstanding its transparency, and entire freedom from meretricious ornament and flowers of speech, is, we hesitate not to say, beyond the attainment of the deaf-born, however carefully they may be instructed—prodigies, of course, always excepted. We do not affirm that a well-educated deaf-mute would be unable to read the above narration with intelligence, or to enter as fully into its spirit as others. We do not affirm that the words employed would present any insuperable difficulty to him. But we do affirm, that the nice adjustment of those words—their harmonious collocation, are things which, in the absence of all conception as to the office and influence of the ear, can never be completely understood, nor, in consequence, adequately appreciated. In the volumes before us, this influence has obviously presided over every page : the memory of hearing has made it virtually present ; and every sentence that flowed from the pen, and addressed itself to the eye, was arrayed, in the mind of the author, in all the appropriate drapery of sound. To the deaf-born, these same sentences will present nothing but cold naked type—the purely arbitrary and artificial characters of man’s contriving, conventionally employed as the visible symbols of thought and feeling ; but not associated therewith by any tie, nor touched and animated by any trait of nature’s own. With Dr. Kitto, as with people in general, the written character is the symbol of the articulate sound. Had he suppressed the circumstance of his peculiar affliction, we could never have discovered it from any internal indications of the fact in his *prose* writings : we might, perhaps, have suspected it from his *poetry*. His memory of the more delicate functions of the ear, as brought into exercise in this species of composition, is, we suspect, losing its vividness ; his sense of poetical cadence and rhythmical harmony—no doubt

from the want of assiduous cultivation—beginning to wane. Of this he is in some degree apprehensive, and, with much candour, has submitted several of his poetical productions to examination, for the purpose of determining the fact. In adverting to these, it is proper to mention, that the author disclaims all poetical pretensions, and insists upon their being read only for the single experimental purpose for which they are introduced. We surmise, however, that their intrinsic merit will induce most of his readers to disregard the injunction which *we* propose implicitly to obey.

The following is from a piece entitled "ALTERNATIVES."

" Could all the voices and glad sounds  
Which have *not* fallen on my sense,  
Be rendered up in one hour's bounds—  
A gift immense ;—  
I'd for one whisper to my heart,  
Give all the joy this might impart."—*Deafness*, p. 172.

We think the third line of this quotation betrays the absence of the ear.

Again :—

" A storm arose. The waves their hue  
To fleecy white changed from deep blue ;  
\* \* \* \* \*  
But my soul plunged into the gloom  
To hail the symbols of its doom."—P. 174.

The second line, and the last but one, displease the ear from the emphasis being thrown on the more insignificant words ;—the prepositions.

And, as respects the line—

" And look down with a smile of scorn."—P. 175,

the ear would prefer the following collocation of the same words :

And with a smile of scorn look down.

But we will not seek for further blemishes of this kind, which are more or less inseparable from the poetical compositions of one whose hearing has been long lost, and the memory of its nicer discriminations been suffered to fade. The attempts at poetry of the deaf-born—and we have seen several such attempts—are, of course, strongly marked by like imperfections ; and when these are not plainly observable, the genuineness of the specimen may be very reasonably doubted. We are convinced, however, that Dr. Kitto is a much better writer than he is a reader of poetry ; and that even his prose compositions must materially suffer from his own audible delivery of them : and must lose many of the excellencies they would be found to possess from the lips of another. However accurate his ideas of pitch, intonation, &c. may be, he cannot be sure that his vocal organs do full justice to his conceptions : and if his performance fall below his aim,



he has nothing to admonish him of the failure. In such audible delivery, we conceive the actual superintendence of the ear to be absolutely indispensable to a faultless execution. When in possession of this monitor, we pay little attention to the mere mechanism of speech; so that, when hearing is lost, we are thrown a good deal upon conjecture, and pure guess-work, in the nicer adjustments of the organs. It was, we think, from keenly feeling the want of the essential superintendence of the ear to perfect utterance, that Dr. Kitto, whom the providential affliction recorded above had made deaf, had well-nigh made himself dumb. Referring to his feelings shortly after the accident, he says—

“Although I have no recollection of physical pain in the act of speaking, I felt the strongest possible indisposition to use my vocal organs. I seemed to labour under a moral disability which cannot be described by comparison with any disinclination which the reader can be supposed to have experienced. The disinclination which one feels to leave his warm bed on a frosty morning, is nothing to that which I experienced against any exercise of the organs of speech. The force of this tendency to dumbness was so great, that for many years I habitually expressed myself to others in writing even when not more than a few words were necessary; and where this mode of intercourse could not be used, I avoided occasion of speech, or heaved up a few monosyllables, or expressed my wish by a slight motion or gesture;—*signs*, as a means of intercourse, I always abominated; and no one could annoy me more than by adopting this mode of communication. In fact, I came to be generally considered as both deaf and dumb, excepting by the few who were acquainted with my real condition; and hence many tolerated my mode of expression by writing, who would have urged upon me the exercise of my vocal organs. I rejoiced in the protection which that impression afforded; for nothing distressed me more than to be asked to speak: and from disuse having been superadded to the pre-existing causes, there seemed a strong probability of my eventually justifying the impression concerning my dumbness which was generally entertained. I now speak with considerable ease and freedom, and, in personal intercourse, never resort to any other than the oral mode of communication.”—P. 19.

This happy circumstance was brought about through the efforts of two friends who accompanied the author on his first voyage to the Mediterranean; and who, in conjunction with the captain, conspired to disregard every word he said otherwise than orally, throughout the voyage. We wholly dissent from the hypothesis which the author proposes, to account for his repugnance to speak:—a functional derangement of the vocal organs, as a consequence of the loss of hearing: and which hypothesis he is inclined to extend to cases of congenital deafness. We conceive his reluctance to be wholly attributable to the circumstance of the changed character which, to him, his speech assumed, when it ceased to be recognised by him as the utterance of articulate

*sounds*, and became nothing but inaudible *actions* of the organs : mere mechanical movements uncontrolled by the superintending influence of the ear, and apparently deprived of all their former vitality. A like repugnance is generally more or less experienced by all persons in the author's circumstances; who, as a duty they owe to themselves, should vigorously strive to overcome this propensity to silence. A case is recorded of a military officer whose organs of hearing became paralysed from the effects of a cannonade, and who, from neglecting to cultivate his speech, became ultimately unintelligible even to his nearest relatives. As to the supposed "connexion between the organs of hearing and of speech," the notion is a fallacy. Professional experience on this point is very extensive; and we believe that not a single case of congenital deafness has ever been discovered, connected with the slightest degree of imperfection in the organs of speech. The external parts of the ear, too, are almost invariably found to be perfect; but it may not be wholly uninteresting to record, as a rare fact, that one instance has come under our own observation, in which the external ear was entirely wanting: at the usual place of the orifice, on either side, nothing was observable but a slight pucker of the flesh. The individual was a girl, from Newfoundland; and she was an inmate of the London Asylum about the year 1817.

Although Dr. Kitto has not recorded the circumstance, yet we have no doubt that his hearing often returns to him in dreams; and that the vividness of his conceptions of sound and speech is, in some degree, renewed and preserved in this way;—like the fading features of a long lost friend: and thus the mysterious phenomena of dreams may subserve an important purpose to those who labour under the loss of any of the senses. An intelligent blind friend, who lost his sight at the age of eighteen, writes to Dr. Kitto as follows:—

"Dreams are to me always replete with images of visible objects. In them I most decidedly *see* every person and thing which then becomes a subject of cognizance; and they appear under the same aspects, and are invested with the same circumstances, as those which my imagination gives to them when I am awake, unless occasionally distorted or changed in the same way that familiar objects are often modified in the dreams of those who see. It is further remarkable that I do not remember to have had, for some years after losing my sight, the slightest consciousness in dreams that I was really in a state of blindness. More recently, my mind has occasionally, even in sleep, reverted to this fact; but the consciousness has always been accompanied by the delightful feelings of one surprised to find himself suddenly restored to the possession of a treasure which he had lost."—*Blindness*, p. 250.

Whatever pleasure and advantage may in this way be derived from dreams, must be utterly unknown to those who labour

under the far heavier calamity of congenital deafness, or congenital blindness. To them, sound and sight are beyond the sphere even of imagination : and, without a direct supernatural revelation, they can know nothing of these blessings even in dreams. It is further of advantage to those who once heard and saw, that their past experience of these privileges often stands them instead of their present possession, in the ordinary scenes of life ; and it is interesting to observe how happily the deaf who once heard, and the blind who once saw, frequently supply their "lost senses" by a careful attention to, and a judicious inference from, those concomitant and attendant circumstances which attract little or no regard from others. The eye of the deaf rapidly comprehends and combines all the indications presented to that organ ; and memory and imagination complete the picture, by suggesting the sounds in appropriate keeping with the visual impressions.

"It will surprise many readers to know that few persons speak in my presence concerning whose voice I do not receive a very distinct impression. That is, I form an idea of that person's voice by which it becomes to my mind as distinct from the voices of others, as, I suppose, one voice is distinct from another to those who can hear. The impression thus conveyed is produced from a cursory, but probably very accurate, observation of the person's general physical constitution, compared with the action of his mouth and the play of his muscles in the act of speaking. I form a similar idea concerning the laugh of one person as distinguished from that of another ; and when I have seen a person laugh, the idea concerning his voice becomes in my mind a completed and unalterable fact. The impression thus realized would seem to be generally correct. I have sometimes tested it, by describing to another the voices of persons with whom we were both acquainted, and I have not known an instance in which the impression described by me has not been declared to be remarkably accurate. This faculty must be based upon experiences acquired during the days of my hearing, and cannot be realised by the born deaf, seeing that it is impossible for them to have any idea of *sounds* produced by the action of the vocal organs, and still less of the peculiarities by which one voice is distinguished from another."—*Deafness*, p. 29.

In like manner, with respect to the blind :—Dr. Kitto's sightless correspondent, before referred to, writes as follows :—

"In public assemblies, whether for church, platform, or musical purposes, my recollections of former scenes readily, as though but yesterday visible to the eye, picture forth the whole to the imagination, in all the corresponding circumstances of both the speakers and the auditors. I cannot conceive of any shade of difference in any particular between the ideas of my own mind, with reference to external objects and those of persons who have never experienced the absence of sight ; and certainly not between my own present notions and what they would have been had I never been called to endure this priva-

tion. In walking abroad amidst the verdure and foliage common to rural scenes, the nature of the one is readily intimated by the foot, and the extent and quality of the other by the gentlest breeze; or perhaps the season of the year is indicated by the still stronger gale, the various notes of the feathered tribe changing with the periods of the year; all these, and many more circumstances, contribute to give the outline of the picture, or to furnish materials from which the imagination can supply a complete landscape, even though the spot may be one altogether new to my experience."—*Blindness*, p. 249.

The quotations now given, and the observations with which we have connected them, will perhaps sufficiently show the great difference, as respects the facilities for acquiring information, between those who have *lost* a sense and those to whom that sense has been *denied* from birth; and more especially the immense vantage ground occupied by those who once heard as compared with the deplorable position of the congenitally deaf. We fear that the author before us has not sufficiently discriminated between these two very distinct conditions. He says,—

"Almost every one whose acquaintance is extensive will know several blind men of high talent and acquirement, and eminent in science or literature, but among the deaf he will not know one so distinguished. In fact, one may tax his memory in vain for the name of a single deaf person of any note in past or present times, while the names of a host of blind men, distinguished in every branch of knowledge,—not even excepting optics,—rush to the mind in the effort of recollection. One who, like the present writer, has been enabled, notwithstanding his utter deafness, to give some attention to the higher branches of literature, cannot but be keenly alive to this great difference, and must sigh with regret as he compares the blank page before him with the crowd of illustrious or remarkable names which occur in that devoted to the history of the blind."—*Blindness*, p. 6.

Many circumstances combine to account for this, irrespective of those arising out of the more formidable obstacles with which the deaf-born have to contend, and which we have already sufficiently dwelt upon. In the first place, the blind, even at the present day, are a much more numerous class of persons than the deaf. How much greater must the disparity of numbers have been at the periods when the remarkable individuals alluded to above lived, when the blessings of vaccination were either wholly unknown or little appreciated! Some few cases of deafness have, indeed, been the result of malignant small-pox; but every body knows how largely this fearful scourge has added to the community of the blind. At present, in Great Britain, there is one in 1585 of the population deaf and dumb, and one in 1000 blind; that is, the ratio of the blind to the deaf is about that of 8 to 5, and this, be it remembered, when the advantages of vaccination are very widely diffused and understood. It should

be borne in mind, in the next place, that the deaf and dumb, even when but partially educated, are less completely excluded from the ordinary industrial occupations than the blind: they have much more ample choice of the means for obtaining a livelihood, as shoemakers, tailors, printers, or even as clerks and artists. They are thus less imperatively urged to literature and science, as purely professional pursuits, than the blind, who, till a comparatively recent period, seemed destined to limit their election from one of two professions, viz. that of a scholar or that of "a blind fiddler." It is likely, moreover, that persons who have lost their hearing after their knowledge of language has been confirmed, may sometimes feel a reluctance to communicate the fact of their condition to the public. Mrs. Phelan, or rather Mrs. Tonna, (Charlotte Elizabeth,) a very successful and accomplished writer, and to one of whose productions Dr. Kitto refers with commendation, was in the same predicament as himself, having lost her hearing in early life, a fact of which, perhaps, Dr. Kitto was unaware.\* But even among the born-deaf there have been per-

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\* The following interesting particulars of this highly accomplished lady, have been furnished to us by her lately bereaved husband:—

"Mrs Tonna lost her hearing at the age of nine or ten. It was entirely gone. I believe from a thickening of the membrane of the tympanum. No sound of any kind reached her, as a sound; although she was acutely sensitive to vibrations, whether conveyed through the air or through a solid medium. In this way the vibrations from an organ, or from the sounding-board of a piano-forte, gave her great pleasure: and from her recollection of Handel's music, she took great delight in it; and from the vibrations, would *recollect* the sounds so familiar in her childish days. You will see some particulars of this in her 'Personal Recollections.'

"On one occasion, at the age of twenty-two or twenty-three, a new country dance was played: the tune was called the 'Recovery,' the rhythm of which is very peculiar. She was, as usual, at her station, with her hand on the sounding-board, when some friends present expressed a doubt as to the possibility of her forming any idea of the tune. She sat down at once, and wrote a song, which I possess, most perfectly adapted to the tune in all its changes.

"There is a poem of hers beginning, 'No generous toil declining,' which it is quite difficult to read as poetry, until informed that it was written to the tune of 'A rose-tree in full bearing,' and to that it is perfectly adapted. The poem is included in the volume of Posthumous Poems about to be published; in which it will plainly be seen that most of her poems were written to mental tunes. All conversation was conveyed to her by the fingers—spelling each word, without any attempt at short-hand, which she said always confused her. After repeating to her sermons and speeches from the most rapid *Irish* speakers, I have often been distressed at the apparent impossibility of her having understood me; for I felt that I had repeatedly rather indicated than completed the formation of each letter. Seeing my distress, she would often begin and give me every head of division of the sermon; together with the most striking passages, *verbatim*, as the orator had uttered them.

"We never divided the words, but spelt on the letters as fast as it was possible to form them on the fingers.

"When in society I have been repeating to her a general conversation, and communicating the remarks made by each individual, her eye would incessantly range about the room, catch the expression of each speaker's face, and yet never lose a word of what was said. Strangers were amazed at seeing a smile on her face at the very instant that a humorous remark was being made. The power and quickness of her eye was truly surprising."

sons of very extensive literary and scientific acquirements. The reason that such persons do not appear as authors arises, we are persuaded, from the circumstance we have already noticed,—a suspicion of their inability to invest their productions with the requisite graces of composition; we much regret that an apprehension of this kind,—though to some extent well founded, should operate as a bar to their attaining that intellectual position in the estimation of the public to which they are unquestionably entitled. We quote below a record of what appear to be some well attested instances of highly cultivated deaf persons, pupils of one of the very earliest of the instructors of the deaf and dumb,—Pedro de Ponce,\* and shall here mention another example of very superior attainment in a pupil of one of the latest and most enlightened teachers of that interesting class, Dr. Joseph Watson.

The gentleman to whom we now allude was born deaf, and was under Dr. Watson's instructions for ten or eleven years. At the age of about eighteen, he was well versed in English literature and general history; could read the French and Latin languages with facility, and was a very good mathematician. Evidence of his ability in this latter character, when he was about sixteen, may be seen in the "*Mathematical Companion*" for 1823. As this work is out of print, and somewhat scarce, we will here transcribe one of the questions to which he furnished an accurate solution:—"Find three square numbers in arithmetical progression, such that if from each number its root be subtracted, the three remainders may be square numbers."† Every algebraist knows, that this belongs to a class of problems of considerable difficulty; and that here quoted is one of which the solution requires more than the ordinary algebraical skill and address. The name of the gentleman to whom we here refer, was first generally introduced to the public in 1829, by the following announcement in the London Newspapers:—"Mr John William Lowe, a gentleman deaf and dumb from his infancy, was, on Saturday last, called to the bar by the Society of the Middle Temple. This, we believe, is the first instance on record

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\* Dans les archives de ce même couvent (the convent of Oua) on trouve l'acte d'une fondation d'une chapelle, fait consigné par Pedro de Ponce, lequel atteste que les sourds-muets ses élèves, parlaient, écrivaient, calculaient, priaient à haute voix, servaient la messe, se confessaient, parlaient le Grec, le Latin, l'Italien, et raisonnaient très bien sur la physique et l'astronomie. Quelques uns sont même devenus d'habiles historiens. Ils sont, dit quelque part Pedro Ponce, tellement distingués dans les sciences, qu'ils eussent passé pour des gens de talent aux yeux d'Aristote. Degerando, de l'*Education des Sourds-Muets*, tome i., p. 310. Ponce died in 1584. The preceding note is copied by Degerando from a passage in Dr. Gall's work on the nervous system, which was communicated by a learned Spaniard, M. Nunez de Taboada: the facts it records are attested by several contemporary writers.

† Gentleman's *Mathematical Companion*, 1823, p. 214.

of a deaf and dumb person attaining the distinction of Barrister-at-Law." It is proper to add, that Mr. Lowe converses *viva voce*; and that a stranger might interchange several sentences with him before discovering that he was totally deaf.

In referring to such eminent examples of the instructed deaf and dumb, the name of Massieu, the celebrated pupil of the Abbé Sicard, will naturally occur to every one at all conversant with the subject on which we are now writing; and it would be thought unpardonable if we were to pass him over in silence. We confess, however, that we feel strongly disposed to do so, as we never approach the consideration of his case without feelings of utter bewilderment. If the answers to the questions publicly proposed to this distinguished individual be really genuine, we can only say, that he must have been a prodigy of the most prodigious kind—a phenomenon altogether inexplicable—defying the evidence of all past experience, and removing the ground for all future expectation. One who knew him well, and who is admirably qualified to form a just opinion, in speaking of the only work he ever wrote—A Nomenclature for the use of the Deaf and Dumb—says of it, that it “a le double vice d’être exubérante, par la multiplicité de mots inutiles aux sourds-muets qu’elle contient, et d’être dépourvue de toute méthode logique, condition qui seule peut faire le mérite d’un tel travail.” And that “M. Massieu n’a jamais pu parvenir à écrire le Français d’une manière parfaitement correcte et pure.”\*

We saw this remarkable person, with his venerable master, the Abbé Sicard, when in London in 1815. We did not attend any of his public exhibitions; we saw him in more private circumstances; and, from the reputation which had preceded him, we were amazed to witness his inordinate predilection for gesticulation, even when conversing with hearing persons familiar with the French language. Dr. Kitto says, in the passage we have quoted at page 339, that he “abominates signs:” so does every highly educated deaf person that we have ever seen, with the single exception of Massieu; and when this is coupled with the above-quoted declaration of Degerando—that Massieu could never write the French language with accuracy, we think that our readers will, with us, entertain some misgivings as to the genuineness of the answers subjoined to the following questions, and which are stated to have been given by Massieu spontaneously, and at the spur of the moment.†

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\* Degerando: *De L’Education des Sourds-muets de Naissance*. Tome i. p. 574. Paris, 1827.

† Massieu died a few months ago, at Lisle, where he had conducted an establishment for the Deaf and Dumb, for many years; with what success we have not been able to ascertain. As he was born about the year 1772, he must have attained the good old age of 74.

“ Q. What is hope? A. Hope is the blossom of happiness. Q. What is the difference between hope and desire? A. Desire is a tree in leaf, hope is a tree in blossom, enjoyment is a tree in fruit. Q. What is gratitude? A. Gratitude is the memory of the heart. Q. What is time? A. A line that has two ends—a path that begins at the cradle, and ends in the grave. Q. What is eternity? A. A day without yesterday or to-morrow; a line that has no end. Q. Does God reason? A. Man reasons, because he doubts; he deliberates, he decides: God is omniscient: He never doubts; He therefore never reasons.”

Most of these answers, it will be perceived, are highly figurative. But the deaf and dumb generally avoid figurative language: their compositions are usually eminently literal: they readily detect resemblances, and frequently employ comparison; but they very rarely personify. In this respect, therefore, Massieu was singularly distinguished from the rest of his class.

In the course of his first volume, Dr. Kitto has several remarks on the sign-language, and on the finger-alphabet; of which latter he gives an engraving, which, like most of those which we have seen, is inaccurate, differing in several particulars from that in actual use in these countries: even that furnished by Dr. Watson, in his book on the deaf and dumb, is not strictly correct, as a pictorial representation of what he himself employed:—the fault, no doubt, was that of the engraver. In Dr. Kitto's book, the vowels are formed on the wrong hand; and the *f*, the *j*, and the *x*, are not of the forms generally used in England: the *v* too, though sometimes employed in his way, should be abolished, for the sake of perspicuity, and replaced by that of the London Asylum, which is represented by the two fore-fingers, united at the knuckle, to form an angle: this letter is, by mistake, omitted in Dr. Watson's book. Dr. Kitto complains of the indistinctness of some of the formations:—those of the vowels especially:—“ it is exceedingly difficult,” he says, “ for the person addressed to be sure which of the two neighbouring fingers representing different vowels, has been touched.” But we think none but a beginner would give occasion for this ambiguity: every expert dactylologist advances the proper vowel finger of the left hand, to meet the forefinger of the right. With respect to the language of gesticulation, of which, of course, Dr. Kitto has no need, we may here suggest, what has often occurred to us, that advantage might accrue in many ways from engaging a hearing person, skilled in this mode of communication, to accompany our exploring expeditions. Our attempts at negotiation with semi-barbarian tribes have, no doubt, often failed from our being misunderstood, or from our misunderstanding them. When Basil Hall endeavoured to conciliate the natives of the coast of Corea,



they rejected his overtures, as he thought, by making the sign for cutting throats : a person accustomed to communicate with the deaf and dumb, by addressing them in their own way, could, in a moment, have discovered whether by this sign they threatened to be the perpetrators, or dreaded being the victims :—from their subsequent conduct, it would seem that they meant to convey the latter meaning.\* In Major Long's expedition to the Rocky Mountains, there is an account of certain tribes of aboriginal inhabitants of the country west of the Mississippi, who, though speaking different languages, readily communicate with one another in the common natural language of signs : many of these signs are described in Major Long's volumes, and they closely agree with those employed by the deaf and dumb.†

It merely remains for us to present our readers with a few brief historical notices of the origin and progress of deaf-mute instruction, and to furnish some statistical facts in reference to the deaf and dumb population, and the means at present in operation for extending to them the blessings of education.

The systematic instruction of the deaf and dumb is an art which has no very remote origin. There is reason indeed to fear that, till a comparatively recent period, this unhappy class of persons were not considered as belonging to the human family. By their parents and natural protectors they were fed, clothed, and secluded ; and when the sad term of their animal existence had expired, they were admitted to a resting place beside their more gifted fellow-mortals ; the last office performed for them being the only one in which their claims to the privileges of humanity were recognised. No recorded notice of an instructed deaf and dumb person has hitherto been discovered which refers to a period earlier than 1443. Rudolphus Agricola, who was born at this date, and who died in 1485, is the earliest who makes mention of any such case. Degerando, the most copious of the historians of the deaf and dumb, quotes from Agricola's work (*De Inventionem Dialecticam*) a passage which we here translate :—“ I have seen an individual deaf from birth, and consequently dumb, who had learnt to comprehend what was written by other persons, and who himself expressed, by writing, all his thoughts,

\* On Captain Hall proceeding to land, he says, “ This movement the natives did not seem to relish in the least, for they made use of a sign which, though we could not determine exactly to whom it referred, was sufficiently expressive of their alarm and anxiety. It consisted in drawing their fans across their throats, and sometimes across ours, as if to signify, that our going on would lead to heads being cut off ; but whether they or we were to be the sufferers, was not very clear.”—*Voyage to Loo Choo, Second Edition*, p. 11.

† We have not had an opportunity of seeing Major Long's volumes ; but an extract from them, describing the signs referred to, is given in Dr. Orpen's *Anecdotes and Annals of the Deaf and Dumb*, p. 97, Second Edition. London, 1836.

as if he had had the use of speech." But the circumstance here recorded was afterwards disputed, on account of its apparent incredibility, in a work (*De Animá*) by Louis Vives ; a fact which is in some degree a testimony to the great rarity of such an occurrence. The record, however, was sufficient to excite the attention and ingenuity of the celebrated Cardan, who was, in consequence, led to conceive the theoretical principles upon which such an event might be brought about. His views are published in his works, and, as far as they extend, are sound and judicious. Cardan lived between the years 1501 and 1576. But the Spanish Benedictine monk, Pedro de Ponce, to whom we have before referred, (page 344,) and who died in 1584, is the first instructor of deaf-mutes of whom we have any strictly authentic account. He left behind him no explanation of the theory by which he was guided ; but his practical success is distinctly acknowledged by two independent cotemporary writers, Francis Vallès and Ambrose Morales, the latter of whom, in his *Antiquities of Spain*, states that he himself had witnessed the success of Peter Ponce in this curious art ; and it is referred to by several subsequent writers, his immediate successors in point of time, as an admitted fact.

From what was thus related of Ponce, John Paul Bonet, another Spaniard, was probably induced, at a later period, to undertake the instruction of deaf-mutes. He was secretary to the Constable of Castile, who had a younger brother deaf and dumb from infancy, whom Bonet taught to speak and understand the Castilian language. He published an explanation of his method at Madrid in 1620, and this is the earliest work in existence containing a development of the principles actually employed in teaching the deaf and dumb.\* In this work, which is extremely rare, Bonet makes no mention of Ponce ; it is possible, therefore, that he may have re-discovered the art. It is certain that his plan was rational, and contained the germs of what was afterwards developed into a more perfect system. The Abbé de l'Épée was at the pains to learn Spanish for the express purpose of making himself acquainted with the principles expounded by Bonet ; of which principles a sufficiently full outline may be seen in the quotations given in the work of Degerando. There can be no question that it is to Bonet and his pupil that Sir Kenelm Digby refers in the following passage :—

" There was a nobleman of great quality that I knew in Spaine, the younger brother of the Constable of Castile. He was born deafe, so deafe, that if a gun were shot off close by his eare, he could not

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\* It is recorded in the *Antiquities of Spain*, referred to above, and which appears to have been written about 1583, that Pedro de Ponce taught two brothers and a sister of the Constable of Castile, all born deaf and dumb. Bonet, it seems, first practised the art on a brother also of the Constable, who had lost his hearing in infancy. This must have been a most unfortunate family.

heare it, and consequently, he was dumbe ; for not being able to heare the sound of words, he could never imitate nor understand them. . . .

. . . . At the last there was a priest who undertooke the teaching him to understand others when they spoke, and to speake himself, that others might understand him. . . . They who have curiosity to see by what steps the master proceeded in teaching him, may satisfie it by a booke which he himself hath writ in Spanish upon that subject. . . . The priest, I am told, is still alive, and in the service of the Prince of Carignan, where he continueth (with some that have need of his paines) the same employment as he did with the Constable's brother, with whom I have often discoursed."—*Sir Kenelm Digby's Treatise on the Nature of Bodies*, p. 307-8. London, 1645.

After Bonet, and before the time of our celebrated countryman, Dr. John Wallis, several writers appear, but only as *writers*, on the theory of this art. But Wallis seems to be the person next in the order of time after Bonet, who successfully engaged in the actual work of deaf-mute instruction, unless indeed we except Dr. Holder, rector of Blechingdon, in Oxfordshire, between whom and Dr. Wallis there was a somewhat warm dispute on the subject. Wallis, in 1653, published, in Latin, a Grammar of the English language, for the use of foreigners, prefixed to which was a tract explaining the mechanism of articulate sounds. In 1669, Dr. Holder published his "Elements of Speech, with an Appendix concerning persons Deaf and Dumb," and in which he describes the methods by which he had enabled a young gentleman named Popham, born deaf and dumb, to speak. This, he states, was effected at his house at Blechingdon in 1659. At the time Wallis published his Grammar, it does not appear that he had actually applied his principles in deaf-mute instruction. This, however, he had certainly done so early as March 1662 ;\* and, when afterwards referring to these early labours in his letter to Dr. Beverley, bearing date September 30, 1698, and printed in the Philosophical Transactions of the October following, he claims the above-mentioned Mr. Popham as his own pupil, and declares, that that gentleman acquired his ability to speak from him. The particulars of the dispute between Wallis and Holder, into which we, of course, cannot here enter, will be found in

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\* It appears, from the letter to Beverley, that Mr. Whaley was Wallis's first pupil. Fortunately, Wallis has recorded the date of his first entering on the task of teaching the deaf and dumb, viz., January 1662, as appears by his letter to Boyle, under the date March 1662, and printed in the Philosophical Transactions for July 1670. We cannot, therefore, see any just ground for thinking, with Dugald Stewart, that Wallis was at all indebted to the ingenious George Dalgarno, whose work on the deaf and dumb (*Didascalocophus*) was not published till 1680. There can be no doubt, however, that this long-neglected author was the first who devised a manual alphabet for the deaf and dumb. His contrivance, which is considerably different from that in present use, is figured in the *Penny Cyclopædia*, article *Dactylology*.

the works referred to below.\* It is certainly very probable that Holder had taught Popham before he came under the care of Wallis, at which time he might have forgotten Holder's instructions. But we see that priority of publication on the subject of deaf-mute instruction clearly belongs to Wallis, who, previously to Popham, had taught another deaf person to articulate (Whaley); but this pupil did not lose his hearing till he was about five years old.

We have here recorded the names only of those who are known to have practically engaged in the undertaking of teaching the deaf and dumb to speak and understand a language; but there is an English writer on this subject whose book must take precedence of the publications just noticed. This was John Bulwer, whose "*Philocophus*, or, the Deaf and Dumb Man's Friend," bears date 1648. This book, which we have never seen, is stated to teach nothing about articulation, and to be confined to the methods of instruction by gesticulation, the manual alphabet, and the movements of the lips.† It does not appear that Bulwer ever reduced his principles to practice. Several publications besides that of Bulwer appeared during the early part of the seventeenth century, on the theory of deaf-mute instruction, most of which, however, unlike that of Bulwer, were chiefly devoted to articulation and the mechanism of speech. They cannot be considered as having in the slightest measure advanced the art beyond the degree of perfection to which it had been brought by Ponce and Bonet. Indeed, nearly all of these writers seemed to think, that by imparting speech they conveyed language, when, in reality, they were only forming articulating machines. There can be no question that, after the two early instructors just mentioned, Wallis is the first person to whom we are indebted for clear and rational views on the instruction of the deaf and dumb. Amman, a Swiss physician, settled in Amsterdam (1669-1724), to whom these views were known, though perhaps entitled to rank next, was nevertheless far inferior to Wallis as to the soundness and rationality of his principles. Like the writers alluded to above, he imagined a sort of mysterious virtue in articulation, by which, independently of any principle of association, ideas became excited in the mind; he did not, however, depend wholly upon this obscure influence, but taught his pupils to read and write; though we are bound to record, notwithstanding the high value which, at a much later period, the Abbé de l'Épée set upon

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\* "A Supplement to the Philosophical Transactions of July 1670; with some Reflections on Dr. Wallis's Letter there inserted. By W. Holder. 1678."

† "A Defence of the Royal Society, in answer to the Cavils of Dr. W. Holder. By Dr. Wallis. 1678."

† Degerando tried in vain to procure this book. Some copious extracts from it, however, are to be found in an anonymous work, entitled, "*Vox Oculis Subjecta*," which was published in London in 1783. This latter is one of the very few works on the subject with which, it appears, Degerando was unacquainted.

the method of Amman, that, from the admixture of these superstitious notions in reference to articulation, that method was very much inferior to the plain and judicious proceeding of Wallis, and much less calculated to issue in complete practical success as respects the real intellectual development of the pupil's powers.\*

It must not be inferred from these observations, that we think lightly of articulation as a necessary part of every perfect system of deaf-mute instruction. We are, on the contrary, convinced—and for reasons sufficiently explained by the late Dr. Watson—that articulation must form an important item in every such system; and we deeply regret to find the neglect of it so general in the institutions for the deaf and dumb at present established in these countries, and in America. We cannot but express our deliberate conviction, that, in consequence of this neglect, but a part only of the good work is accomplished, and we fear, in many cases, a positive injury is inflicted. Several children admitted into such institutions will always be found to retain more or less of the faculty of speech, possessed in infancy, but partially lost with their hearing. These are not congenitally deaf; and, up to their admission, were never wholly dumb: but, lamentable to say, *they are often made dumb* in the very asylums established for their relief! This is no imaginary case: we speak from actual observation, and we have personal knowledge while we write this, of children who could once articulate, gradually losing this power, and lapsing into confirmed dumbness! But we must recur again to this important matter in the sequel.

Our space does not admit of our adverting to the numerous writers on the instruction of the deaf and dumb, who fill up the interval between Amman and de l'Epée. The curious on this subject will find ample details in reference to this period in the erudite volumes of Degerando. We have dwelt a little more than we otherwise should have done upon Wallis, because the industrious historian of the deaf and dumb just mentioned has committed a chronological error in reference to Wallis's writings. He uniformly places the date of Wallis's first publication on the subject—his Grammar—at 1753, instead of 1653. This we should have concluded to be a press error, but the same date is repeated.† Wallis died in October 1703, at the age of 88.‡

\* Amman published an account of his method at Amsterdam, under the title of "*Dissertatio de Loquela*," 1700. Some extracts from it are given in "*Vox Oculis Subiecta*," before referred to.

† *Degerando de L'Éducation des Sourds-Muets*.—Tom. 1, pp. 330, 332.

‡ Degerando is peculiarly unfortunate in his dates to Dr. Wallis's productions. One of his references is to the Philosophical Transactions, containing "une Lettre du Docteur Wallis, 1778."—*Degerando*, Tome 1, p. 333.

The Abbé de l'Épée may be considered as the father of the institutions for the education of the deaf and dumb; his enthusiastic benevolence, and untiring exertions in his arduous task, are beyond all praise, and the world owes to his memory an eternal debt of gratitude. But we cannot commend his system. He had unfortunately contracted the notion, that the proper way of teaching the deaf and dumb, was first to supply them with a copious system of artificial signs, constructed in conformity to the genius and idiom of spoken language. This was his great error. He exercised much labour and ingenuity in practically carrying out his view, but his system of methodical signs, however indicative of his ardour and originality, must have had the effect of most unnecessarily complicating his process of teaching, and consequently of impairing his success. It is useless here to discuss its defects; they are now pretty generally acknowledged, even in the country that was the scene of his long period of labour; and his methodical signs are, we believe, at present universally abandoned. The impetus, however, which this distinguished man gave to public feeling on behalf of the deaf and dumb on the Continent, was such as to awaken a very general interest in their behalf; and shortly after his death, the school which he had established in 1760, and on which he had expended the greater part of his patrimony, was taken under the protection of the state; and was elevated to the rank of a national establishment in 1791, by Louis XVI., under the title of "l'Institut Royal des Sourds-Muets de Paris." The direction of this establishment was committed to the Abbé Sicard, a disciple of de l'Épée; and who had formerly presided over a school for deaf-mutes at Bordeaux. Sicard inherited the zeal and devotedness of his master: he was too judicious, however, and self-dependent to follow implicitly his methods; and, consequently, succeeded in producing several highly educated pupils. Still he cultivated the system of methodical signs introduced by his predecessor, which, with much labour, he modified and considerably enlarged. He published the results of his ingenuity in this way in two volumes, entitled, "Théorie des Signes pour l'Instruction des Sourds-Muets. Par R. A. Sicard. Paris, 1808." But how this voluminous dictionary of gesticulations could assist him in the practical business of teaching language we cannot well conceive. He had previously published (in 1800, and again in 1803) a "Cours d'Instruction d'une Sourd-Muet de Naissance," giving an account of his mode of proceeding with Massieu, before referred to, (p. 345,) and containing some valuable remarks and suggestions, mixed up, however, with a good deal of metaphysical mystery. Of his system as a whole we may say, with Dr. Watson, that we "most approve of it where it most differs from that of his predecessor."

And we believe the continental teachers now pretty generally unite in the same sentiment; and base their instructions principally on the natural signs of the deaf and dumb.\* There is no doubt, however, that, in the process of instruction, every judicious teacher will seek to enlarge this basis, by the introduction of new signs, more or less purely conventional; but to frame these in reference to the grammatical laws or peculiar idioms of spoken language, seems to us to further complicate a task already sufficiently difficult. If signs can be devised to convey the impression of *things*, whether outward objects or inward thoughts and feelings, instead of representing unknown *words*, their invention is useful, as a temporary means of communicating language; they should be gradually discountenanced and thrown aside as language is acquired to supply their place.

It should, however, be remarked, in reference to these conventional signs, that the proficient in gesticulation, by blending with them, as far as possible, appropriate expressions of countenance, will generally succeed in imparting a degree of natural character even to them. Expertness, grace, and facility of invention in the language of signs, are qualifications of great importance in a teacher of the deaf and dumb, but to be acquired only by long experience; and where the requisite tact and address in gesticulating is wanting in the instructor, the pupils, who are always keenly alive to deficiencies of this kind, will seldom entertain towards him a very high degree of deference.

It seems to have been in accordance with the above views that Mr. Thomas Braidwood conducted his school at Edinburgh, beginning with a single pupil, in 1760,† which was the first establishment of the kind in these countries. It is referred to with much commendation, both by Dr. Johnson, in his *Journey to the Western Islands of Scotland*, and by Lord Monboddo, in his “*Origin and Progress of Language*.” Dr. Johnson could not resist the temptation, which the occasion of his visit to this school afforded, to indulge in his usual vein of sarcasm:—“After seeing the deaf taught arithmetic, who would be afraid to cultivate the Hebrides?” It was in this academy that the late Dr.

\* Speaking of the Paris sign for “Jamais,” M. Bebian says, “Je ne tiens pas compte du signe employé à l’Institution de Paris, parce qu’il est tout-a-fait arbitraire, et n’a aucun rapport à l’idée.”—*Bebian; Manuel d’Enseignement pratique des Sourds-Muets*. Tome 2, p. 149. Paris, 1827. In connexion with this quotation it is proper that we add the following from the present instructor of the Paris Institution. “Le système des signes méthodiques, dont on a reconnu depuis longtemps l’inutilité, et même les inconvénients dans l’enseignement, et qu’ on abandonne chaque jour davantage,” &c. &c.—*M. D. Ordinaire. Essai sur l’Education d’un Sourd-Muet*. P. 222. Paris, 1836.

† *Vox Oculis Subjecta*, p. 196. London, 1783.

Watson was trained;\* and when the first public institution in Britain—the Asylum for the Deaf and Dumb, Kent Road, near London—was opened, in November 1792,† the direction of it was committed to his care. He was an indefatigable and most judicious teacher: he produced no prodigies, and was averse to public display; but, as his method of teaching was based upon the enlightened principles of Wallis, systematized and perfected by his own close observation and active experience, he produced scholars not to be surpassed by those from any institution in the world. He has been charged—most inconsiderately and unjustly charged—with a narrowness of spirit totally foreign to his nature—with a disposition to conceal from others the secrets of the art so successfully practised by himself.‡ He candidly told every applicant for initiation into the mysteries of his profession, that, to become properly qualified teachers, they must acquire the necessary knowledge by a personal observation of the methods he employed; and he cheerfully threw open his school, and unreservedly unfolded the practical operations of his system, to all who chose to avail themselves of it. It was too much to expect—occupied as he was, without even the Sabbath at his command, for it was no “day of rest” to him—it was too much to expect that he should undertake to convey, by written correspondence, what practice alone could effectually teach. The Abbé de l’Epée was misrepresented—so was he: and we are glad to have had this opportunity of removing, as far as we can do so in a few words, an injurious stigma from a memory which future generations, in common gratitude and in common justice, are bound to revere. He died in 1829, in the establishment which had been the scene of his unwearied labours for thirty-seven years, during which period he had communicated the blessings of education to more than 1000 of the deaf and dumb.

We have now completed our historical sketch; in which, from the condensation that has been incumbent on us, we have, we are aware, omitted many honourable names. The brief reference just made to the London Asylum, one of the few institutions in which articulation is earnestly cultivated, reminds us of our promise at page 351, to say a word or two on that important branch of deaf-mute instruction.

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\* Watson's *Instruction of the Deaf and Dumb*; Preface, p. xxiii. London, 1809

† Ibid. p. xxix.

‡ The animus of the following statement it is easy to perceive:—“Mr. Galaudet carried on a correspondence with the Committee of the Asylum for the instruction of the deaf and dumb, soliciting from them and the instructor the communication of that knowledge of which he was in quest. This was denied him, except on the condition of his continuing *three years* an usher in the asylum, instructing one of its classes daily; terms which he declined accepting.”—*North American Review*, vol. vii., p. 123. Boston, 1818.



Dr. Itard of Paris, after diligent inquiries into the subject, has been led to divide deaf-mutes into five classes, in reference to the different degrees of audition possessed.\* He finds that there are only one-fifth totally deprived of the ear; that two-fifths can distinguish sound from silence, but confound speech with other noises; and that the remaining two-fifths hear more or less distinctly. His general conclusion is, that one-tenth of the entire deaf-mute population, by properly cultivating the hearing thus imperfectly possessed, might be restored to society, and attain to the advantages of social communications by hearing and speech; and that all to whom any sense of hearing remains might, by similar cultivation, considerably improve their condition. These inferences may perhaps be somewhat too sanguine; but, from the observed facts on which they are based, we think we may fairly draw the conclusion, that a considerable number of the deaf-mute population, thus possessing more or less of the faculty of hearing, must have once spoken, and must still retain the memory of articulate sounds. But the researches on the subject, undertaken by the directors of the Royal Institution for the Deaf and Dumb at Paris, are more explicit on this point. From the fourth circular issued by that establishment we learn the following particulars:†—

Of 149 pupils in the Paris school, it has been ascertained that 119 are congenitally deaf, and that the remaining 30 lost their hearing at different periods during infancy. Of these 30 the details are as follows:—

3	lost the hearing during the first year.
11	..... second.
7	..... third.
4	..... fourth.
3	..... fifth.
2	..... sixth.

So that, rejecting those belonging to the first two classes, there can be no doubt that 16 of these 149 children must once have been tolerably familiar with spoken language. Other institutions, where similar investigations have been undertaken, and like records kept, confirm these results. From the statistical returns of the deaf-mute population of the kingdom of Belgium for 1835, it appears that the ratio of the congenitally deaf to the whole population is 1 in 2791; and the ratio of those who have lost the sense of hearing after birth is 1 in 10,177; the ratio of the deaf and dumb of both classes to the whole population being

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\* *Essai sur l'Education, &c., par M. Désiré Ordinaire, p. 224. Paris, 1836.*

† *Quatrième Circulaire de l'Institut Royal des Sourds-Muets de Paris, p. 242. Paris, 1836.*

1 in 2180\*—a small number as compared with some other countries: so that here, as above, between one-fourth and one-fifth of the entire deaf-mute population once heard. A much larger proportion than this occurs in some of the British institutions. Thus:—From the records of the Doncaster Institution for the Deaf and Dumb—an establishment conducted with great ability and success by Mr. Charles Baker—it appears that, “out of 102 children, whose parents furnished the required information, 52 were born deaf, 37 became so after birth, and of the remaining 13 no positive information could be obtained.” Of the 37 who became deaf after birth, the following particulars are furnished:—“7 lost their hearing during the first year, 13 in the second, 7 in the third, 1 in the fourth, 5 in the fifth, and 4 in the eighth.”†

These are important and impressive facts. They supply strong practical arguments in favour of cultivating articulation in all establishments for the deaf and dumb. The ear is paralyzed, but the organs of speech remain unimpaired; and the memory of articulate sounds is still retained. Why, since the thing is perfectly practicable—why should not these organs be again stimulated to their wonted activity, and this memory of their functions fostered and kept alive? Even the congenitally deaf can all be taught the mechanical formation of vocal sounds with the most perfect accuracy; and the only argument that can be advanced against imparting to them this power is, that, for want of the ear to modulate those sounds, their utterance, though thus mechanically perfect, is often harsh and monotonous. Yet, to those with whom they habitually associate—to their parents and immediate friends—they are abundantly intelligible; and we are confident that Mr. Watson, the very able and enlightened instructor of the London Asylum, who cultivates articulation in all his pupils with a degree of assiduous perseverance that is beyond all praise—we are confident that he perfectly understands the vocal communications of every one of the 297 deaf children by whom he is at present surrounded. Surely it is worthy of consideration, that persons in this condition are more especially exposed to danger than those in possession of all their faculties: of what importance may it not be to them, in such circumstances, to be able to call for “help,” or to give alarm of “fire”? And of how much greater importance may it not be, on the dying bed, for the poor deaf sufferer, when his physical powers are prostrated, and the ability to gesticulate exhausted, to be able,

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\* Quatrième Circulaire de l'Institut Royal des Sourds-Muets de Paris, p. 221. Paris, 1836.

† Penny Cyclopædia, Article Deaf and Dumb, p. 323.

however feebly, to give articulate utterance to those thoughts and feelings which, at that awful crisis, must more or less agitate the bosom of every enlightened human being!

But we need not theorize on this momentous subject. We are fortunately in possession of a very valuable fact, which will effect more in the way of urging general attention to it than any arguments of ours. Mr. Watson has kindly placed at our disposal the following letter from the Rev. J. A. Rhodes of Leeds, which, though of course never intended for publication, we here insert without comment:—

(Copy.)

*Horsforth Hall, near Leeds, 26th August 1842.*

SIR—I beg to inform you that Miss Armitage, of East Parade, Leeds, died on Sunday last. Her name must therefore be withdrawn from your list of subscribers.

She was born deaf and dumb; but, by great attention, could understand whole sentences by observation of the lips of the speaker; and could *speak* whole sentences so as to be understood.

This faculty was of the greatest value during her later life, and especially during her sickness, as she could not then make use of her *fingers*.

I venture to press this matter upon your consideration, as one of the utmost importance in the teaching of the deaf and dumb.

This faculty was acquired at a *very late period in life*. She died at eighty-two and a half, and it has been principally obtained within the last five years. During the former part of her life she used the alphabet of the fingers.

I am, Sir, yours very respectfully,

J. A. RHODES.

*T. J. Watson, Esq.,*

*Asylum for the Deaf and Dumb, London.*

Of the many institutions in the United Kingdom, in which articulation forms no part of the system of instruction, we believe that there are one or two, the conductors of which are favourable to its introduction; and who reluctantly omit it from insufficiency of funds: since in large establishments an additional assistant or two would unquestionably be necessary, inasmuch as articulation can be efficiently taught only by individual instruction. We are glad to find so good a teacher as Mr. Baker of Doncaster among this small number,\* and we earnestly hope that the like

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\* "The conductor (of the Doncaster Institution) is favourably disposed to articulation wherever the vocal organs are flexible, and the pupil shows no inaptness for its acquirement. No acquisition can be more useful if the speech can be made intelligible."—*Quarterly Journal of Education*, vol. vii. p. 198.

favourable feeling may spread among teachers, as it assuredly must, if the many advantages of articulation to the deaf be fairly and fully considered. The lady, whose case we have recorded above, was, it seems, dumb for seventy-seven years; and yet, after that long period of total inaction of the organs, they were, by dint of persevering effort—providentially suggested—brought into sufficient activity to become the exponent of her hopes and feelings on her death-bed. It is wisely and mercifully ordered, that the faculty of speech, when once possessed, is generally the last totally to leave us; so that, even when the limbs have become rigid in the very grasp of death, the lips will still move, and the tongue still falter forth the parting accents of hope and peace.

We shall terminate our remarks on this interesting subject by offering a few statistical facts which have been collected with great care;\* and which will help to show the extent and general prevalence of deafness, more especially of congenital deafness; which, we shall see, sometimes prevails in the same family, and in collateral and remote branches of the same family, to a fearful extent.

The proportion of the deaf and dumb to the entire population has been found to be 1 in 1585, in the following countries: viz. Portugal, Spain, France, Italy, Austria, Saxony, G. Duchy of Saxe Weimar, Principality of Lippe Schaumburg, Hanover, Duchy of Oldenburg, Frankfort, Hamburg, Bremen, Sweden, Norway, Russia, Poland, and Great Britain. In Switzerland, the average proportion is about 1 in 500; a proportion which considerably exceeds that furnished by any other country, except the Grand Duchy of Baden, which numbers 1 in 559. In different districts of Switzerland, the prevalence of the calamity very much varies; and even in different parishes of the same canton. In some places, (as the Vallais,) the proportion is 1 in 328 of the inhabitants; in others, (Peterlingen,) 1 in 244; and in others, (Moudon,) 1 in 153; whilst, in the commune of Weyach, in the canton of Zurich, the proportion of deaf and dumb is so great, as to amount to 1 in 63 of the inhabitants. In this single canton there were (in 1832) nineteen families, in each of which two of the members were deaf and dumb; two families, in each of which there were three deaf and dumb; and one family with four deaf

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\* Chiefly by the active exertions of the Paris Institution for the Deaf and Dumb, which has for several years taken upon itself the laborious duty of collecting information respecting the deaf and dumb from all parts of the world, and which it again disseminates, in a systematically arranged form, in occasional publications, under the title of "*Circulaires de l'Institut Royal des Sourds-Muets de Paris*." Its well-directed efforts deserve the highest commendation from all the friends of the deaf and dumb.

and dumb. The causes of the extraordinary prevalence of deaf-mutism in Switzerland—whatever they be—must be allied to those which occasion goître; as it is among the goïtred population, and the children of goïtred parents, that the affliction so greatly abounds:\* but not only the ear, but the brain, and the animal functions generally, seem to be greatly impaired in this unhappy community. “The features,” says Carné, “are those of an idiot, with sometimes a wildness and even ferocity. We observed one of them stretched at length in a field, uttering hideous cries, for the faculty of speech is also denied, and unable to rise till some of the family came to help him.”†

In the United States of America, the proportion of deaf-mutes to the whole population is—for the *white* community, 1 in 1964; and for the *black*, 1 in 3134. The result of the statistical inquiries that have been thus instituted in so many parts of the world is, that there must be more than 546,000 deaf mutes at present in existence!

The remarkable prevalence of deaf-mutism in families deserves especial notice. From the records of the Paris Institution we extract the following: One of the deaf-mutes (congenitally deaf) has a maternal grandmother affected with the same infirmity: another, who lost the sense of hearing at the age of four years, is the child of a father who became deaf at the age of seven years. In a family, containing seven deaf-mutes out of ten children, the father had an aunt who was congenitally deaf: in another family, where there are two deaf-mutes, the sister of the father married the brother of the mother, and has five male children, of which three were born deaf. But the most painfully interesting record of facts, testifying to the prevalence of this great affliction in individual families, that has perhaps ever been published, is that which we now present to our readers, from the documents of the London Asylum. We have selected from these documents sixteen families; numbering in the whole 100 children, out of which it will be seen that the appalling number of 71—nearly three-fourths of the whole—are deaf and dumb!

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\* Some of the deaf and dumb in Great Britain are found to be afflicted with goître: three or four such cases have come under the observation of Mr. Watson of the London Asylum; and several others have been noticed by Mr. Baker, of Doncaster. Scrofulous affections are very common among the congenitally deaf.

† Letters from Switzerland and Italy, p. 217. London, 1834.

Name.	Parent's Occupation.	No. of Children.	No. Deaf and Dumb.
Elizabeth Dixon	Small farmer	1	1
Wm. J. George	Orphan	1	1
Edward Walsh	Labourer	5	3
Mary Aldum	Broad-cloth weaver	12	6
James Cousens	Labourer	8	5
Geo. Franklin	No father	8	5
Silas Perkins	Labourer	7	5
Thos. Barnes	Cobbler	6	5
Elizabeth Cherry	Watch-finisher	7	4
Wm. Cockton	No father	6	4
Joseph Stephens	Excise officer	5	4
Susannah Rye	No Father	3	all 3
Eliza Fox	Parents both dead	3	all 3
James W. Kelly	Porter	8	7
Mary Martain	Labourer	10	7
Alice Wright	Frame-work knitter	10	8
Total		100	71 !

In certain parts of the continent of Europe, the deaf and dumb are provided with the means of education at the expense of the State. The sovereign of Denmark decreed that "every deaf and dumb infant born in the kingdom shall receive the education necessary to make him a useful member of society." In Belgium, too, it has been enacted: that every deaf and dumb and blind person shall be, in like manner, instructed at the expense of Government: and such is also the case in several of the United States. In Great Britain and Ireland, we believe there are fourteen or fifteen institutions of this kind; supported, however, by public contributions. Such establishments are now spread all over the civilized world:—they are to be found in Russia, in the Brazils, and in Calcutta. In the London Asylum there are congregated more than 300 deaf persons, of which number 297 are at present under instruction! What a mighty assemblage of unfortunates!\* The director of that noble establishment teaches all these to speak. To the name and office, he unites the talents, perseverance, and well-earned reputation, of his distinguished predecessor. We hear little or nothing of him or his immense

\* The total number of deaf and dumb children admitted into the London Asylum from its commencement in November 1792 up to Midsummer 1846 is 2074. It is the largest establishment of the kind in the world.

charge, from either press or platform : he laboriously and successfully prosecutes his great work without parade, and without ostentation, contented to be known only by the happy results of his labour, as manifested in the multitude of human beings whom he has been instrumental in restoring from mental and moral "darkness to light, and from the power of Satan unto God."

In the Dublin Institution there are at present 99 children under instruction : and here likewise, there is a case parallel to that which we have recorded above—a child, who is one of *eight* deaf and dumb in the same family. There is also here another case, if possible, still more afflictive : it is that of a child who is one of *SEVEN* children deaf and dumb, *TWO* of whom are also *BLIND* !\* But we must close these painful details ; and, in conclusion, have only one or two further remarks to offer.

The writer of this paper thinks it right to state, in order that the sentiments he has here delivered in reference to deaf-mute instruction, more especially as respects the subject of articulation, may not be misconstrued—that he is not in any way connected with an establishment for the deaf and dumb : he has long felt a deep interest in such establishments, and has paid some attention to their practical operations ; but he has not the slightest professional interest whatever in either the adoption or the rejection of any of the views he has here unfolded. Long observation has fully convinced him of the great practical benefits, both direct and indirect, resulting to the deaf from the possession of articulation ; and he will rejoice, if what he has here stated, as the convictions of experience, have any influence in inducing the enlightened and benevolent to inquire into the matter. A visit to the London Asylum, will at once afford conclusive evidence of what great success may be attained in this department of deaf-mute instruction.

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\* We are not acquainted with more than one other instance of such a calamity as this occurring in the same family. In the year 1817, there were two brothers in Belfast, both deaf, and dumb, and blind : they were born deaf and dumb ; but did not become blind till they had both arrived at maturity : their friends could not assign the cause. See Dr. Orpen's *Anecdotes and Annals of the Deaf and Dumb*, p. 360. The affliction of blindness, in conjunction with deaf-mutism, is by no means so unusual as formerly supposed. There was a case of this kind, a few years ago, in the Ulster Institution for the Deaf and Dumb, and the Blind : the boy died. There is also a case of the kind at present in Rotherhithe Workhouse, near London, and there was recently one in the Glasgow Asylum for the Blind. The two American girls thus afflicted, Julia Brace and Laura Bridgman, have often been publicly noticed : the latter is at present under the judicious care of Dr. Howe, principal of the Asylum for the Blind at Boston. Some account of her will be found in Mr. Dickens' "American Notes," and a much more ample and interesting one in a "Memoir of Laura Bridgman," drawn up, we believe, by James Shaw, Esq., the indefatigable honorary secretary of the Ulster Institution.

It may be proper to add, that where articulation is not taught, twenty pupils is the very largest number which ought to be committed to the charge of one assistant: if articulation is to be communicated, he should not have more than sixteen.\*

There is very much required—what may be called a literature for the deaf and dumb—a set of progressive lesson-books, adapted to the different stages of their advancement. Dr. Watson made a commencement in this way; Mr. Baker has added some useful little books, and Mr. Gallaudet, and Mr. Peet of America, have both been very successful in furthering this object. “The Child’s Picture Defining Book,” of the former, and the “Elementary Lessons for the Deaf and Dumb,” of the latter;† both deserve especial commendation: but a great deal in this direction still remains to be accomplished.

It would be well, too, if institutions in general kept more ample records in reference to the several cases coming under their observation; not merely as respects the information collected when the children enter, but also the results of experience during the five years: thus—it would be interesting to know, even in a physiological point of view, whether, upon the whole, the congenitally deaf, or those who have lost their hearing after birth, are the more easily taught; that is, which of these two classes exhibits the greater natural capacity. From Mr. Watson’s observations on this point, extending over a long period, and comprehending a very large number of cases, the inference is, that the congenitally deaf are, in general, more acute, and acquire knowledge with more facility, than those who have become deaf from disease or accident. It would also be interesting to learn, whether pulmonary consumption prevail less in those institutions where speech is cultivated, than in those where it is not.

The period allotted to the instruction of each child, is the same in all the British institutions—five years. On the Continent, most institutions allow six years, and some even eight. Five years should certainly be regarded as the minimum; but we are not advocates for a very much longer period. It is *after* the child leaves school, and mixes in society, and not *before*, that the advantage of his peculiar education fully develops

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\* If the phonetic mode of writing were to be generally adopted, it would greatly assist the deaf and dumb in acquiring articulation, as their principal difficulty arises from the orthography of our language, so ill representing the vocal sounds of the words. The blind, also, would reap advantage from the same mode of writing.

† We would earnestly recommend this useful little Work to the attention of teachers of the deaf and dumb: its title is, “A Vocabulary and Elementary Lessons for the Deaf and Dumb. By Harvey Prindle Peet, Principal of the New-York Institution for the Instruction of the Deaf and Dumb. New-York, 1844.”



itself: and we think it but justice towards the different institutions for the deaf and dumb, to state, that but an inadequate estimate will be formed of their value, if judged of by the ordinary proficiency of the inmates at the end of their five years. To ascertain accurately the good that has been done, the recipients of that good should be conversed with after having been two or three years in society, which will effect more for them than twice that additional time at school.

Before concluding this paper, we must say a few words in reference to the blind; but the space we have already occupied precludes our entering into details.

No special means of education was provided for this class of persons, till the year 1784, when the first institution for their instruction, by the aid of books printed in relief, was established in Paris, by M. V. Haüy.\* It was soon discovered, indeed, that the blind were much less in need of any peculiar system of education than the deaf. The blind could avail themselves of the eyes of others, in the cultivation of their minds; while, to the deaf, the ear of the most devoted friend was of not the slightest advantage in this way. And, accordingly, in the many instances on record of highly informed blind persons, the eyes of those who see have, to a great extent, supplied the place of all other adventitious aid. We do not see the propriety of the usual custom of placing the names of Milton and Euler on the list of such instructed blind persons. Milton enjoyed his sight till he was about forty-six, and had already laid the foundation of his fame; and Euler, who did not lose his sight till near the age of sixty, had acquired an extent of reputation, that was scarcely increased by his subsequent performances.† We consider the amiable and accomplished blind poetess of Stranorlar (Miss Brown) as a far more remarkable instance of the triumph of genius and perseverance over extraordinary obstacles, than is presented by either of those distinguished persons.

It is plain, that the only way in which the moral and intellectual condition of the blind can be permanently benefited, and by which they may be rendered, in any considerable degree, independent of the casual and precarious assistance afforded by the eyes of others, is to provide them with a permanent literature; that is, with books printed in characters palpable to the touch.

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\* *Essai sur l'Instruction des Aveugles: Par le Docteur Guillié*, p. 17. Paris, 1817.

† This reputation was, no doubt, most amply sustained by his great Work on the "Theory of the Moon," published in 1772; which was wholly executed during his blindness. Euler's memory, however, was always astonishing, even from his childhood.

This is so obvious a mode of proceeding, that it must have suggested itself very early, and we accordingly find, that characters engraved on wood were employed for the blind during the sixteenth century ; but M. Haüy seems to have been the first to employ books printed for the blind, in raised characters.\* This kind of printing has, of late, occupied a good deal of attention ; and Mr. Gall of Edinburgh, and Mr. Alston of Glasgow, have both expended much industry and ingenuity on this interesting subject.† The principal objects to be aimed at, in all attempts of this kind, should, of course, be not beauty of appearance to the eye, but distinctness and permanency as respects touch. It would be a lamentable thing, if the blind once taught to read, should gradually lose this power, as their fingers become hardened by labour. We believe that Mr. Gall has, more especially, applied himself to this very important consideration. The fretted type—the last of his numerous contrivances in this way, appears to us very likely to combine the requisite qualities noticed above. We trust, however, that these benevolent efforts will not relax, till a permanent literature is firmly secured : so that no apprehension need be entertained, that the poor blind man, when he returns from his daily toil, will be precluded from the consolations of Scripture, by the necessity he is under to earn his bread by the work of his hands. In many manual occupations, surely *one* finger might, without much practical inconvenience be shielded and protected, and thus set apart and consecrated to the above sacred purpose. What a beautiful subject for an artist's pencil—a blind man reading his Bible!—and, with upturned sightless eyes and parted lips, gazing, as it were, with more than earthly vision, into the ineffable glories of his future abode :—And listening—seemingly listening, to the inspired words of Eternal Life!

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\* The Commissioners appointed to report on a Memoir, presented by M. Haüy, on the 16th of February 1785, on the means he proposed to employ in the instruction of the blind ; after noticing some inventions of others, say, that “ils reconnurent, pour être de son invention, l'impression des livres en relief.—Guillié, p. 19.

† For an account of these, we must refer to the “Historical Sketch of the Origin and Progress of Literature for the Blind,” by James Gall. Edinburgh, 1834 : as also, to an Abstract of a Communication, by Mr. Alston, printed in the Report of the Tenth Meeting of the British Association, p. 171. We believe, also, that Dr Howe of Boston, has successfully applied himself to this interesting inquiry.











