

Some account of a boy born blind and deaf : collected from authentic sources of information; with a few remarks and comments / By Dugald Stewart ... From the Transactions of the Royal Society of Edinburgh.

Contributors

Stewart, Dugald, 1753-1828.

Publication/Creation

Edinburgh : Royal Society of Edinburgh, [1815]

Persistent URL

<https://wellcomecollection.org/works/vduc6rq3>

License and attribution

This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.



Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>



99806/c

SOME ACCOUNT

OF A

BOY BORN BLIND AND DEAF

TOLD TO US BY HIMSELF, AND BY OTHERS OF INFORMATION

WITH A

VIEW OF HIS PRESENT SITUATION

BY

JOHN STEWART, Esq. F.R.S. &c.

LONDON

Printed by

JOHN STEWART, Esq. F.R.S. &c.

at the ...

SOME ACCOUNT
OF A
BOY BORN BLIND AND DEAF,
COLLECTED FROM AUTHENTIC SOURCES OF INFORMATION;
WITH A
FEW REMARKS AND COMMENTS.

BY
DUGALD STEWART, Esq. F. R. S. EDIN.

FROM THE
TRANSACTIONS OF THE ROYAL SOCIETY
OF EDINBURGH.

[1813 ?]



SOME ACCOUNT

OF A

BOY BORN BLIND AND DEAF

COLLECTED FROM AUTHENTIC SOURCES OF INFORMATION

WITH A

THE REMARKS AND COMMENTS

BY

DUGLASS STEWART, F.R.S. EDIN.

FROM THE

TRANSACTIONS OF THE ROYAL SOCIETY

OF EDINBURGH



SOME ACCOUNT
OF A
BOY BORN BLIND AND DEAF,

COLLECTED FROM AUTHENTIC SOURCES OF INFORMATION ;

WITH A
FEW REMARKS AND COMMENTS.

THE Memoir which I am about to submit to the consideration of the Royal Society, relates to the melancholy history of a boy who was born blind and deaf; and who, of consequence, has derived all his knowledge of things external from the senses of Touch, of Taste, and of Smell *.

It is now considerably more than a year since I first heard of this case from my very ingenious friend Mr WARDROP, Surgeon in London; a gentleman whose scientific attainments and professional skill it is unnecessary for me to mention to this audience.

* Since this paper was read before the Society, (3d February 1812), I have been enabled, by subsequent communications, to enlarge it considerably. I have still reason to expect farther information on the subject; but various circumstances make it desirable, that so curious an article of philosophical intelligence should not be any longer withheld from the public.

ence. The information which he *then* communicated to me was extremely general ; but more than sufficient to excite all my curiosity. " I have at present (says he) a patient under my care, whose case is, I believe, *unique*. It is a boy fourteen years old, who was born *blind* and *deaf*, and of course *dumb*. His senses of touch and smell have a wonderful degree of acuteness ; for by these alone he has acquired a very accurate knowledge of external things, and is able to know readily his old acquaintances from strangers. The powers of his mind are vigorous. He is evidently capable of reflection and reasoning, and is warmly attached to his parents. He has a most delicate palate, and partakes only of the most simple food. I have couched one of his eyes successfully ; and he is much amused with the visible world, though he mistrusts information gained by that avenue. One day I got him a new and *gaudy* suit of clothes, which delighted him beyond description. It was the most interesting scene of *sensual* gratification I ever beheld *."

The first idea which struck me on receiving this intelligence was, that so extraordinary a combination of circumstances might perhaps afford a favourable opportunity of verifying or of correcting, in an unequivocal manner, some of those details in CHESELDEN's celebrated narrative, about which considerable doubts have been lately entertained, in consequence of their disagreement with the results of Mr WARE's experience †.

A

* This letter was dated October 4. 1810.

† Mr WARE's paper here alluded to, is to be found in the *Philosophical Transactions* for 1801. The argument which it has been supposed to afford against CHESELDEN (founded on the case of Master W.) has always appeared to me to prove nothing, in consequence of its aiming to prove too much. Of this patient, (a boy who was restored to sight at seven years of age, after he had been blind from very early infancy), we are told, that two days after the operation,

A repetition of such observations and experiments as CHE-
SELDEN made, would, I imagined, be greatly facilitated
by the total *deafness* of the patient in question; the judg-
ments which a blind man is enabled to form of distances
(at least of *small* distances) by the ear, approaching, in

A 2

point

operation, the handkerchief which was tied over his eyes having slipped upward, he distinguished the table, by the side of which his mother was sitting. "It was about a yard and a half from him; and he observed, *that it was covered with a green cloth*, (which was really the case), and that it was a little farther off than he was able to reach."

Mr WARE afterwards informs us, that "he held a letter before his patient, at the distance of about twelve inches, when he told him, after a short hesitation, *that it was a piece of paper*; that it was square, which he knew by its corners, and that it was longer in one direction than it was in the other."—"I then (says he) shewed him a small oblong band-box, covered with red leather; which he said was *red*, and square, and pointed at once to its four corners. The observation, however, which appeared to me most remarkable, was, that which related to a white stone-mug; which he first called a *white* bason, but, soon after, recollecting himself, said it was a mug, because it had a handle."

Of the correctness and fidelity of this statement, I have not the slightest doubt. But the only inference which can, with certainty, be deduced from it is, that the patient saw too well *before* the operation, to make his perceptions *afterwards* of any value for deciding the point in question. If he was able to recognise a *green cloth*, and a *piece of white paper*, the very moment that the bandage was removed, the degree of sight which he possessed previous to Mr WARE's acquaintance with him, *must* have been such as to furnish him with a variety of *sensations*, quite sufficient to serve as materials for an imperfect *visual language*;—a language, if not accurately significant of comparative distances from the eye, at least fully adequate to convey, through the channel of that organ, the intimation of *distance in general*, or of what BERKELEY calls *outness*;—perhaps, also, some indistinct perception of diversities of *visible figure*. The slightest, and, to us, the most evanescent shades of difference in these sensations, will, we may be assured, become in the case of such an individual, *signs* of all the various changes in the state of surrounding objects, with which they have any connection.

Having mentioned, on this occasion, the name of Mr WARE, I think it but justice to him to add, that he does not appear to me to be himself disposed to
push.

point of accuracy, very nearly to those which we are accustomed to form by means of the eye. I had once occasion to witness the precision with which Mr GOUGH of Kendal (by far the most intelligent and ingenious person, born blind, whom I have happened to meet with) guessed at the dimensions of a large room, a few minutes after he entered it. The error he committed was a mere trifle ; not exceeding what
might

push his argument against CHESELDEN so far as has been apprehended by some later writers. In the following passages, he not only seems to admit the truth of that optical principle which he has been generally understood to controvert, but even points at the same explanation which I have already suggested, of the apparent inconsistency between his own experience and that of his predecessor.

“ I beg leave (says he) to add further, that on making inquiries of two children, between seven and eight years of age, now under my care, both of whom have been blind from birth, *and on whom no operation has yet been performed*, I find that the knowledge they have of colours, limited as it is, is sufficient to enable them to tell whether coloured objects be brought nearer to, or carried farther from them ; for instance, whether they are at the distance of two inches or four inches from their eyes.

.....

“ I am aware, that these observations not only differ from those that are related of Mr CHESELDEN's patient, but appear, *on the first statement*, to oppose a principle in optics, *which I believe is commonly and justly admitted*, that the senses of sight and feeling have no other connection but that which is formed by experience ; and therefore, that the ideas derived from feeling, can have no power to direct the judgment, with respect either to the distance or form of visible objects. It should be recollected, however, that persons who have cataracts in their eyes, are not, in strictness of speech, blind, though they are deprived of all useful sight. The instances I have adduced prove, that the knowledge they have of colours is sufficient to give them some idea of distance, even in their darkest state. When, therefore, their sight is cleared by the removal of the opaque crystalline which intercepted the light, and the colour of objects is thereby made to appear stronger, will it be difficult or unphilosophical to conceive, that their ideas of distance will be strengthened, and so far extended, as to give them a knowledge even of the outline and figure of those objects with the colour of which they were previously acquainted ?”

might have been expected from the practised eye of a joiner or of an architect. It is not every operator, however dextrous in his own art, who can be expected to attend sufficiently to these collateral circumstances, or to be fully aware of the difficulty which a blind person, suddenly put in possession of a new sense, must experience, when he attempts to distinguish, in his estimates of distances, the perceptions of the eye from those of the ear or of the nostrils. Something of the same kind, indeed, or at least strikingly analogous to it, happens every moment to ourselves, in the judgments we pronounce on the beauty or deformity of visible objects, without any suspicion, on our part, how much these judgments are influenced by co-existent impressions of odour or of sound.

In consequence of this view of the subject, I had been led by the first general outline which I received of this occurrence, to indulge a hope that the peculiarities of the case might offer some facilities which had not been before experienced, for establishing by palpable and incontestible proofs, the distinction between the original and the acquired perceptions of sight; while, at the same time, the inability of the patient to answer, by speech, the queries which might be proposed to him with respect to the new world to which he had been so recently introduced, would, I conceived, by drawing the attention of those around him to other signs of a less ambiguous nature, place the results of their observations beyond the reach of controversy.—Not that, even upon *this* supposition, every difficulty would have been removed; inasmuch as intimations concerning *distance* may be occasionally conveyed to a blind man, not only by the sense of smell, but by some of those *feelings* which are commonly referred to the sense of Touch *. In observing,

* The blind man of *Puiseaux* (mentioned by DIDEROT) judged of his distance from the fire-place by the degree of heat; and of his approach to any solid

serving, accordingly, the first visual perceptions even of a patient born deaf as well as blind, some very nice attentions would be necessary for ascertaining the truth. But what proportion do these bear to the numerous and refined precautions which become indispensable, where the patient is reminded by every query which is addressed to his ear, of the distance and relative position of the questioner? Justly might DIDEROT say,—“*Preparer et interroger un aveugle né, n'eût point été une occupation indigne des talens réunis de NEWTON, DESCARTES, LOCKE, et LEIBNITZ.*”—I mention this, because, from the great degree of perfection to which this branch of surgery has been lately carried, the increasing number of such cases may be expected to multiply daily the opportunities of philosophical experiment; and it is of importance, that those who may have the good fortune to enjoy them, should be fully apprized of the delicacy and the complexity of the phenomena which they have to observe and to record*.

In giving way to these speculations, I had proceeded on the supposition, that the blindness of the patient was complete; not sufficiently attending to (what was long ago remarked by CHESELDEN) the qualified sense in which the word *blindness* is understood by surgical operators. “Though this gentleman was *blind*,” (says CHESELDEN, speaking of the patient whose case he has so well described), “*as is said of all persons who have ripe cataracts, yet they are never so blind, from that* cause,

lid obstacle, by the action or pulse of the air upon his face. The same thing is recorded of Dr SANDERSON by his successor Mr COLSON.

* For the assistance of those to whom such a subject of observation may occur, some judicious hints are suggested in the *Lettre sur les Aveugles à l'usage de ceux qui voient.*

* Dr. Rush related of two blind young men, brothers, that when they approached a post in a dark night, they were startled by the pulse of the air upon their faces, and that they could

cause, but that they can discern day from night ; and, for the most part, in a strong light, distinguish black, white, and scarlet ; but they cannot perceive the shape of any thing. Thus it was with this young gentleman." The case I have since found to have been the same, and in a degree considerably greater, with the boy who has given occasion to this memoir ; inso-much that his condition seems to have approached much nearer to that of Mr WARE's patient than to that of CHESELDEN's. " At the time of life" (Mr WARDROP observes) when this boy began to walk, he seemed to be attracted by bright and dazzling colours ; and though every thing connected with his history appears to prove that he derived little *information* from the organ of sight, yet he received from it much *sensual gratification*.

" He used to hold between his eye and luminous objects, such bodies as he had found to increase, by their interposition, the quantity of light ; and it was one of his chief amusements, to concentrate the sun's rays by means of pieces of glass, transparent pebbles, or similar substances, which he held between his eye and the light, and turned about in various directions. These, too, he would often break with his teeth, and give them that form which seemed to please him most. There were other modes by which he was in the habit of gratifying this fondness for light. He would retire to any out-house, or to any room within his reach, shut the windows and doors, and remain there for some considerable time, with his eyes fixed on some small hole or chink which admitted the sun's rays, eagerly catching them. He would also, during the winter-nights, often retire to a dark corner of the room, and kindle a light for his amusement. On these occasions, as well as in the gratification of his other senses, his countenance and gestures displayed a most interesting avidity and curiosity.

" It

"It was difficult, if not impossible, to ascertain with precision, the degree of sight which he enjoyed; but from the preternatural acuteness which his senses of touch and smell had acquired, in consequence of their being habitually employed to collect that information for which the sight is peculiarly adapted, it may be presumed with confidence, that he derived little, if any assistance from his eyes, as organs of vision. The appearances of disease, besides, in the eyes, were such as to render it in the highest degree probable, that they enabled him merely to distinguish colours, and differences in the intensity of light."

From this history of the patient's previous situation, it appeared evident that his case was not of such a sort as to afford an opportunity of bringing CHESELDEN's conclusions to the test. On the contrary, his habits of observation, and even of *experiment*, on his visual sensations, combined with the singular acuteness and discrimination of his olfactory perceptions, rendered it almost certain that the results of a successful operation on his eyes would be similar to those described in Mr WARE's paper. Such, accordingly, has, in point of fact, been the issue of this new experiment;—in describing which, however, I must remark, to the honour of Mr WARDROP, as a cautious and philosophical observer, he has abstained from drawing the slightest inference to the prejudice of CHESELDEN's statement;—a statement which nothing can disprove till a case shall occur of a patient cured of *total*, or *almost total* blindness; and till this case shall be observed and examined with all the nice precautions which so delicate and complicated a phenomenon demands.

Noting, he had indicated by the sound of the lower lip, I
which implies a peculiar & unusual reaction on his
of putting down his feet. The other is similar circumstances
he felt one eye to be colder than the other. Dr. Rogers the

I shall not follow Mr WARDROP through the details of the surgical operation ; in performing which, he was forced, by the peculiar circumstances of his patient, to employ a mechanical apparatus, for fixing his body and head in an immoveable posture. I flatter myself that he will soon communicate to the public a history of the whole case ; and I should be sorry to deprive his memoir of any part of its interest. The general results alone are connected with the objects which I have at present in view ; and *these* I shall take the liberty to state in Mr WARDROP's words.

" When the operation was finished, he expressed great satisfaction ; gazed around him, and appeared to distinguish objects. This, however, could not be ascertained in a manner quite satisfactory, as it would have been prejudicial to his recovery to make any experiments ; but it could be perceived from the change in the expression of his countenance. His eye, accordingly, being covered up, he was carried home, and put to bed in a dark room ; after which he was bled in the arm.

" On the fourth day I examined the eye accurately, and observed the state of his vision. I found that the crystalline lens (which had been pushed upwards and backwards) had altered its situation since the operation, and could be again distinguished, covering about one-fourth of the upper edge of the pupil. The other part of the pupil was quite transparent, and all the blood which was effused into the anterior chamber during the operation was now absorbed. On making trial if he could distinguish any object, he readily discovered a book, or any similar thing, placed on the coverlet of the bed ; and in many of his attempts, he seemed to judge pretty accurately of their distance.

B

" On

During the operation, I observed that the lens was pushed upwards and backwards, and that the pupil was quite transparent. I also observed that the blood which was effused into the anterior chamber during the operation was now absorbed. On making trial if he could distinguish any object, he readily discovered a book, or any similar thing, placed on the coverlet of the bed ; and in many of his attempts, he seemed to judge pretty accurately of their distance.

“ On the fifth day he got out of bed, and was brought into a room having an equal and moderate light. He walked about the room readily ; and the expression of his countenance was much altered, having acquired that look which indicated the enjoyment of vision. Indeed, he always walked about, *before* the operation, with much freedom ; and even on a very rugged and unequal road, he did not appear to suffer in the least from any jolting.

“ He appeared well acquainted with the furniture of the room, having lived in it several days previous to the operation ; but though he evidently distinguished, and attempted to touch objects which were placed before him, judging pretty accurately of their distances, yet he seemed to trust little to the information given by his eye, and always turned away his head, while he felt accurately over the whole surfaces of the bodies presented to him.

“ On the sixth day he appeared stronger, and amused himself a good deal with looking out of the window, seeming to observe the carts and carriages which were passing in the street. On putting a shilling on the middle of a table, he instantly laid his hand upon it.

“ On the seventh day the inflammation was nearly gone, and he observed a piece of white paper of this size  lying on the table. I took him into the street, and he appeared much interested in the busy scene around him ; and at times seemed frightened. A post supporting a scaffold, at the distance of two or three yards from him, chiefly attracted his notice, and he timorously approached it, groping, and stretching out his hand cautiously until he touched it.”

Of these very valuable facts Mr WARDROP has left us to form our own judgment. To myself, I must own, that, due allowances

ances being made, 1st, for the visual *sensations* which were familiar to the patient from his infancy, and, 2dly, for the intimate and accurate acquaintance which he had acquired of things external, by a comparison of the perceptions of *smell* and of *touch*, the result appears, on the whole, as favourable as could reasonably have been expected, to the Berkeleian theory of vision: Nor am I able to observe a single circumstance of any importance, which is not perfectly reconcilable with the *general tenor* of CHESELDEN's narrative*.

B 2

The

* I have said, the "*general tenor* of CHESELDEN's narrative,"—for there are some *expressions* ascribed by him to his patient, which must, in my opinion, be understood with a considerable degree of latitude. And, indeed, if we reflect for a moment on the astonishment and agitation likely to be produced by the sudden acquisition of a new sense, we cannot fail to be satisfied, that the authority of the narrative rests much more on the conviction which the *whole* circumstances of the case had left on CHESELDEN's own mind, than on the *verbal* answers (intelligent and satisfactory as most of these are), which his patient gave to the queries of his attendants. It was for *this* reason, among others, that I before hinted at the advantages which he would have enjoyed, in observing and describing the *facts* before him, if his patient had been *deaf* as well as *blind*, like the subject of this memoir.

Of one expression employed by CHESELDEN's young man, I think it proper to take some notice here, on account of the stress which Mr WARE seems disposed to lay upon it, as at variance with the language used by his patient Master W. "When the young gentleman first saw, (says CHESELDEN), he was so far from making any judgment about distances, that he thought all objects whatever touched his eyes, (*as he expressed it*), as what he felt did his skin." It seems to me inconceivable, that CHESELDEN could have meant this last phrase to be interpreted literally; for the thing which it implies is altogether impossible. The most obvious meaning which the words convey is, that the object seemed to be *contiguous to*, or *in contact with*, the *cornea*; whereas the truth is, that the office of the *cornea* is merely to transmit the rays to the *retina*, which it does without itself receiving any sensible impression of which we are conscious. Mr SMITH, too, has objected to this mode of speaking, though on grounds somewhat different. "When the young gentleman said, (I quote Mr SMITH's words), that the objects

which.

The strong impression which Mr WARE's paper has lately made on the public mind, and the support which it is probable many readers will imagine that the argument against CHESELDEN derives from the observations of Mr WARDROP, will account sufficiently for the length to which the foregoing remarks have extended : Or, if any farther apology be necessary, I trust that

which he saw touched his eyes, he certainly could not mean that they pressed upon or resisted his eyes ; for the objects of sight never act upon the organ in any way that resembles pressure or resistance. He could mean no more than that they were close upon his eyes, or, to speak more properly, perhaps, that they were in his eyes †." Mr SMITH's idea in this last clause, was, I presume, that the local situation of the object was referred by the patient to the retina, where the image of the object is painted. Now, I confess, for my own part, that although I perfectly agree with Mr SMITH in his criticism on CHESELDEN, I am by no means satisfied, that the emendation which he has suggested of the young gentleman's description is unexceptionable ; for it does not appear to me, that the impression of a moderate light on the retina, is accompanied with any perception of the part of the body on which the impression is made. Where the light, indeed, is so powerful as to produce pain, the case comes to be different ; for a sensation of touch is then united with the proper sensations of sight ; and it is characteristic of all sensations of touch, that they are accompanied with a perception of the local situation of their exciting causes. This, however, it is well known, does not take place with respect to the sensations of smell and of sound ; nor do I imagine it to take place, prior to experience, with respect to the sensations received by the eye. And, therefore, if a patient, in such circumstances, should be led, by his first visual perceptions, to connect them locally with the organ by which they are received, I should be inclined rather to ascribe this to concomitant feelings of pain, (produced by the recent operation, or by the too sudden impression of a strong light), than to any of those sensations which are exclusively appropriated to the sense of sight. But this discussion it is unnecessary for me to prosecute at present, as the opinion we may happen to form with respect to it, (whatever that opinion may be), can never affect the truth of that clause in CHESELDEN's statement, in which he asserts, upon the evidence of his own observations, that "when his patient first saw, he was unable to form any judgment about distances." The remainder of the sentence is only a loose and unintelligible comment of the young man on this simple fact.

† See an *Essay on the External Senses*, by ADAM SMITH, LL. D. (published among his posthumous papers.)

that allowances will be made for my anxiety to obtain from the enlightened Operators of the present times, an additional contribution of evidence in confirmation of one of the most beautiful, and, at the same time, one of the most important theories of modern philosophy.

Mr WARDROP afterwards enters into some circumstantial and very pleasing details with respect to an incident alluded to in a passage which I have already quoted from one of his letters ; — the joy manifested by his patient when he was first dressed in a suit of *gaudy* clothes. From this part of his memoir I shall only transcribe a few lines. “ His partiality to colours seemed to depend entirely on their comparative brilliancy. He in general liked objects that were white ; and still more particularly those of a red colour. A white waistcoat or white stockings pleased him exceedingly ; and he gave always a decided preference to yellow gloves. One day I observed him to take out of his pocket a bit of red sealing-wax, which he had kept for the beauty of its colour.

A pair of green-glasses were given him, with a view of lessening the influence of the bright sun on the still irritable eye ; and from them also he derived great pleasure. Indeed, when he first put them on, he laughed aloud with delight.”

A few weeks after I had been favoured by Mr WARDROP with his first communication on this subject, I learned, through a different channel, that his patient had left London ; and, as I had never happened to make any inquiries about his connections, or the place of his nativity, I had abandoned for many months all expectations of farther intelligence with respect to him ; when he was most unexpectedly and agreeably recalled to my recollection by a letter which I received last week from Mr Professor GLENNIE, the very learned and worthy
successor

successor of Dr BEATTIE in his academical chair at Aberdeen. In this letter Mr GLENNIE incloses "An Account of JAMES MITCHELL, a lad in the county of Moray, born blind and deaf;" drawn up, at Mr GLENNIE's request, by a neighbouring clergyman. From the narrative it appears, that this is the very patient who was formerly under Mr WARDROP's care; and it appears farther, that although his blindness returned again, not long after the operation was performed, the peculiarities of his case still continue to present, *under a new and very different form*, a subject of examination and inquiry, not less interesting than if Mr WARDROP's exertions in his favour had been rewarded with permanent success.

A short extract from Mr GLENNIE's letter will form the best introduction I can prefix to the history which is to follow.

"I send you inclosed an account of a clergyman's son who was born deaf and blind. The account is imperfect as yet; but it is an accurate answer to a series of questions which I put to the clergyman who has taken the trouble to draw it up. As he has very obligingly offered to answer any more queries that I make, I have prepared a good many additional questions, that the present state of the young man's mind may be ascertained with as much accuracy as possible. Much light might have been thrown on the mental faculties, if accurate experiments and observations had been made on patients in such circumstances as this unfortunate young man. I intend, if it be possible, to visit him during our summer vacation; but I am sensible, that little can be done in such a case, even in a visit of some days, compared with what may be accomplished by his constant attendants, if we could teach them to make the proper experiments. For this purpose, the only thing I can think of is, to direct the mother and sister to have recourse to the narratives of some instances not dissimilar,

dissimilar, that their attention may be drawn to their own methods of communication, which, having become habitual, escape their notice. But I must forbear entering on a minute discussion of this case, which appears to me very interesting."

Before I proceed to read the paper alluded to in the foregoing extract, I think it proper for me to mention, that I have not been favoured with the name of the writer, and that I must therefore request, it may not be considered, in its present form, as a fair subject of discussion or of criticism. That it bears strong marks of uncommon intelligence and discrimination in the observer, must be universally acknowledged; but it reached me so very lately, that I have not had time to solicit, through Mr GLENNIE, the author's permission to communicate it to the Society *.

* I have since learned from Mr GLENNIE, that the paper in question was written by the Reverend THOMAS MACFARLANE, minister of Edinkillie, in the presbytery of Forres. Mr GLENNIE adds a sentence which I beg leave to quote, as some apology for the liberty I now take in mentioning Mr MACFARLANE's name without his express authority. I certainly would not have presumed to do so, if I had not been fully persuaded, that all who are competent to form a judgment on such subjects, will feel much indebted to him for his very interesting and satisfactory statement.

"As I communicated to Mr MACFARLANE your wish to print his memoir, I take for granted that he has no objection to your making this use of his papers, although he has not expressed his sentiments explicitly to this purpose."

Answers

Answers to some Queries addressed to a Clergyman in the County of Moray, by Mr Professor GLENNIE of Marischal College, Aberdeen, with respect to JAMES MITCHELL, a lad sixteen years of age, who was born blind and deaf.

“ The subject of this brief notice is the son of the Reverend DONALD MITCHELL, late minister of Ardclach, a Highland parish, lying on the banks of the Findhorn. He was born 11th November 1795, and is the sixth child of his parents, being the youngest except one. All his brothers and sisters, (as were also his parents), are perfectly free from the deficiency of sight and hearing, which occurs in his case; and are healthy and well formed. His mother, who is an intelligent and sensible lady, very early discovered his unfortunate situation: she noticed that he was *blind*, from his discovering no desire to turn his eyes to the light, or to any bright object; and afterwards, (in his early infancy also), she ascertained his being *deaf*, from the circumstance that no noise, however loud, awakened him from sleep. As he grew up, he discovered a most extraordinary acuteness of the senses of touch and smell; being very soon able, by these, to distinguish strangers from the members of his own family, and any little article which was appropriated to himself, from what belonged to others. In his childhood, the most noticeable circumstance relating to him, was an eager desire to strike upon his fore-teeth any thing he could get hold of; this he would do for hours; and seemed particularly gratified if it was

a key, or any instrument that gave a *sharp sound* when struck against his teeth. This would seem to indicate that the auditory nerve was not altogether dormant.

“ In 1808, and again in 1810, his father carried him to London, where operations were performed upon his eyes by the most eminent practitioners, with *very little*, or rather with *no* (permanent) success * ; while an attempt that was made at the same time, to give him the sense of hearing, by piercing the tympanum, totally failed.

“ Such is the brief *history* of this poor lad : it remains now to give some account of his appearance, behaviour, the feelings by which he seems to be actuated, the manner in which he conveys his desires, and the methods by which he is managed.

“ 1. His countenance, notwithstanding his unfortunate defects, does by no means indicate fatuity ; nay, the lineaments of thought are very observable upon it. His features at times, (in church, for instance, and during the time of family prayer), are perfectly composed and sedate ; when sensible of the presence

* That one of these operations was attended with considerable success in the first instance, appears not only from the extracts already copied from Mr WARDROP's narrative, but from the following passage in a letter to that gentleman from the Reverend Mr MITCHELL. This letter is dated 5th October 1810, about a month after Mr MITCHELL and his son had left London, to return home by sea.

“ JAMES seemed much amused with the shipping in the River, and till we passed Yarmouth Roads. During the rest of the passage, we were so far out at sea, that there was little to attract his notice, except the objects around him on deck. His eye is now pretty free of the redness it had when he left town, and the cataract in the same moveable state, sometimes covering more and sometimes less of the pupil. Though his sight is not much increased since we left London, yet I am perfectly satisfied that what he has got is of essential service.”

sence of a stranger, or of any object which awakens his curiosity, his face appears animated; and when offended or enraged, he has a very marked ferocity of look. He is (for his age) of an athletic form, and has altogether a robust appearance.

“ 2. He behaves himself in company with much more propriety than could be expected; a circumstance owing undoubtedly to the great care of his parents, and of his elder sister. He feeds himself. When a stranger arrives, his smell immediately and invariably informs him of the circumstance, and directs him to the place where the stranger is, whom he proceeds to *survey* by the sense of touch. In the remote situation where he resides, male visitors are most frequent; and, therefore, the first thing he generally does, is to examine whether or not the stranger wears boots; if he does wear them, he immediately quits the stranger, goes to the lobby, feels for, and accurately examines his whip; then proceeds to the stable, and handles his horse with great care, and with the utmost seeming attention. It has occasionally happened, that visitors have arrived in a carriage, and, on such occasions, he has never failed to go to the place where the carriage stood, examined the whole of it with much anxiety, and tried innumerable times the elasticity of the springs. In all this he is undoubtedly guided by the smell and touch only, without any assistance from sight; for, going to call lately for his mother, I passed him, near to the house, within a few feet, without his noticing me in the least; and offering him a glass of punch after dinner, he groped for it, as one in total darkness.

“ 3. The feeling by which he appears to be most powerfully actuated, (at least to a stranger), is curiosity, or an anxious desire to make himself acquainted with every thing that is new to him. He appears to feel affection to those of his family

mily very strongly ;—discovered extreme sorrow on account of his father's death ; laid himself upon the coffin, after his father's corpse was put into it, apparently in much grief ; went frequently to his grave, and threw himself upon it, whilst he gently patted the turf, and bemoaned himself greatly. He is likewise capable of feeling mirth, and frequently laughs heartily. He is highly gratified by getting new clothes ; and as tearing his clothes is the most usual expression of his anger, so the punishment he feels most is being obliged to wear them after he has torn them. He is subject to anger, upon being crossed in any of his desires, or when he finds any of his clothes, or articles with which he amuses himself, removed from the chest in which he keeps them.

“ 4. Respecting the manner in which he conveys his feelings and desires, I am much at a loss to give the information that might be expected. It is certain that those of his family know perfectly in what temper of mind he is, and what he wants to have ; and these intimations he conveys to them in the presence of strangers, without these last being sensible of his doing so. When he is hungry, he approaches his mother or sisters, touches them in an expressive manner, and points towards the apartment where the victuals are usually kept. If he wants dry stockings, he points to his legs ; and in a similar way, intimates his wishes upon other occasions. A pair of shoes were lately brought to him, and on putting them on he found them too small. His mother then took them, and put them into a small closet ; soon after a thought seemed to strike him, and he contrived to obtain the key of the closet, opened the door, took the shoes, and put them upon the feet of a young lad who attends him, whom they suited exactly. This action of his implies con-

siderable reflection, and shews that he must have made some accurate examinations, though unnoticed at the time. When he is sick and feverish, which sometimes happens, he points to his head, or takes his mother's hand and places it opposite to his heart, seemingly with an intention that she may observe its beating more quickly than usual. He never attempts to express his feelings by utterance, except when angry, when he bellows in a most uncouth manner. Satisfaction or complacency he expresses by patting the person or object which excites that feeling. His smell being wonderfully acute, he is frequently offended through that sense, when other persons near to him smell nothing unpleasant; he expresses his dissatisfaction on such occasions, by putting his hand to his nose, and retreating rapidly. His taste seems also to be exquisite, and he expresses much pleasure by laughing and smacking his lips, when any savoury victuals are laid before him.

“ 5. His father, when alive, was at much pains in directing him, as his mother still is; but his elder sister seems to have a much greater ascendancy over him, and more power of managing him than any other person. Touching his head with her hand seems to be the principal method which she employs in signifying her wishes to him respecting his conduct; this she does with various degrees of force, and in different manners; and he seems readily to understand the intimation intended to be conveyed. In short, by gratifying him when he acts properly, and withholding from him the objects of his complacency when he has done amiss, he has been taught a sense of what is becoming in manners, and proper in conduct, much stronger than it could be otherwise believed, that any person, in his singularly unfortunate situation, could acquire.”

SINCE

SINCE the foregoing narrative reached me, I have had the good fortune to receive a most important and authentic supplement to it, from Dr JOHN GORDON; a gentleman, on whose recent admission into our number, I beg leave to congratulate the Society. Having communicated to him, on the suggestion of our colleague Dr JOHN THOMSON, Mr GLENNIE's letter with the inclosed statement, he most obligingly undertook, on a very short notice, to add to it whatever particulars relative to the same subject had fallen under his own personal knowledge. Of the ability with which he has executed this task, amidst his various professional avocations, I have no doubt that the Society will think as highly as I do.

Supplement to the foregoing Account of JAMES MITCHELL, by
JOHN GORDON, M. D.

“ The boy who is the subject of the above interesting communication, was brought by his father to visit me at Forres in the autumn of 1808.

“ I found on examination that he had a cataract in each eye. In both, the crystalline lens had a pearly colour, and appeared to be of a firm consistence; but the pupils exhibited very perceptible contraction and dilatation, when the quantity of light was suddenly increased or diminished. The auricle or external part of each ear, and the tube leading from it to the tympanum, were of their natural size and form; and nothing unusual.

usual could be discovered in the conformation of the parts about the fauces.

“ From the motions which were produced in the iris, by varying the quantity of light admitted to the eyes, I should alone have been inclined to hope, that the retina was not altogether wanting, and to have urged the propriety of attempting to remove the opaque lens from the axis of vision by a surgical operation. But the following circumstances served to confirm this opinion. In the first place, Mr MITCHELL informed me, that he had often observed his son, sitting for an hour at a time, opposite to a small hole in the south wall of a hut adjoining to the manse, so as to receive the beams of the sun, which shone through the hole during part of the forenoon, directly on his eyes. The boy could have no other motive for placing himself in this situation, but to enjoy a certain agreeable sensation of light ; and it is not improbable, that the particular pleasure which he seemed to derive from the light of the sun, admitted in this manner, arose from the eyes having been rendered more susceptible to impressions, by being previously directed to the darker parts of the hut. Secondly, I observed, that he very frequently turned his face towards the window of an apartment, and then pressed his finger forcibly backwards between the eyebrow and upper eyelid of one of his eyes, so as to occasion a slight degree of distortion, and a very disagreeable appearance of protrusion of the ball. I supposed, that when he compressed the eye-ball in this manner, either some change in the organ was produced, by which he obtained a more distinct impression from the light of the window, or else that the pressure on the retina simply, occasioned the sensation of a luminous ring or spot, which he had pleasure in contemplating. When I put my silver pencil into his hand, after turning it quickly round in the points of his fingers,
and

and applying it to his nose, lips, and the tip of his tongue, he rattled it smartly between his fore-teeth ; and his father assured me that he did so with every hard substance which he could convey to his mouth, and that he seemed to have pleasure in repeating this motion with metallic bodies in particular. This circumstance led me to conclude, that vibrations communicated through the solid parts of the head, were capable of producing in him, to a certain degree, the sensations of sound. But these sensations were obviously so very weak, when compared with those which persons who are affected with obstruction in the eustachian tubes, can at all times enjoy through the medium of the bones of the head, that I could not but fear that the deafness in this case, depended not on any want of air in the tympanum, but on some great deficiency, or radical imperfection in the structure of the auditory nerve. Although, therefore, no harm could result from piercing the membrane of the tympanum, I did not expect that the sense of hearing would be much improved by this operation.

“ With this opinion of the boy’s situation, I earnestly recommended it to his father to carry him to London, and to place him under the care of Mr WARE and Mr ASTLEY COOPER, in order that the operation of couching or extraction might be performed on one or both eyes, and that the membrane of the tympanum in each ear might be perforated.

“ In the course of a few weeks, Mr MITCHELL repaired with his son to London. Mr ASTLEY COOPER pierced the membrane of each tympanum, but without the slightest benefit ; and, at the same time, the late Mr SAUNDERS operated with the needle on the left eye, and, it is to be presumed, used every effort which the violent struggles of the boy would permit, to depress the cataract ; but not the least advantage resulted from the operation.

“ In

“ In the summer of 1810, several months after his return from London, young MITCHELL was again brought by his father to visit me at Forres. When I placed him in a chair before me, and took hold of his head, with a view to examine his eyes, his situation seemed immediately to recall to his memory the painful operations with which this examination had been formerly succeeded, and he withdrew from me in his chair, panting as from a sudden alarm. By patting him gently on the cheek, however, his fears were quickly allayed. The cataract of the left eye, into which the needle had been introduced, had lost its white colour, and seemed as if broken down ; but still the lens remained opaque, and he was in every respect as blind as when I first saw him. The pupil, however, of each eye was very distinctly enlarged when I placed my hand before his face, and it again contracted when the hand was removed ; and I observed with great satisfaction, every time I practised this experiment, that when the quantity of light admitted to the eye was increased, the boy expressed his pleasure by a smile. The cataract of the right eye had the same appearance of firmness as before, and I therefore still entertained hopes, that it might be practicable to remove it entirely by the operation of extraction. On stating this opinion to Mr MITCHELL, to the honour of whose memory it ought to be remarked, that he displayed at all times the most earnest anxiety to alleviate the sad condition of his child, he immediately resolved to visit the metropolis once more ; and, in compliance with my request, to entrust the treatment of his son, entirely to the judgment and practical skill of my friend Mr WARDROP. In a few weeks Mr WARDROP wrote to me, that having resolved to attempt extracting the cataract from the right eye, he had endeavoured, by means of powerful machinery, as well as the aid of numerous assistants, to fix the boy's head in a position sufficiently steady

steady for so delicate an operation ; but that his struggles were so violent as to render every effort for this purpose ineffectual. The attempt at extraction was therefore relinquished ; but, soon afterwards, I had the satisfaction of being informed by Mr WARDROP, that he had so far succeeded, by the use of the couching-needle, in breaking down the cataract, and removing it from the axis of the eye, that his young patient had been able to see a very small object of a white colour, when placed on a table before him. This partial success from Mr WARDROP's operation, led me to anticipate, with no small confidence, a still further improvement in young MITCHELL's vision, from the gradual absorption of some of the broken fragments of the opaque lens or its capsule. But in this expectation I have been altogether disappointed. In the month of June last, I saw him repeatedly at his father's house, and had ample opportunity of observing his motions with attention. When he approached any object, such as a wall, a cart, or a carriage, so large as to be in part interposed between his eyes and the horizon, he seemed to discover its vicinity by the interception of the light which it occasioned alone, and cautiously put out his hands before him, to feel for that with which he was already almost in contact. But he did not appear to be at all capable of perceiving minute objects, nor of distinguishing in the slightest degree between one colour and another. His powers of vision, therefore, so far from continuing to improve since the successful result of Mr WARDROP's operation, have but too plainly undergone a degree of failure. A fragment of the substance of the lens, or of its capsule, very white and opaque, may still be seen behind one-half of the pupil, and through the lower half, a slighter opacity is very perceptible in the parts situated farther back*.

D

“ On

* “ You will perceive, from the account of the state of the cataract immediately after the operation, that a part of the opaque body still hung over

“ On the whole, I am of opinion, that if this unfortunate, but very interesting boy, should at any future period be induced, either by being informed through the medium of some peculiar language, of the object in view, or from his increased knowledge in the kindness and good intentions of his relations, to submit patiently to the operation of couching or extraction, either of these operations ought to be repeated on one or both eyes. At the same time, it must be confessed, that, since the attempts of this kind already made, have not only failed to communicate to him the powers of distinct vision, but also the perception even of the more striking differences in the degrees and kinds of light, there is but too much reason to fear, that the optic nerve, although not entirely deficient, is yet imperfect in its structure.

“ I have but little to add to the full account which is given in Mr GLENNIE’s communication, of young MITCHELL’s general appearance and conduct. The knowledgewhich he has derived from the senses of Touch, Taste and Smell, seems fully as extensive, as what any person of the most perfect faculties might be supposed to acquire, if he could by any contrivance be prevented from using his eyes and ears for the same period of time, from the moment of his birth, and in the same retired situation of the country. The train of his thoughts seems to be regulated by the same principles as that of the soundest minds. His actions neither indicate incoherence nor fatuity ; but every thing he does, appears capable of being easily traced to rational motives.

a portion of the pupil. I have been told lately, that he now sees little or none. If this be the case, I suspect it must have been from the cataract passing over the whole of the pupillar opening, instead of being altogether absorbed, or remaining out of the way, as might have been expected.”

*Extract of a letter from Mr WARDROP to Mr STEWART,
(dated August 10. 1812.)*

tives. His more pleasurable sensations are obviously enjoyed from the senses of Taste and Smell; and, indeed, I have never observed any thing disagreeable in his manner, except the keenness and voracity with which he devours his food. But he derives amusement also from the sense of Touch. His father told me, that he had often remarked him, employing many hours in selecting from the bed of the river, which runs within a few yards of the house, stones of a round shape, nearly of the same weight, and having a certain degree of smoothness. These he placed in a circular form on the bank, and then seated himself in the middle of the circle.

“ There is a certain range around the manse which he has minutely explored by his organs of Touch, and to any part of this space he seems to walk, when he pleases, fearlessly and without a guide. I believe his range does not yet extend beyond two hundred yards in any direction; but there is probably not a day elapses, during which he does not cautiously feel his way into ground which he had not explored before; and thus gradually extends his yet very circumscribed field of observation. It was in one of these excursions of discovery, that his father observed him with horror, creeping on his hands and knees along a narrow wooden bridge which crossed the river, at a point where the stream is deep and rapid. He was immediately arrested in his progress; and as his father wished to discourage him from hazarding so perilous an attempt again, a servant was directed to plunge him, as soon as he was secured, once or twice into the river. This measure has had the desired effect.

“ From a similar solicitude about his safety, the servants had been enjoined to prevent him from visiting the stable, which he never fails to do, the instant he has discovered by

the presence of an additional whip in the lobby, that the person who has arrived has brought a horse with him. I have been assured, however, that after his wishes in this respect had been repeatedly thwarted, he at last had the ingenuity to lock the door of the kitchen on the servants, in the hopes that he might then accomplish his visit to the stable unmolested.

“ His father once told me an anecdote of him, which displays in a very striking manner, both the retentiveness of his memory, and the benevolent feelings of which he is susceptible. He had received a severe wound in his foot, and during its cure, he usually sat by the fire-side, with his foot resting on a small foot-stool. More than a year afterwards, a servant-boy with whom he used to play, was obliged to confine himself to a chair from a similar cause. Young MITCHELL perceiving, that his companion remained longer in one situation than he used to do, examined him attentively, and seemed quickly to discover by the bandages on his foot, the reason of his confinement. He immediately walked up stairs to a garret, sought out, amidst several other pieces of furniture, the little foot-stool which had formerly supported his own wounded limb, brought it down in his hand to the kitchen, and gently placed the servant-boy's foot upon it*.

“ The

* Somewhat similar to the above anecdote, is the following very pleasing fact, communicated to Mr GLENNIE by HUGH IRVINE, Esq; (son of Mr IRVINE of Drum). I give it in Mr IRVINE's own words.

“ Mr LESLIE of Dorkland, a clergyman, called one day, and was taken by Miss MITCHELL to see something out of doors. When they returned, JAMES MITCHELL perceived (no doubt by the sense of smell) that his sister's shoes were wet: he then went and felt them, and would not let her rest till she changed them.”

“ The last time I saw young MITCHELL, was on the melancholy occasion of his father’s funeral, in the month of June last. According to Mr GLENNIE’s communication, it would seem, that the boy, even before his father’s interment, had expressed by sorrow and bemoaning, a knowledge of the irreparable loss he had sustained. On this point, the deep distress under which the family then laboured, prevented me from making any inquiries. But the poor lad’s behaviour on the day of the funeral, seemed to me so little expressive of grief, that I cannot help doubting in some degree the accuracy of Mr GLENNIE’s information. It will be regarded as a pleasing testimony of the sincere esteem in which Mr MITCHELL was held for his moral worth and exemplary piety, that several hundreds of his friends and parishioners assembled together, to carry his remains to the grave. While this concourse of people waited the commencement of the procession in front of the manse, young MITCHELL at one time moved rapidly among the crowd, touching almost every body, and examining some very minutely ; at another time, he amused himself opening and shutting the doors, or turning down and up the steps of the carriages ; or suddenly he would walk towards the coffin, which was placed on chairs before the door of the house, run his fingers along it with marks even of pleasure, and then trip lightly away, without the slightest expression of sorrow. He accompanied the procession to the church-yard, and returned after the interment, apparently as much unmoved as before. But on the following morning, as I have since been informed, and on several mornings afterwards, he visited the grave, patted gently the turf which had been laid over it, and at last, as

if

if hopeless of his father's return, became sorrowful even to tears*."

THE

* Soon after this memoir was read, I informed Mr GLENNIE of the difference in the accounts given by Mr MACFARLANE and by Dr GORDON, of young MITCHELL's behaviour on the day of his father's funeral. In a letter with which he has lately favoured me (dated May 10. 1812,) there is a passage transcribed from a letter of Mr MACFARLANE's (dated May 7.) which I think it proper to subjoin to the foregoing details, as an important document with respect to this interesting point;—the only point of any consequence in which the two papers do not perfectly agree.

" In the account which I transmitted to you of JAMES MITCHELL, I mentioned that he seemed much afflicted and very sorrowful the day of his father's funeral; and I now beg leave explicitly and positively to state, that when the coffin which enclosed his father's corpse was brought from the house, and placed upon chairs in the court before the manse, previous to the interment, I approached to the coffin, and soon after saw JAMES MITCHELL come from the house in considerable agitation. He turned about his head rapidly, and *snuffed* very much, evidently guiding himself by the sense of smell. He directly approached the coffin, smelled it most eagerly for several seconds; then laid himself down upon the lid, on his face, and embraced the coffin, while his countenance discovered marks of the most lively sorrow. I stood close by him, and after a short time, patted his head once or twice; upon which he rose, and returned into the house. This occurred immediately upon the coffin being brought out, and about twenty minutes before it was lifted, in order to be carried to the church-yard. As the accuracy of my information on this subject has been doubted, I purposely delayed writing to you, till I should have an opportunity of conversing with the Reverend PRYSE CAMPBELL, minister of Ardersier, brother-in-law to Mrs MITCHELL, who was present at the funeral, and by whose direction every thing was conducted. I fell in with this gentleman on Tuesday se'ennight, at the meeting of our Provincial Synod. I took an opportunity there of asking him, if he observed any marks of sorrow about JAMES MITCHELL on the day of his father's funeral. He replied, that he did observe the most unequivocal marks of grief in his countenance; and added a circumstance which escaped my notice, that
when

THE case described in the foregoing papers is said by Mr WARDROP, in a letter of his already quoted, to be *unique*, to the best of his knowledge ; and that it really is so, I am inclined to believe, as far as this can be inferred from the silence of scientific writers *. That it is, at least, a very *rare* occurrence, is demonstrated

when the coffin was about to be lifted, in order to be carried to the church-yard, JAMES MITCHELL clung to it, endeavouring to prevent its being carried away, and that he (Mr CAMPBELL) was obliged to remove him from it by force."

After quoting the above passage, Mr GLENNIE adds :—" Mr MACFARLANE, in his remarks on the apparent inconsistency between Dr GORDON's account of young MITCHELL and his own, has expressed what occurred to me immediately after I read your last letter. His words are: " I would observe, that the circumstances mentioned by Dr GORDON, of MITCHELL's running through the crowd, and touching every person, do not, in my opinion, amount to a proof, that he was insensible of the loss which he had sustained, and felt no grief on that account. In acting thus, MITCHELL (if the expression may be allowed) was merely *viewing* the assemblage of people around him. This he could not do by his eyes ; but being eager to examine them, he did so by means of the senses of which he has the use. In short, he was grieved ; but, in this instance, his curiosity overcame his grief." The remark certainly does honour to Mr MACFARLANE's sagacity, and, in my opinion, goes far to reconcile the two narratives. I hope to be able soon, through Dr GORDON's means, who proposes to pass a part of this summer in that neighbourhood, to obtain from the mother and sister of the young man, a still more circumstantial account of his general behaviour, and of the apparent state of his feelings at this trying crisis of his life. Some very interesting particulars, with respect to these points, (which have been already communicated to me by this gentleman) may be found in an Appendix annexed to this memoir. (May 20. 1812.)

* In DIDEROT's very ingenious and fanciful Letter on the Blind, there are various allusions to the hypothetical case of an *Aveugle-Sourd-Muet*. In one passage,

monstrated by a passage in the Abbé SICARD's Course of Instruction for the Deaf and Dumb, where it is mentioned only as a hypothetical contingency, which had been contemplated by him and by his predecessor the Abbé de l'ÉPÉE, as a possible,

sage, he remarks, somewhat whimsically, that if a person born in these circumstances, should begin to philosophize concerning man, according to the method of DESCARTES, he would place the seat of the soul at the tips of his fingers; and, in all probability, after an effort of profound meditation, would feel his fingers ache as much as we should do our heads. From the following sentence, one would be led to suppose, that DIDEROT had actually seen or heard of persons in the same condition with MITCHELL; but if this really had been the fact, we may presume with some confidence, that he would not have contented himself with so vague and equivocal a reference to an occurrence at once so anomalous and so curious in the physical history of man. "*Faute d'une langue, la communication est entièrement rompue entre nous et ceux qui naissent sourds, aveugles, et muets: ils croissent, mais ils restent dans un état d'imbécillité.*"

In those valleys of the Alps, indeed, where the disease of *Crétinisme* is common, examples are said frequently to occur of an almost total deprivation of all the senses; but, in such instances, the individual presents invariably, in the low and humiliating state of his intellectual capacity, a very striking contrast to the subject of this memoir. The *universal* torpor in the perceptive faculties of the *Crétin*, is plainly an effect of the same radical disorder which impairs his intellect; whereas, in the instance before us, (as in every instance where the intellect is entire), the mind, checked and confined in the exercise of one class of her powers, displays her native strength by the concentrated energy which she exhibits in others. The following description relates to *an extreme case of Crétinisme*; for it appears, that it admits of various gradations. It is taken from the most circumstantial, and apparently the most accurate, account of this local malady that has fallen in my way.

"The sensibility of the *Crétin* is extremely obtuse: he dreads neither cold nor heat, nor vermin; nor even those blows which would be insupportable to another.

"The greater part are evidently deaf and dumb; although I have happened to see a few who would shudder at the report of a pistol. These last would seem to receive some passive impression from sound; but they are certainly incapable

sible, and not altogether as an improbable event, among the various physical calamities to which our species is liable. It appears from the same ingenious author, that the Abbé de l'EPE'E had even gone so far, a few years before his death, as to offer, in some of the Continental Journals, with his characteristic benevolence, to undertake the charge and tuition of any child who might be brought into the world in these unfortunate circumstances; and M. SICARD has not only taken the trouble to record the general principle on which the Abbé de l'EPE'E intended, if this accident should occur, to have proceeded in the education of his pupil; but has added some very judicious strictures of his own, on the imperfections of the plan which his predecessor proposed, in such an instance, to follow.

These

capable of *listening* to what is passing around them. The organ of Smell is insensible; and the power of Taste but imperfectly developed. The sense of seeing alone appears uninjured by the disorder; but even from *this* they derive little benefit. They gaze with indifference on the spectacle of Nature; and if they *see*, can hardly be said to *perceive*."

"This disease is peculiar to the human species. All the classes of animals, from the oyster to the monkey, possess a sufficient degree of *intelligence*, to procure the means of their own subsistence. The *Crétin*, on the other hand, would die of hunger, if his wants were not provided for by the attentions of others."

(*Traité du Goître et du Crétinisme, par F. E. Foderé, Ancien Médecin des Hôpitaux civils et militaires. A Paris, an VIII.*)

Since this note was written, I have received a letter from Mr GLENNIE, in which he remarks, and, in my opinion, very justly, that the case of MITCHELL is probably not so *very* rare an occurrence, as we might, at first, be disposed to imagine. "Among the various merits (he observes) of this worthy family, their superiority to such prejudices as would have precluded our getting any information about the lad's state of mind, is deserving of peculiar notice. . . . I have reason to believe, that there are others in circumstances similar to young MITCHELL's, whose cases are, at this day, kept so secret, that they are not so much as known to the inmates and members of the family to whom they belong."

These strictures I cannot help taking this opportunity of recommending to the attention of those who may attempt the farther instruction of young MITCHELL. The following abridged translation * of a passage in the preface, may, in the mean time, suggest some useful hints.

..... “ But, if there should be found a person deaf and dumb, in whose case the use of this visible language was impracticable; if, among the afflicting exceptions and mutilations of nature, an individual should occur, deaf and blind from his birth, to what class of *signs* should we have recourse in attempting *his* education? At what an immense distance from other men would a being so cruelly degraded be placed; and how difficult to transport him across that gulf by which he is separated from the rest of his species? The means of instruction employed in ordinary instances of dumbness, would here be manifestly inapplicable; all of these means presupposing the use of sight, to which a constant reference is made, not only in the communication of physical ideas, but in typifying the processes of thought, and in rousing the dormant powers of the understanding.

“ I flatter myself, I have already proved, that, from the beginning, Man possessed, in his own bodily organs, two different *media* for conveying his ideas; and that, instead of employing *oral speech*, he might have had recourse to a *manual language*. Why, then, might we not, in the supposed case of

a

* In this translation, I have not only omitted several sentences in the original, which did not appear to bear upon my present object, but have not scrupled to interpolate a few clauses of my own, which I thought might be useful in conveying the author's meaning more clearly to an English reader. The sense of the passage is rendered, to the best of my judgment, with perfect fidelity.

a blind and deaf pupil, avail ourselves of the assistance of the latter, which, if not visible to his eye, would be, at least, tangible to his hand. It is only extending farther the use of a species of signs already practised between MASSIEU and me, when, during the darkness of night, he *sees* by his own hands whatever mine would express to him. Why should not the blind and deaf pupil be taught to converse in the same manner, during the light of day?

“ Ah! if the experiment I should wish to make were to prove not altogether useless; if, as I have already done for the deaf and dumb, I should be the instrument of bestowing a *mind* on this still more unfortunate object, I should myself enjoy a degree of happiness greater than any which *he* could possibly derive from the success of my labours!

“ My illustrious predecessor had the boldness to think, that even *this* case, if it should be realised, would not present unsurmountable obstacles to an instructor. The following is an outline of the plan upon which, he told me, it was his intention to proceed.

“ An alphabet of polished steel was to be employed as the *materials* of his nomenclature for sensible objects, and for those *actions* which might be brought under the cognizance of the sense of Touch. He hoped to be able to familiarise his pupil with these characters, so as to devolve upon his hands the office of his eyes; and, for this purpose, he proposed to make him feel the object with one hand, while he was learning to distinguish its name with the other. His inventive genius would doubtless have led him, in the course of his experiments, to whatever other means were necessary for the attainment of his end.

“ I am perfectly aware, that difficulties would immediately present themselves at every step; for, how would it be possi-

ble, without any intercourse either by the eye or by the ear, to establish, in the pupil's mind, the connection between the object and its sign? I apprehend, it would be necessary here to avail ourselves of some of his animal instincts; to withhold, for example, the objects of his desires and wants, till he should recollect their names, and exhibit their characters*. This first step would perhaps be followed by a second; that of teaching him to distinguish the qualities and modes of objects. Colours and sounds would, of course, be excluded from our lessons; but the *forms* of bodies, which fall under the province of Touch, might be easily impressed on his memory; and upon this basis, what should prevent us from proceeding to rear a metaphysical structure? If those qualities which strike the sense of Sight have gradually led the deaf and dumb to the knowledge of things intellectual and moral, why should not the qualities about which the sense of Touch is conversant, be made the channel to the same sort of information? Instead of speaking to the eye, we have only to speak to the hand. In truth, the whole system of instruction explained in the following work, might be adapted to our new pupil, by presenting to him, *in relief*, the various delineations and diagrams by which it is illustrated; those slight changes being made

* In the case of MITCHELL, the difficulties here alluded to would probably be experienced in a comparatively small degree, in consequence of the previous use of those significant pressures on his forehead, of which his sister has taught him to comprehend the meaning. If this should turn out to be the fact, she has already got over, by her own ingenuity, the first and most arduous step in the whole process of his education.

MR WARDROP takes notice, in one of his communications, of his extreme docility, and of his obedience to the commands of his sister, who, during his stay in London, "was his constant companion and guide." "It was astonishing (he adds) how readily she could communicate to him, by signs, her wishes."

made in the method, which the circumstances of the case would readily suggest. *This* pupil, (as has often happened in the education of the deaf and dumb), would soon become the master of his teacher; and every step which was gained, would of itself, point out the next which was to be taken *.

“ May such a system of instruction remain always matter of pure speculation! God forbid, that a child should ever be brought into the world, without any substitute but the hand for the eye and for the ear! But as, unfortunately, such a deviation of nature from her usual course, is an event but too possible, let us consider beforehand what may be done, by way of remedy or of alleviation. To restore a Man to society, to his family, and to himself, would be an enjoyment too exquisite, and a conquest too proud, to permit us to abandon the undertaking in despair.”

For a comment on the above observations, I must refer to the work at large. They who read it with attention, and who enter fully into the author's views, will be at no loss to perceive the different modifications which his plan will require, in

* It is somewhat surprising, that the Abbé SICARD should have overlooked the aid which the sense of Smelling seems so peculiarly calculated to furnish, for rearing his proposed *Metaphysical Structure*. Some of the most significant words relating to the Human Mind, (the word *sagacity*, for instance), are borrowed from this very sense; and the conspicuous place which its sensations occupy in the poetical language of all nations, shew how easily and naturally they ally themselves with the refined operations of the Fancy, and with the moral emotions of the Heart. The infinite variety of modifications, besides, of which they are susceptible, might furnish useful resources, in the way of association, for prompting the memory, where it stood in need of assistance.

One of the best schools for the education of such a pupil, would probably be, a well-arranged Botanical Garden.

in applying it to such a case as that of MITCHELL. His fundamental principles are general, and deeply philosophical; being, all of them, deduced from a careful study of the steps by which children gradually and insensibly acquire the use of oral speech; and of consequence, they are equally applicable to every species of *signs* by which one mind can hold intercourse with another. In the mean time, I beg leave to add to the foregoing quotation, the account given by SICARD of his first lesson to MASSIEU, as it touches on a very natural mistake, which, with a few, if any exceptions, has misled all those who have hitherto undertaken the education of the deaf and dumb; and which, in case any attempt should be made for the farther improvement of MITCHELL, it may be worth while to point out, by way of caution, to his instructors.

“ My first lesson was employed upon the alphabet. I had not yet reflected on the imperfection of this method, which, from the first outset, counteracted that analytical procedure which is natural to the mind, and by which alone the mind can be guided to the use of its faculties. What information, in reality, (as I afterwards began to question myself), can the understanding possibly derive from a series of abstract characters, arranged in a particular order by chance or caprice, and to which nothing equivalent can be exhibited in Nature? But it was thus that my illustrious Master began, and every step in his system seemed to me then indispensable and sacred.”

In a subsequent passage, M. SICARD takes notice still more explicitly, of the absurdity of teaching a pupil in such circumstances to read or to copy isolated letters, in that order which our alphabet exhibits. “ What interest, (he asks), could MASSIEU have felt about characters signifying nothing, and occupying, without any conceivable reason, a certain place in an arbitrary series? Accordingly, I directed his attention at once to words,

words, without attempting to explain to him that the elements of these words were letters, and still less that these letters were consonants and vowels. Indeed, how was it possible for him to annex any notion to the technical terms of grammar, when he was not yet in possession of a language, and when he had only a few fugitive notions to fix and to express?"

In these extracts, M. SICARD describes, with great candour, the process of thought by which he was conducted to (what I consider as by far the most important of the many improvements which he has introduced into his art) the simple, yet luminous idea, of copying his plan of instruction, not from the example of a schoolmaster teaching a child to read, but from the example of the child itself, in acquiring the use of its mother-tongue. Of these two methods, the former, it must be owned, is by far the more obvious; and where mere articulation is the chief object of the teacher, it will probably be found the more easy and effectual in practice. But SICARD's aim was of a different, and of a higher nature;—not to astonish the vulgar by the sudden conversion of a dumb child into a speaking *automaton*; but, by affording scope to those means which Nature herself has provided for the gradual evolution of our intellectual powers, to convert his pupil into a rational and moral being. The details of his lessons, accordingly, are not more interesting to the few, who may attempt the education of such unfortunate *exceptions* as MASSIEU or MITCHELL, than to all those who delight in tracing to their elementary principles the materials of human knowledge, and in marking the first openings of the infant mind*.

IN.

* See the Note at the end of the Memoir.

IN order to complete the history of MITCHELL, I am aware that a variety of curious points still remain to be ascertained ; and, if I had not been anxious to bring it forward to public notice, even in its present imperfect state, without any farther delay, I should have been inclined to retain it in my own hands, till my information on the subject should have been a little more ample. My wish, I must acknowledge, is, That some plan could be devised for removing the young man to Edinburgh ; or rather (as he has been accustomed hitherto to enjoy the air and the freedom of the country), to some quiet residence in the neighbourhood ;—to some situation, in short, where an opportunity would be afforded for examining and recording, under the eye of this Society, the particulars of a case, to which it is to be hoped, that nothing similar will again occur in our times. Something, it would appear from Dr GORDON's statement, may perhaps, at a future period, be attempted for the extraction of his cataracts,—in which event (should the operation succeed), I need not say, what an accession would at once be made to his own enjoyments, and to his value as an object of philosophical curiosity :—But even on the supposition that this hope should be disappointed, a subject of inquiry not less interesting than any question connected with the Theory of Vision, will still remain,—to ascertain how far it might be possible, by following out the Abbé SICARD's hints, to cultivate the intellectual and moral faculties of a human being, destitute of the two senses which are the ordinary vehicles of all our acquired knowledge. Nor do I apprehend that this experiment would be attended with such insuperable difficulties

ties as might at first be suspected ; as I am assured by the best authority, that his eldest sister, whose good sense has already devised some imperfect modes of communication with her unfortunate brother, possesses talents which fully qualify her to carry into execution any plan that may be proposed for his farther improvement. His age, at present, only exceeds by two years, that of SICARD's celebrated pupil MASSIEU, when his education was begun ; and at that period, MASSIEU, though he had the inestimable advantage of possessing the sense of Sight, seems to have had his rational faculties as imperfectly developed as those of MITCHELL.

I must, at the same time, observe here, in justice to myself, that my expectations of the future improvement of the latter, are by no means so sanguine as those which the Abbé SICARD would probably have indulged in similar circumstances. Were it possible, indeed, to place him under the immediate tuition of that eminent man, I have little doubt that much more would be accomplished than appears to us to be practicable ; but the difference between his situation and that of MASSIEU is so immense, as to render all our conclusions founded on the history of the one, quite inapplicable (except with great modifications) to the case of the other. The slowness with which the sense of Touch proceeds, in collecting information concerning the external world, when compared with the rapid perceptions of the Eye, would, on the most favourable supposition, retard infinitely the rate of his progress in acquiring even the first elements of knowledge. This, however, furnishes no argument against the attempt ; nor does it even tend to diminish the value of the results to which it might lead. The slightest addition that could be made to his present range of ideas, by means of an improved system of

F

signs ;

signs; and still more, the slightest developement that could be given to any of his dormant powers, might afford not less important *data* for philosophical speculation than the most extensive acquisitions.

HAVING mentioned more than once the name of MASSIEU, I think it proper to subjoin to the preceding remarks, the description of him given by SICARD, at the time when their acquaintance commenced. It may serve to shew, that the idea of attempting the education of MITCHELL, even at the age of sixteen, is not altogether chimerical.

“ The reader will easily form an idea of the character and manners of MASSIEU, when he is told, that he was born in a cottage, six leagues from Bordeaux; and that his relations (who were the only individuals with whom he ever had any intercourse) had not even taken the trouble to communicate to him the slightest information about material objects. His childhood had been spent in tending a flock; and all his ideas were confined within the narrow circle which had fallen under his random observation. MASSIEU was a Man of the Woods; untinctured with any habits but such as were purely animal; astonished and terrified at every thing. In coming to Bordeaux, he had believed that he was only changing his place of abode; and that he would be employed there in keeping another flock: but it was towards the beloved scene which he had left, and which had witnessed the first sports of his infancy, that his imagination was incessantly turned. In every thing he saw, he apprehended some danger; in every step he was directed to take, he suspected some snare. How far was this simple boy, accustomed as he was to consider himself on a level with the animals entrusted to his care, from dreaming that he was about to be raised by education to the rank of Man! His
clouded

clouded and inexpressive countenance ; his doubtful and shifting eye ; his silly and suspicious air,—all seemed to announce, that MASSIEU was incapable of any instruction. But it was not long till he began to inspire his Teacher with the most flattering hopes.”

Abstracting, however, entirely from all conjectural speculations with respect to MITCHELL's possible attainments in future, the particulars already in our possession afford *data* for some important conclusions concerning the capacities of the Human Mind, considered in contrast with the instincts of the Brutes. For these I do not think that the Transactions of this Society afford a proper place ; and I have accordingly, all along, confined myself to the detail of *facts*, leaving the philosophical inferences to which they may lead for future consideration.

Nor is it, in this point of view alone, that his case is an object of curiosity at the *present* moment. The examination of his powers of external perception (considered merely as articles of natural history *) promise, under the peculiar circumstances of

F 2

his

* I cannot help quoting here a very curious observation of Mr WARDROP's, with respect to the partialities and dislikes conceived by MITCHELL, in consequence of the *moral expression*, (if I may be allowed such a phrase), which he seems to have attached to particular sensations of smell. “When a stranger (says he) approached him, he eagerly began to touch some part of his body, commonly taking hold of his arm, which he held near his nose ; and after two or three strong inspirations through his nostrils, appeared decided in his opinion. If it happened to be unfavourable, he suddenly went to a distance with the appearance of disgust ; if favourable, he shewed a disposition to become more intimate, and expressed, by his countenance, more or less satisfaction.”

his condition, a field of study, of which, if it has ever occurred before in the annals of our species, no scientific use appears to have been made. How much the simultaneous exercise of our different senses obstructs the perfection of each, may be inferred from the delicate touch, and acute hearing of the blind. It remains to be ascertained, to what degrees of improvement, the perceptions of Feeling, of Taste, and of Smell, may attain in an individual possessed of these senses alone*.

I

* In one of the communications which I have received, it is said, that "MIRCHELL has been known to follow the footsteps of another person for two miles, guided merely by the sense of smelling." As this circumstance, however, is stated only on report, I have not introduced it into the text; and mention it here chiefly in the hope of obtaining more precise and authentic information upon the subject.

It would be desirable also to learn something more circumstantial and specific, both with respect to the discriminating powers of his palate, and his predilections in the article of food.

Neque inutile foret, neque ab honestissimâ sapientiâ alienum, novisse quomodo hic miserandus, jam puber factus, se habuerit quod ad res venereas; hunc appetitum an senserit necne; quâ formâ, quibus indiciis se prodiderit; foeminarum an virorum consortio adolescenti magis placeat; socii sexum an olfactu dignoscere videatur. Hæc et similia bene multa, dictu parum decora, scitu verò non indigna, si modò observandi copia data fuerit, unicuique in mentem venient cui Naturæ Humanæ scientia est cordi, quique infelicissimum et penè singularem illius statum ritè contemplabitur.

I shall only add farther, before concluding this memoir, that, in submitting it to the Royal Society, I was partly influenced by the hope, that it may possibly be the means of securing a decent provision for the individual to whom it relates ;—perhaps, also, a competent independence for those members of his family on whom he has been so long a burdensome and expensive charge. I allude, not merely to his mother, whose claims must immediately force themselves on the notice of every one, but more particularly to his eldest sister, on whom the duties of superintending and educating him have chiefly devolved from his infancy. To the painful and incessant attentions which his helpless condition required, the best years of her life have been hitherto devoted ; and so essential is the continuation of the same affectionate cares to his comfortable existence, that, independently of what is due to her own singular merits, she must, of necessity, be included in any arrangement, of which his improvement and happiness are the principal objects. For the purposes already mentioned in this paper, the funds of the Society, I am well aware, are altogether inadequate ; but if they shall be pleased to recommend the business to the consideration of their Council, I have no doubt, that something may be suggested for the accomplishment of a measure, which, even if it should fail in adding materially to the stock of useful knowledge, would at least prevent the regrets which might afterwards be felt, if so rare an opportunity for philosophical observation and experiment should be suffered to pass before our eyes, without any attempt being made to turn it to the advantage of science.

NOTE,

NOTE, p. 39.

I HAVE been led to insist at some length on the philosophical merits of SICARD's plan of instruction for the Dumb, not only because his fundamental principles admit of an obvious application (*mutatis mutandis*) to the case of MITCHELL ; but because his book does not seem to have attracted so much notice in this country as might have been expected, among those who have devoted themselves to the same profession. Of this no stronger proof can be produced, than the stress which has been laid by most of our Teachers, on the *power of articulation*, which can rarely, if ever, repay, to a person born deaf, the time and pains necessary for the acquisition. This error was, no doubt, owing, in the first instance, to a very natural, though very gross mistake, which confounds the gift of Speech with the gift of Reason ; but I believe it has been prolonged and confirmed in England, not a little, by the common union of this branch of *trade* with the more lucrative one, of professing to cure organical impediments. To teach the dumb to speak, besides, (although, in fact, entitled to rank only a little higher than the art of training starlings and parrots), will always appear to the multitude, a far more wonderful feat of ingenuity, than to unfold silently the latent capacities of the understanding ;—an effect which is not, like the other, palpable to sense, and of which but a few are able either to ascertain the existence, or to appreciate the value. It is not surprising, therefore, that even those Teachers who are perfectly aware of the truth of what I have now stated, should persevere in the difficult, but comparatively useless attempt, of imparting to their pupils

pupils that species of accomplishment, which is to furnish the only scale upon which the success of their own labours is ever likely to be measured by the public.

The example of Dr WALLIS of Oxford, the most eminent English author who has yet turned his attention to this study, has probably had considerable influence in misleading his successors. His thoughts (as he tells us himself) were originally led to it by his analytical inquiries concerning the mechanical formation of articulate sounds, a subject which he appears to have very deeply and successfully meditated; and accordingly, the first step which he took with his two most distinguished pupils (POPHAM and WHALEY) was to teach them *to speak*. He also informs us, that he had in various instances applied the same principles, in curing organical impediments. Indeed, it was evidently on this branch of his art, that he valued himself chiefly as an instructor of the dumb. In cultivating the intellectual powers of these, his success does not seem to have been such as to admit of comparison with that of the Abbé SICARD; and it is remarkable, that the pupils, of whose progress he speaks most highly, are a few with whom he carried on all his intercourse by means of writing, without wasting any of their time in communicating to them the gift of oral speech. “*Alios aliquot surdos, loquelam docere non aggressus sum, sed solummodo ut res scriptas mediocriter intelligerent, suaque sensa scripto quadantenus insinuarent: Qui tempore non longo progressus eos fecerint, rerumque plurimarum notitiam acquisiverint, multo ultra quam quod putabatur fieri posse a quoquam in eorum circumstantiis posito; fuerintque plane capaces acquirendi (si plenius exculti) ultio-rem cognitionem quæ posset scripto impertiri.*” See WALLISII Opera Mathemat. vol. iii. p. 696. See also his letter to Mr BEVERLEY, in the Transactions of the Royal Society of London for 1698.—I am obliged
to

to quote from the Latin version, not having the Philosophical Transactions at hand.

After having thus paid the tribute of my sincere respect to the enlightened and benevolent exertions of a celebrated foreigner, I feel myself called on to lay hold of the only opportunity that may occur to me, of rescuing from oblivion the name of a Scottish writer, whose merits have been strangely overlooked both by his contemporaries and by his successors. The person I allude to is GEORGE DALGARNO, who, more than a hundred and thirty years ago, was led by his own sagacity, to adopt, *a priori*, the same general conclusion concerning the education of the dumb, of which the experimental discovery, and the happy application, have, in our times, reflected such merited lustre on the name of SICARD. I mentioned DALGARNO formerly, in a note annexed to the Philosophy of the Human Mind, as the author of a very ingenious tract entitled *Ars Signorum*, from which it appears indisputably that he was the precursor of Bishop WILKINS in his speculations concerning a Real Character, and a Philosophical Language; and it now appears to me equally clear, upon a farther acquaintance with the short fragments which he has left behind him, that, if he did not lead the way to the attempt made by Dr WALLIS to teach the dumb to speak, he had conceived views with respect to the means of instructing them, far more profound and comprehensive than any we meet with in the works of that learned writer, prior to the date of DALGARNO's publications. On his claims in these two instances I forbear to enlarge at present; but I cannot deny myself the satisfaction of transcribing a few paragraphs, in justification of what I have already stated, with respect to the remarkable coincidence between some of his theoretical deductions,

deductions, and the practical results of the French academician.

“ I conceive there might be successful addresses made to a dumb child even in its cradle, when he begins—*risu cognoscere matrem* ; if the mother or nurse had but as nimble a hand, as commonly they have a tongue. For instance, I doubt not but the words, *hand, foot, dog, cat, hat*, &c. written fair, and as often presented to the deaf child's eye, pointing from the words to the things, and *vice versa*, as the blind child hears them spoken, would be known and remembered as soon by the one as the other. And as I think the eye to be as docile as the ear ; so neither see I any reason, but the hand might be made as tractable an organ as the tongue ; and as soon brought to form, if not fair, at least legible characters, as the tongue to imitate and echo back articulate sounds.”

“ The difficulties of learning to read, on the common plan, are so great, that one may justly wonder how young ones come to get over them. Now, the deaf child, under his mother's tuition, passes securely by all these rocks and quicksands. The distinction of letters, their names, their powers, their order, the dividing words into syllables, and of them again making words, to which may be added Tone and Accent ; none of these puzzling niceties hinder his progress. It is true, after he has past the discipline of the nursery, and comes to learn grammatically, then he must begin to learn to know letters written, by their figure, number, and order, &c. &c.

The same author elsewhere observes, that “ *the soul can exert her powers, by the ministry of any of the senses : And, therefore, when she is deprived of her principal Secretaries the Eye and the Ear ; then she must be contented with the service of her lackeys and scullions, the other senses ; which are no less true and faithful to their mistress, than the eye and the ear ; but not so quick for dispatch.*”

I shall only add one other sentence, from which my readers will be enabled, without any comment of mine, to perceive with what sagacity and success, this very original thinker, had anticipated some of the most refined experimental conclusions of a more enlightened age.

“ My design is not to give a methodical system of grammatical rules ; but only such general directions, whereby an industrious Tutor may bring his deaf Pupil to the vulgar use and *ὁρι* of a language ; that so he may be the more capable of receiving instruction in the *δι' ὁρι* from the rules of grammar, when his judgment is ripe for that study : Or, more plainly ; I intend to bring the way of teaching a deaf man to read and write, as near as possible, to that of teaching young ones to speak and understand their mother-tongue.”

In prosecution of this general idea, he has treated, in one very short chapter, of a *Deaf Man's Dictionary* ; and in another, of a *Grammar for Deaf Persons* ; both of them containing (under the disadvantages of a style uncommonly pedantic and quaint) a variety of precious hints, from which, if I do not deceive myself, useful practical lights might be derived, not only by such as may undertake the instruction of such pupils as MITCHELL or MASSIEU, but by all who have any concern in the tuition of children during the first stage of their education.

The work from which these quotations are taken, is a very small volume, entitled “ *Didascalocophus*, or, The Deaf and “ Dumb Man's Tutor, printed at the Theater in Oxford, 1680.” As I had never happened to see the slightest reference made to it by any subsequent writer, I was altogether ignorant of its existence, when a copy of it, purchased upon a London stall, was a few years ago sent to me by a friend, who, amidst a multiplicity of more pressing engagements and pursuits, has never
lost

lost sight of the philosophical studies of his early years. I have been able to learn nothing of the author, but what is contained in the following slight notice, which I transcribe from ANTHONY WOOD. "The reader may be pleased to know, that one GEORGE DALGARNO, a Scot, wrote a book, entitled, *Ars Signorum*, &c. London, 1660. This book, before it went to press, the author communicated to Dr WILKINS, *who from thence taking a hint of greater matter*, carried it on, and brought it up to that which you see extant. This DALGARNO was born at Old Aberdeen, and bred in the University at New Aberdeen; taught a private grammar school with good success for about thirty years together, in the parishes of S. Michael and S. Mary Mag. in Oxford; wrote also, *Didascalocophus*, or, the Deaf and Dumb Man's Tutor; and dying of a fever, on the 28th of August 1687, aged sixty or more, was buried in the north body of the church of S. Mary Magdalen." (Ath. Oxon. vol. ii. p. 506-7.)

The obscurity in which DALGARNO lived, and the complete oblivion into which his name has fallen, are not a little wonderful, when we consider that he mentions among the number of his friends Dr SETH WARD, Bishop of Sarum; Dr JOHN WILKINS, Bishop of Chester; and Dr JOHN WALLIS, Professor of Astronomy at Oxford. It is still more wonderful, that no notice of him is taken in the works either of WILKINS or of WALLIS, both of whom must have derived some very important aids from his speculations.

This unfairness on the part of WILKINS, has not escaped the animadversion of one of his own biographers. "In the prefatory epistle (he observes) to the Essay towards a Real Character, Dr WILKINS mentions several persons who assisted him in this work, particularly WILLOUGHBY, RAY, and Dr WILLIAM LLOYD and others; but it is remarkable, that he does not men-

tion DALGARNO, and the more, because Dr WILKINS's own name is printed in the margin of King CHARLES II.'s letter prefixed to DALGARNO's book, as one of those who informed his Majesty of Dalgarno's design, and approved it, as a thing that might be of singular use to facilitate an intercourse between people of different languages; which prevailed with his Majesty to grant his said letters of recommendation to so many of his subjects, especially of the Clergy, as were sensible of the defectuousness of art in this particular." *Biog. Britan. Art. WILKINS* *.

That DALGARNO's suggestions with respect to the Education of the Dumb, were not altogether useless to Dr WALLIS, will, I think, be readily admitted by those who take the trouble to compare his letter to Mr BEVERLY (published eighteen years after DALGARNO's treatise) with his *Tractatus de Loquela*, published in 1653. In this letter some valuable remarks are to be found on the method of leading the dumb to the signification of words; and yet, the name of DALGARNO is not once mentioned to his correspondent.

If some of the details and digressions in this note should be censured, as foreign to the principal design of the foregoing memoir, I can only plead in excuse, my anxiety to do justice, even

* In GRAINGER's Biographical History of England, mention is made of a still earlier publication than the *Ars Signorum*, entitled, "The Universal Character, by which all Nations in the World may understand one another's conceptions, reading out of one common Writing their own Tongue. By CAVE BECK, Rector of St Helen's, in Ipswich, 1657." This book I have never seen.

The name of Dalgarno (or Dalgarus, as it has been sometimes written) is not altogether unknown on the Continent. His *Ars Signorum* is alluded to by LEIBNITZ on various occasions, and also by FONTENELLE in the *Eloge* of LEIBNITZ. His ideas with respect to the education of the Dumb, do not seem to have attracted any notice whatever. The truth is, they were much too refined and enlightened to be duly appretiated at the period when he wrote.

even at the distance of a century, to the memory of an ingenious man, neglected by his contemporaries, and already in danger of being totally forgotten by posterity. To those whose curiosity may lead them to study his book, the originality of his conceptions, and the obvious application of which some of his principles admit to the peculiarities of the case now before us, will of themselves suggest a sufficient apology.

APPENDIX,

often at the distance of a century, to the memory of an ingeni-
ous man, neglected by his contemporaries, and already in dan-
ger of being totally forgotten by posterity. To those whose
memory may lead them to study this work, the originality of
his conceptions, and the obvious application of which some of
his principles admit to the peculiarities of the case now before
us, will of course be evident. *Journal of the Medical Association*
discusses relative to James Mitchell.

APPENDIX

No. 1.

Extract of a Letter from Dr. Garrison to Mr. Stewart

Edinburgh, March 30, 1813.

A few days after your arrival in the country, I wrote
to a friend of mine near London, putting several questions re-
specting Mr. Mitchell, which I requested him to get answered by
himself, if possible. I wish to put in particular to be an-
swered as to the facts relative to his father's death, as when I
had myself seen of his conduct at the funeral, but had not re-
ceived from Mr. Mitchell's information on this point. I have
also observed that I have observed the following particu-
lar in his father's report: Mr. Mitchell was allowed to remain
in his father's bed. As soon as he felt in the evening, he
thought the time he had ever touched a dead woman be-
fore. He has been seen walking towards a dead woman be-
fore, and is particularly on his legs and hands, and feet, and
the face has shown that signs of great indignation at his
father's death.

When

APPENDIX, containing some additional Commu-
nications relative to JAMES MITCHELL.

NO. I.

Extract of a Letter from Dr GORDON to Mr STEWART.

Edinburgh, March 30. 1812.

..... A few days after you returned to the country, I wrote to a friend of mine near Forres, putting several queries respecting MITCHELL, which I requested him to get answered by Miss MITCHELL if possible. I wished in particular to be satisfied as to the lād's behaviour on his father's death, as what I had myself seen of his conduct at the funeral, had led me to differ from Mr GLENNIE's information on this point. From Miss MITCHELL *directly*, I have obtained the following curious particulars:

At his sister's request, MITCHELL was allowed to touch his father's body. As soon as he felt it, he shrunk away. This was the first time he had ever touched a dead *human* body. He has been seen amusing himself with a dead *fowl*; placing it repeatedly on its legs, and laughing when it fell.

He has not shewn any signs of grief in consequence of his father's death.

When

When a tailor was brought to make a suit of mournings for him, the boy took him into the apartment where his father had died, stretched his own head and neck backwards, pointed to the bed, and then conducted him to the church-yard, to the grave in which his father had been interred.

Being lately very ill, he was put into the same bed where his father had died. He would not lie a moment in it, but became quite peaceable when removed to another.

On one occasion, shortly after his father's death, discovering that his mother was unwell, and in bed, he was observed to weep.

Three months after the death of his father, a clergyman being in the house, on a Sunday evening, he pointed to his father's Bible, and then made a sign that the family should kneel.

Lately, his mother being from home, his sister allayed the anxiety he shewed for her return, by laying his head gently down on a pillow, once for each night his mother was still to be away; implying, that he would sleep so many times before her return *.

Whilst

* It would appear that this is the sign which Miss MITCHELL usually employs on similar occasions; and the ready interpretation of it by her brother, implies, on his part, no inconsiderable a share of shrewdness and of reflection. I copy the following parallel incident from a paper of Mr WARDROP's now before me. (D. S.)

“When his new clothes were all made, I solicited his father not to allow him to put them on, until I was present. It was signified to him accordingly, that in two days he should have them. This was done by shutting his eyes, and bending down his head twice, in order to intimate to him, that he must first have two sleeps.”

Whilst he was last in London, he happened to be in the house of a friend of his father's, who was in the habit of smoking; and a pipe being given him, he smoked it, and seemed much delighted. Some little time ago, a gentleman came on a visit to Ardcloch, who was also in the habit of smoking, and having tobacco, wished for a pipe. Miss MITCHELL gave the boy a halfpenny, and permitted him to smell the tobacco. He understood her signs; went out to a shoemaker's house in the neighbourhood, where pipes were to be had, and returned with one only in his hand. They suspected that he had another about him, and giving him to understand as much, he at last unbuttoned his waistcoat, and, laughing heartily, brought out the second pipe. The Sunday after this occurrence, when his sister gave him a halfpenny, as usual, in church, to put into the poors'-box, he immediately placed the halfpenny between his teeth, like a pipe, and laughed; but his sister checking him, he dropped it into the box.

He is still fond of the trick of locking people into the house or the stable. The patron of the parish, Mr DUNBAR BRODIE, (a gentleman who, I have reason to believe, has exceeded all others in acts of substantial kindness to the MITCHELL family), happening lately to visit Ardcloch, young MITCHELL contrived to make him a prisoner in this manner for a few minutes, laughing and jumping about all the while. On this particular occasion, it was noticed, that he applied his eye to an aperture in the door of the stable, as if to observe the motions of the person within. But although my friend writes me, that the other day upon holding out his hand to MITCHELL, the boy took hold of it; it cannot be conceived, that his sight should have suddenly so much improved, as to enable him to see any object in a dark stable, through a hole in the door, without the improvement being extremely obvious in other instances.

No. II.

*A Series of Questions respecting JAMES MITCHELL, proposed by Mr GLENNIE, and answered by Miss JANE MITCHELL *.*

Q. 1. Did Mr WARDROP operate on the eyes only? or on the ears also?

A. Mr WARDROP operated only on the right eye.

Q. 2. Were the drums of the ears pierced during the first or the second visit to London?

A. The drums of the ears were pierced during the first visit; the one by Mr ASTLEY COOPER, the other by the late Mr SAUNDERS of the London Dispensary.

Q. 3. Was it the case, that a musical instrument was playing in the room when his ears were pierced? and did he attend to it?

A. Some days after his ears were pierced, in a friend's house, he applied his ear to a violin, and the sound seemed to afford him pleasure †.

A.

* Although some of the information contained in this paper has been already anticipated in the communications of Dr GORDON and of Mr WARDROP, I have thought it proper to insert it here at full length; on account not only of the new light which it throws on various very interesting and important points, but of the high authority which it derives from Miss MITCHELL's name. (D. S.)

† The following particulars are mentioned by Mr WARDROP with respect to the state of MITCHELL's deafness at the time when he saw him in London. (D. S.)

... "When a ring of keys was given to him, he seized them with great avidity, and tried each separately, by suspending it loosely between two of his fingers,

Q. 4. Does he shew a strong desire to examine *all* objects by feeling?

A. He does: small objects he applies to his teeth, and feels with the tip of his tongue: larger objects he feels with his fingers carefully.

Q. 5. Is he much gratified with a *new* object?

A. Some objects do not seem to attract his attention; others do; and, where there is any mechanism, he endeavours, by handling them, to find it out: he discovers a particular fondness for locks and keys.

Q. 6. Does he discover any preference to the handling of smooth, rough, or pointed things?

A. If he does any, it is to smooth objects; when he gets a bit of rough wood, he endeavours to smooth it with his teeth, or causes the boy who attends him to smooth it with a knife.

Q. 7. Is he fond of bodily exertion?

A. He is extremely fond of running, walking, and riding.

H 2

Q. 8.

fingers, so as to allow it to vibrate freely; and after tingling all of them amongst his teeth in this manner, he generally selected one from the others, the sound of which seemed to please him most. This, indeed, was one of his most favourite amusements, and it was surprising how long it would arrest his attention, and with what eagerness he would on all occasions renew it. Mr BROUGHAM, having observed this circumstance, brought to him a musical snuff-box (a French trinket, containing a small musical instrument, which played airs by means of a spring), and placed it between his teeth. This seemed not only to excite his wonder, but to afford him exquisite delight, and his father and sister, who were present, remarked, that they had never seen him so much interested on any former occasion. Whilst the instrument continued to play, he kept it closely between his teeth, and even when the notes were ended, he continued to hold the box to his mouth, and to examine it minutely with his fingers, expressing by his gestures and by his countenance great curiosity."

Q. 8. Does he discover any sense of danger?

A. He discovers a sense of danger from fire, water, and sharp instruments.

Q. 9. Is it necessary to follow him, to keep him from harm?

A. It is only necessary to follow him, to prevent him from wandering.

Q. 10. Has he the knowledge of the use of things?

A. He knows the use of all common things, and is pleased when the use of any thing with which he is not acquainted is communicated to him.

Q. 11. Has he learned to do any kind of work?

A. He has not; further than to assist any of the farm-servants, for whom he may have conceived an attachment, in any work in which they may be engaged; particularly in cleaning the stable. He has endeavoured to repair breaches in the farm houses; and has attempted to build small houses with turf, leaving small openings resembling windows. Means have been used to teach him to make baskets; but he wants application to finish any thing.

Q. 12. Does he go from home? and is he fond of doing so?

A. His greatest pleasure seems to consist in wandering from home; but he always returns to his meals.

Q. 13. Is he uneasy when separated from his friends or attendants?

A. He discovers much uneasiness when separated from his friends, but does not, *now*, discover uneasiness when he changes his attendants, though he did, very early in life.

Q. 14. Does he love to associate with boys, and engage in play?

A. He never associates with boys, nor discovers any inclination to join in their amusements; but sometimes wishes the
boy

boy who attends him, to assist him in floating objects on the water, &c. He is, however, fond of young children, and takes them up in his arms.

Q. 15. Has he any uneasy feeling of his unfortunate situation?

A. He is sensible that his sight is imperfect, but does not discover any uneasy feeling of his situation.

Q. 16. Is he sensible of loud sounds? or of music?

A. Of *very* loud sounds he is, and seems uneasy at the time.

Q. 17. Does he apprehend the distinction of ranks in society?

A. He prefers persons who are well dressed, to those who are not; and would not willingly eat any food in the kitchen.

Q. 18. Has he the sense of ridicule?

A. In some degree he no doubt has; for instance, he takes pleasure in locking the door on people, and confining them; and, if treated in the same manner himself, seems amused, but if too much teased, is irritated.

Q. 19. Has he any devotional feelings?

A. He cannot possibly have any; but sits quietly in church, and kneels at family-prayers.

Q. 20. Has he the sense of right and wrong?

A. He undoubtedly has; and if gentle means are used to make him sensible of his having done wrong, he shews sorrow; but if harshly treated, is irritated.

NO. III.

THE foregoing sheets were not only printed but cast off before the following letter reached me. I subjoin it, without any comment, to the papers on the same subject which I have already laid before the Society; and have only to return my thanks to the Author, for the trouble he has so judiciously taken in recording a variety of minute details, which, to a superficial observer, may appear of trifling importance, but which will be considered in a very different light by all who are able to perceive, how strongly they bear on some of the most interesting questions which relate to the characteristical endowments of the Human Mind. Solitary as MITCHELL is in the midst of society, and confined, in his intercourse with the material world, within the narrowest conceivable limits; what a contrast does he exhibit,—in those rudiments of a rational and improvable nature, which we may trace even in his childish occupations and pastimes; and more particularly, in that stock of knowledge, scanty as it is, which he has been prompted to acquire by the impulse of his own spontaneous curiosity,—to the most sagacious of the lower animals, though surrounded with all the arts of civilized Man, and in the fullest possession of all the powers of external perception!

Letter

Letter from Dr GORDON to Mr STEWART.

Edinburgh, October 26. 1812.

My dear Sir,

During my residence in Morayshire, in August last, I did not fail to avail myself of my vicinity to Ardcloch, to visit the MITCHELL family. I have now to communicate to you, according to promise, the additional particulars respecting the subject of your memoir, which this visit has enabled me to collect. Some of these, you will easily perceive, are the result of my own observation on the boy himself; others were obtained from conversations with his eldest sister, whom I considered myself extremely fortunate in finding at home.

Previously to my visit, report had given me reason to expect, that I should find young MITCHELL's vision considerably improved; and I had not been long in his company, before I received very satisfactory proof that this was the case. Accordingly, I was led to examine his eyes with attention. Twelve months ago, as I have stated in the supplement to Professor GLENNIE's Account, one could perceive fragments of the lens very white and opaque, behind one-half of the pupil of each eye; and through the other half, a slighter opacity, or a sort of greyish appearance, in the parts situated farther back. The only change which I could discover, sufficient to account for the improvement which has taken place in his vision, is a diminution in this *slighter opacity* in both eyes. At present, there is a very white fragment of the lens, behind the upper half of the pupil of the right eye; and behind the lower half, the humours appear almost perfectly black. In the left eye, there is a dusky-white opacity behind the lower and inner half of the pupil; and behind the upper
and

and outer half, the humours are of a dark grey. The pupils contract and dilate as usual, on varying the quantity of light.

It is not easy to determine the exact degree of vision which he now enjoys. He sees those bodies only which have considerable brightness, or dark-coloured bodies placed on a bright ground. Consequently, of the various objects which usually surround him, he sees such only as are not very minute, and are placed within a short distance of his eyes. He could distinguish a crown-piece at the distance of two or three feet, and a person's face at the distance of six. But it seems obvious, that he does not perceive distinctly the *limits* of any object, however bright. For as soon as, guided by his own obscure vision, he has reached any thing with his hands, he no longer regards it with his eyes; but, as if he were yet totally blind, examines it solely with his fingers, tongue, lips, and nose.

That he can now distinguish differences in the kinds of light or in colours, seems very evident from an amusement in which, his sister told me, he sometimes indulges,—matching bodies of the same colour together. One day, for example, having a bunch of the flowers of wild mustard in his hand, he was observed to approach an officer who was near him, and, with a smile, placed the flowers in contact with the yellow part of his epaulette. Frequently, too, he is seen gathering in the fields a number of flowers of the same kind; the blue-bottle, for example, or the corn-poppy, or the marigold. It appears, however, that it is only the brighter colours he is capable of distinguishing; and of these *red* seems to be his favourite. A red object attracts his notice more, and he looks at it longer, than any other. Of the female parishioners who pass the manse on their road to church on Sunday, he is most apt to follow those who are dressed in red cloaks. Miss MIT-

CHELL

CHELL is of opinion, that he rather dislikes darkness ; for she has observed, that in moving from one part of the house to another after night has come on, his step is hurried ; and that he seems happy in reaching an apartment where there is a candle or a fire.

I observed, that he judges of the *direction* of a body by sight, with invariable accuracy ; but when an object whose real magnitude is not known to him, is placed before his eyes, he does not seem capable of estimating its *distance*, for the first time, with any degree of correctness. When I held a silver snuff-box about two feet from his face, he put out his hand exactly in the *direction* of the box, but moved it forwards very gradually until it came in contact with it. These circumstances are just what we should before-hand have expected to find ; and such also, I imagine, as may be remarked of all persons who are nearly blind, from a similar cause. The perception of the *direction* of bodies, which obviously depends on the particular part of the retina which is affected by the rays they emit, may be obtained equally (if the bodies be seen at all) from the weakest as from the most perfect vision. But MITCHELL's vision is too obscure to enable him to perceive those *minute differences in the colour and intensity of light*, by which persons having perfect sight, judge of the *relative distance* of luminous bodies.

On the whole, it appears obvious, that his sight, although yet far too imperfect for any attempt to address him in a *visible language*, is considerably improved within these last twelve months. Did the boy's dispositions admit of it, I should now be inclined to recommend still more earnestly than before, that another attempt should be made, to remove the cataracts from his eyes, and I am much less disposed than formerly to fear, that there is any radical imperfection in the optic nerves.

I

Here

Here it may not be improper to mention, that his sister is convinced, that he sees some objects better by moon-light, than during the day; a circumstance which seems to shew, that the opacity in his eyes is, as in other cases of cataract, merely local; so that when the pupil is much dilated, some rays of light reach the retina, through those more transparent parts of the humours which are farther distant from the axis of vision than the portion that is opaque.

His powers of *Hearing* remain as imperfect as ever. He still continues the practice of striking hard bodies against his teeth; but on further reflection, I think it not unlikely, that he may have another object in view in this experiment, besides that of procuring a sensation of sound. It is not at all improbable, that he discovers differences in the hardness of bodies in this manner. For there is a very distinct sensation felt towards the roots of the teeth themselves, when they are struck with a hard substance, resulting probably from an affection of the nerves of the membrane lining their inner cavity, and this sensation is different according to the hardness of the body. I have little doubt, that he could by this kind of feeling alone, very easily discover that lead was softer than steel, and steel harder than ivory; although all these substances would feel equally hard to his proper organs of touch. But even supposing that he does not avail himself of this sensation in the teeth themselves, it is probable that he strikes bodies against these organs, not so much to try whether they will cause sound at all, as to observe what *kind* of sounds they will emit; from which he may infer various other properties, which experience has taught him, are invariably connected with the particular sounds emitted.

His manner of examining any object that is new to him, is precisely the same now that it was four years ago, when I first saw him. When it is put into his hand, he runs it over with the
the

the points of his fingers ; then applies it to his mouth, and insinuates his tongue into all its inequalities, thus using it as an organ of Touch as well as Taste ; and, lastly, if it is a body that admits of it, he rattles it between his teeth. All this is done with singular rapidity. In fact, he loses but little time, in discovering, by the actual use of his organs of touch, taste, and smell, those qualities of bodies which we are content to infer from their visible appearance alone.

His sense of smell is unquestionably extremely acute. But I have not been able to learn any fact which could lead me to believe, that he could, in a room at least, discover a person by this sense alone, at the distance of twelve feet. It has been said, that he could follow the footsteps of another person for two miles, guided merely by smelling. But his sister assures me, that there is no foundation for this report. As to a power of determining the *direction* of an object, by some *distinct quality* in its odour, like that quality in sound by which we discover the direction of a sounding body, I could not perceive that he enjoyed any such power more than other persons. Indeed it is not likely that his faculties should differ in kind from our own, however much they may in number and degree *.

Since his sight has begun to improve, his excursions have become bolder and more extensive. He has sometimes wandered upwards

* Hic Adolescens, annum nunc agens xviii, et optimâ semper usus valetudine, vegetus est, et admodum robustus : quin et solitâ ætate pubescere visus est, partibus genitalibus ut in viris se habentibus ; neque dubitari potest quin brevi futurus sit *εὐπρωγός*, labiis et mento densâ jam inumbratis lanugine. Curiosè autem percontanti famulî et amici (masculini scilicet sexûs, quos solos de his rebus interrogare fas erat) omnes mihi testabantur nihil se observâsse, unde colligerent illum Veneris stimulum unquam sensisse, vel differentiæ sexûs notionem habuisse.

upwards of three miles from home. In all these expeditions, he proceeds in a great measure without a guide. But a boy is appointed to follow him, and keep him constantly in view ; and MITCHELL has the good sense, when he perceives any thing which he imagines to be a serious obstacle in his way, to wait until his little follower comes up to his assistance.

Lately, on the road near the manse, he met a person, riding on a horse which had been bought a few weeks before from his mother ; and on coming up to the animal, and feeling it, he seemed instantly to recognise it. The person immediately dismounted, in order to see how MITCHELL would behave ; and he was much amused to find, that he led the horse to his mother's stable, took off his saddle and bridle, put corn before him, and then withdrew, locking the door, and putting the key in his pocket.

When he wishes to communicate his ideas to any one near him, he uses *natural signs* ; and it is curious to observe, that most of these signs are addressed to the *sight* of those with whom he converses. This fact, it appears to me, shews very clearly, that he is aware that the powers of vision enjoyed by others are superior to his own ; and hence it is not unreasonable to hope, that his reflecting on his inferiority in this respect, when his reason has become more matured, may be the means of inducing him to submit, more placidly than he has hitherto done, to any endeavours for the improvement of his sight.

The following are a few examples of his signs. As soon as I began to examine his eyes, opposite to a window, he turned towards his sister, and stretched out his arm to its full extent laterally from his body. This, his sister informed me, is his usual sign for *London*. It is obviously the natural expression of distance ; and there is no need of pointing out the association which must have led him to use it on this occasion.

When

When he would express that he has been on horseback, he raises his foot, and brings the fingers of each hand together under the sole, in imitation of a stirrup. He places his hand on his mouth to signify his wish for food ; and when he would go to bed, he inclines his head sideways, as if to lay it on a pillow. When I arrived at Ardclach, young MITCHELL was not at home ; he had wandered to the shoemaker's, several hundred yards distant, where he was sitting in anxious expectation of a pair of new shoes. He was brought to the manse ; but after he had remained with us contentedly in the dining-room for about half-an-hour, he shewed an anxiety to get away ; and as he moved towards the door, he made use of a sign, from which no one could fail to discover whither he was going. It was, an exact imitation with his arms, of a shoemaker's motion when he pulls his thread.

All the signs employed by others in order to convey ideas to him, are addressed to his organs of *touch*. The most important, certainly, of these signs, are those which his sister has invented, to express her approbation or disapprobation, her assent or dissent. Miss MITCHELL's explanation of them is extremely satisfactory. Her brother has always been particularly attached to her, and she has always had most influence over him. He courts her good opinion. When she would signify to him her *highest approbation* of his conduct, she pats him much and cordially on the head, back, hand, or any other part of the body. This expression more sparingly and less fervently bestowed, signifies *simple assent* ; and she has only to refuse him these signs of her approbation entirely, and to repel him gently, to convey to him in the most effectual manner the notice of her *displeasure*.

When I suggested to Miss MITCHELL that it would be a highly interesting task, though doubtless a difficult and tedious one.

one, to teach her brother the meaning of *written words*, and mentioned briefly the outlines of a plan for that purpose; she expressed the utmost willingness to undertake any attempt of this kind, but anticipated the chief obstacle to the design from his want of application. Still I cannot help thinking, that this obstacle would probably diminish, as soon as he felt the magic power of a few words. Perhaps a trial might be made according to some such plan as the following.

First, young MITCHELL might be provided with a *horn-book*, on which the letters of the alphabet have been cut *in relief*. His sister might then begin, by tempting him with the prospect of some article of luxury, a piece of sugar for example, or a toy; but before gratifying him with the possession of it, she might take hold of his fore-finger, and conduct the point of it over all the letters composing the name of the article. This being frequently repeated, I have little doubt that he would soon point to the same letters when the same object was held in prospect; and at last, use the sign to procure the luxury. Were one step of this kind gained, it is not unreasonable to expect, that he might in time be made to understand the meaning of every word in our language, whether expressive of one or many ideas. Such words are of course excepted, as express ideas which he cannot possibly have experienced, from the imperfections of his sight and hearing. An advantage would attend the use of the *horn-book* proposed, that if the letters were painted black, MITCHELL might communicate by means of it with persons at a considerable distance. Supposing him to have acquired a language of this kind, two others, if necessary, might afterwards be connected with it. The first would consist in tracing the letters of words on the palm of his hand, with the point of one's finger; and the

the second, of the common speech on the fingers. But how great an acquisition would the principal language alone be, without any such auxiliaries !

Several circumstances occurred, during my visit, which shew, how perfectly susceptible he is of pleasure from joking, or playing with him, or from any thing ludicrous in the ideas communicated to him. Twice or thrice when his sister perceived that he was crossing the room to go away, she stepped to the door unperceived by him, to prevent his escape. When he found her there before him, he stepped back smiling, and seemed to take this sort of teasing in perfect good humour. I had given him my whip, with which he seemed pleased ; and once or twice his sister took him by surprise, and pulled it smartly out of his hand. He immediately shewed by his smiles that he knew who had robbed him ; and quickly catching his sister, he endeavoured to wrest the whip from her. The joke obviously amused him very much ; but Miss MITCHELL assured me, that it would have given him offence to have repeated it more frequently. An uncommonly large Newfoundland dog, belonging to a gentleman who accompanied me, had got into the room ; and nothing could be more expressive of surprise than young MITCHELL's countenance, when he first felt this animal. His sister observing this, immediately, with great quickness, took hold of his arm, and stretched it above his head, a sign which, it seems, he uses to denote *mounting a horse*. He instantly understood her meaning, and laughing, made a motion as if he would bestride the dog.

New clothes are still among MITCHELL's greatest sources of delight. After his measure has been taken, it would seem that every hour is full of anxiety until the new suit is in his possession.

possession. Nothing else appears to occupy his mind. He literally persecutes the tailor or the shoemaker, until his shoes or his coat is finished. He is their guest morning, noon, and night, until the last stitch is drawn.

Before leaving Ardclach, I took an opportunity of conversing very fully with Miss MITCHELL relative to her brother's conduct at the period of his father's death. Her answers to my inquiries on this point, corresponded exactly with the information she was so kind as communicate to me through my friend Mr LAUDER DICK of Relugas, in March last, and which I transmitted to you immediately on receiving it. She told me, that when her brother was permitted, by her direction, to touch his father's dead body, he shrunk from it with surprise, but without expressing the slightest signs of sorrow. She assures me also, that he felt the body after it was placed in the coffin, but without betraying any emotions of grief. On the evening, however, after her father's funeral, she herself saw him go down to the grave, and pat the turf with *both* his hands ; but whether he did this from affection, or intended it merely as an imitation of *beating down the turf*, she feels unable to decide, as she was not near enough to him to discern the expression of his countenance. For several days afterwards, it would appear that he returned repeatedly to the grave ; but gradually discontinued his visits. It is worthy of remark, however, that he has regularly attended every funeral that has since taken place in the same church-yard. The report, therefore, which I have stated at the conclusion of the supplement to Professor GLENNIE's Account, of his having shed tears over his father's grave, seems entirely without foundation. Miss MITCHELL authorises me to say, that neither on this nor on any other occasion, has she *herself* seen her brother shew any unequivocal marks of sorrow for his father's death. Yet her friend,

friend, the Reverend Mr CAMPBELL of Ardersier, lately informed her, that he saw her brother standing in the porch shedding tears, immediately after quitting the apartment in which his father's body was lying, previous to the funeral.

On the whole, however, I have not been able to discover the slightest reason for altering the opinion I have always entertained respecting the state of young MITCHELL's feelings on the day of the funeral. It was my strong conviction of the truth of this opinion, and thinking that Professor GLENNIE might have been furnished with the materials of his Account from some one who had not enjoyed the same opportunity of judging as myself, that led me, in the supplement to that Account, to doubt in some degree the accuracy of his information on this point. I have since found, however, that the whole of Professor GLENNIE's memoir was communicated by my friend Mr MACFARLANE, who was present, as well as myself, on that melancholy occasion. I would now observe, therefore, that though I am sorry to differ in opinion from a gentleman who has written so able a detail of some other parts of MITCHELL's history, my perfect knowledge of his candour and liberality embolden me to say, that I think he is mistaken in this particular; and that he has interpreted into expressions of grief in young MITCHELL, what were merely expressions of curiosity. On this subject I have communicated with my friends Mr LAUDER DICK of Relugas, Mr SMYTH of Earlsmill, and the medical attendant of the family, Mr STRAITH, surgeon at Forres,—gentlemen who also were present at the funeral, and who are more familiar even than I am with young MITCHELL's countenance and expression; and I find, that their opinion coincides exactly with mine. His motions at the coffin were equally visible to us all. But we did not attribute his placing his arms around it, to any emotion of sorrow, of which there appeared to us not the slightest

trace in his countenance, but to the same motive that led him the very next moment, to trip lightly towards us, and smilingly feel our clothes all over—the pleasure he experienced in the examination of objects that were new to him. My friend Mr LAUDER DICK, who has accompanied me in all my visits to Ardclach, and whose interest in the family, and kindness towards them, have been equally great, has favoured me with a few remarks, in a letter on this subject, which appear to me so just, that I shall take the liberty to quote them. “From my observations,” he writes, “made at the time, with all the attention which an extreme interest in the boy could excite, my opinion certainly is, that he was occupied with the coffin merely as being a body of a shape and surface different from any thing he had before met with; and that he betrayed no emotions of grief. When the procession moved onwards, all his gestures seemed more those of a playful boy in good spirits, than those of an afflicted youth, conscious of the awful change which had taken place upon his parent. As it is certain that he had never felt a dead body, nor had any opportunity of learning the object of burial before; it appears to me, that we cannot imagine him to have experienced any emotion of grief at his father’s funeral, without also supposing him to have had an innate idea of death.”

I am, my dear Sir, with great regard, yours truly,

JOHN GORDON.

Postscript.

Before sending you this letter, I transmitted a copy of it to Miss MITCHELL, for her perusal and correction; and I have much pleasure in adding the following extracts from her very obliging and satisfactory reply.

“Agreeably

“ Agreeably to your request, I have read your letter to Professor STEWART with as much attention as the short time it has been in my possession would admit of; and I certainly think you have stated those facts I informed you of, respecting my brother, most correctly.

“ My brother seems to be very well pleased with his change of residence *, and goes on much in the same way he did at Ardclach; that is to say, wandering for several miles round the small town we live in, or amusing himself by visiting the different carpenters’ or other tradesmens’ shops within his reach, and handling their implements, or trying to discover what they are engaged about. He has not yet discovered any anxiety to return to Ardclach, and is, I think, quite as happy as when there.”

* Mrs MITCHELL and her family have within these few months left Ardclach to reside at Nairn.

NO. IV.

WHILE employed in revising this concluding sheet, I had the pleasure of receiving the following letter from my friend Sir JAMES MACKINTOSH. It is unnecessary for me to mention the satisfaction I feel in attracting that notice to the Subject of my Memoir which his name cannot fail to ensure.

Letter from Sir JAMES MACKINTOSH to Mr STEWART.

Edinburgh, 5th November 1812.

My dear Sir,

In consequence of our conversation at Kinneil in August, I called on Mrs MITCHELL after my arrival in Nairnshire, and on the 9th of October I had an interview with JAMES MITCHELL, and his sister Miss MITCHELL, which lasted for several hours. I directed my inquiries to every point which seemed important, in the corporeal or mental state of this unfortunately interesting young man.

The result, however, is little more than a needless corroboration of the accounts which you have already received; especially those from Dr GORDON, who seems to have conducted his observations with much philosophical discernment and accuracy.

During the vacancy in his father's parish, the parishioners assembled on Sunday for public worship and mutual instruction, and one of the elders prayed with a loud and shrill voice, which was observed to give great uneasiness to MIT-

CHELL.

CHELL. This occurred several times, so that there appears no reason to consider it as an accidental coincidence.

Though his ordinary conduct be decorous, it seems to be influenced by habit and instruction rather than by feelings of delicacy. When the females of his family are undressing, he has been observed to turn aside. There are no males in the house. But in an opportunity which has lately occurred, he has been thought to shew a similar disposition in the case of males.

I have seldom seen an imperfection of the senses attended by so little an air of defect in the countenance. Singular as it may seem, I should even venture to call his features intelligent. He handled every part of the room in which we sat, with indications of an inquisitive mind.

His sister is a young woman of most pleasing appearance and manners, distinguished by a very uncommon degree of modesty, caution, and precision, in her accounts of him; and probably one of the most intelligent, as well as kindest companions, that ever guided a being doomed to such unusual, if not unexampled privations.

You will not think me fantastic for adding, that the habitual exercise of ingenious benevolence seems to me to have left its traces on her countenance, and to have bestowed on her naturally agreeable features, an expression more delightful than beauty. Her aversion from exaggeration, and her singular superiority to the pleasure of inspiring wonder, make it important to the purposes of Philosophy as well as of Humanity, that she should continue to attend her brother. Separation from her would indeed be an irreparable calamity to this unfortunate youth. By her own unaided ingenuity, she has conquered the obstacles which seemed for ever to preclude all intercourse between him and other minds; and what is still more important, by the firm and gentle exertion of her well-earned

ed ascendant over him, she spares him much of the pain which he must otherwise have suffered from the occasional violences of a temper irritated by a fruitless struggle to give utterance to his thoughts and wishes; disturbed still farther by the vehemence of those gestures which he employs to supply the deficiency of his signs, and released from that restraint on anger which we experience when we see and hear its excesses disapproved by our fellow-creatures.

I am, my dear Sir, with the truest esteem,

Yours most faithfully,

J. MACKINTOSH.

