

**THE PRACTICABILITY AND ADVANTAGES OF
WRITING AND PRINTING NATURAL SIGNS.**

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The author of the following thoughts has no intention, at present, of entering upon the discussion of the merits of the different means employed in educating the deaf mute, or of pronouncing which is the best. He has no hesitation, however, in saying, as the result of many years experience, that while he would carry the teaching of articulation, as far at least, if not farther, than the most sanguine supporters of it as an exclusive system would do, he would under no circumstances dispense with the use of Natural Signs in the class-room, in any stage of progress, because it is the most important avenue to the minds of the deaf and dumb ; but as the heading of the paper indicates, he would advocate the adoption of an additional phase of the sign-language, in deaf mute tuition, rather than drop a single word that would diminish its use.

It is not unlikely that this subject will be altogether new to the majority of readers, who are not teachers of deaf mutes ; but it may be that some who are teachers of deaf mutes, have never till now heard the subject referred to—and to those who have never passed a thought upon it at all, or who may not have seriously considered it, it may appear to be thoroughly visionary, and unworthy of a moment's attention. Should there be any such, who have read thus far, to them we would say and to every reader of these pages, that we earnestly request their attention to the end of our remarks on two grounds. Because the Natural Signs of the deaf mute *have been already written and printed, and practically tested in the school-room in the instruction of the deaf and dumb*—and because our present object is to bring up this subject before the minds of the teachers and other friends, that they may think upon it calmly and with a practical eye, viewing it in all its bearings, and thus pave the way for future action, so that through their united energies, the deaf mutes every-

where, whether educated or uneducated, may reap the advantages which books printed in their own natural language would assuredly confer.

The writer feels, however, that he has a special claim on the considerate attention of his fellow teachers, whether teaching by signs, or by articulation, from the fact that he has invited them to the contemplation of a subject that has occupied his thoughts and his action in the tuition of deaf-mutes for upwards of forty years, and also from the importance of it, as a vehicle of instruction, and one which would enable even the uneducated among them, where time of school-instruction has passed away, to read with intelligence for themselves, in the language of signs, the oracles of the living God.

MISTAKES ABOUT SIGNS.

In the discussions that have arisen regarding articulation, nothing has surprised the writer more than the reiterated assertion of those who exclude signs in teaching by articulation, that in the Deaf and Dumb Institutions, deaf mutes are taught signs, a complicated system of signs, that nobody can understand, but those who are instructed in their meaning; and this too notwithstanding the repeated explanations given that they are not taught signs at all, but simply the use of language *by signs*, which deaf mutes understand without any instruction because it is the natural expression of their thought. Now, it appears to the writer, that there are two grand errors with these friends of the deaf mute, which he will briefly notice, and which they would do well to consider.—These errors are :

1. As to what Natural Signs are.
2. That the use of signs in teaching is the cause of the difficulty, which the deaf and dumb have, in acquiring a knowledge of our language.

Let us then look for a little at these two errors. First then, these friends limit the action of Natural Signs, to the motions or sounds of animals, or the imitation of these. Now strictly and properly speaking, no animal in making these

sounds or motions is signing at all. No animal can sign. Signs whether arbitrary or natural are only made by an intelligent agent. Thus it is that the teacher imitates the motions he sees in nature, whether animate or inanimate, and by so doing gives a sign that infallibly leads to the object, or that of which he speaks by means of the sign—and whether describing nature around him, or his own feelings, or his knowledge of what he sees and hears, uses the language of pantomime direct, or substitutes a natural analogy, is using Natural Signs, and such a use of them can never be misunderstood, if distinctly made, and distinctly seen. No confusion of ideas can arise from their use, nor any difficulty of interpretation, and unless thoroughly perverted they can never retard the acquisition of language, or of articulation. If signing is a hindrance, the writer hesitates not to say that such signing is not natural, but a caricature of Nature. "So exhaustless are Natural Signs," that there is no propriety, but an incongruity, in using such a substitute.

The second error, arising out of the fact, that the use of signs tends to superinduce an incorrect use of our language, is another misapplication of the phrase Natural Signs.—Without enlarging on this idea, we simply remark that it is not the signs, but the current of the thoughts in the deaf mute that causes the difficulty—just the same as in the case of a hearing person learning a foreign language. The mode of expressing himself in his mother-tongue being different from the idiom of the language he is acquiring renders it the more difficult for him to use the language correctly, but time and study will rectify this, although the sound of his voice may for a long time tell that what he uses otherwise correctly, is not his mother-tongue. So with the deaf and dumb, modifying the characteristics, time and study, with a correct rendering of the meaning in Natural Signs, will enable them to write readily and correctly.

Thus it is that whether the friends, who favor articulation and discard signs speak of Natural Signs as limited in their expression, or of their use in teaching the deaf mute as retarding the acquisition of our language, they are totally at

variance with the facts of the case. Natural Signs are as extensive in their application as the thoughts of the mind itself, and instead of being a barrier in teaching articulation, or in acquiring the correct use of our language, they are and must be from their very nature, if properly used, the best and readiest instrument for carrying out articulation to the highest issues, and giving the deaf mute, not only the knowledge of our idiomatical peculiarities, but for storing his mind, with knowledge of every kind.

The writer is thus specific because he has been familiar with the art of teaching articulation for many years, and familiar with Natural Signs in teaching every thing that the deaf mute can be taught, not excepting music, and because notwithstanding what the Report of the Massachusetts Board of State Charities* says on this subject, and the action taken by the Directors of the Clarke Institution, the writer's experience tells him, that they are laboring under a very practical error on this interesting subject, in shutting up as it were under-lock and key and bolts and bars, by far the larger portion of the exhaustless signs of which the Board speaks, so that the deaf mutes, whom their generous benevolence is endeavouring to instruct, are excluded from their use and allowed only the use of a small part of these exhaustless stores, instead of full scope to the united influence of the whole.

SPECIAL EXPLANATION.

Signs, as contradistinguished from words, have in all ages been employed, under various forms, less or more, as a medium of special communication, but they have never been used in the ordinary, every day intercourse of mankind, . . . at by the deaf and dumb. It is true that among the tribes of Indians scattered over this continent, and other uncivilized or savage inhabitants of the earth, signs are occasionally mingled with their words, to eke out the poverty of their language, or to give emphasis to their expression, and even a-

* See Fifth Annual Report (January 1869,) p. p. xc-xci.

mong civilized nations, signs may be resorted to by uneducated persons, as auxiliary to speech, or sometimes by educated men for the purpose of illustrating some particular point of difficult application, or for dramatic effect; nevertheless, it stands true that the deaf and dumb alone use signs as their only medium of communication when ignorant of written language. Signs are divided into two kinds, Natural and Arbitrary, but it is with Natural Signs in this paper that the writer has to do, and to prevent as far as he can any mistake as to his meaning, when he speaks of them, he now states that by Natural Signs he means *those signs which convey without fail to the mind of the deaf mute, the thoughts which the signer intends to express to him, and this without any previous acquaintance with each other*—and further such signs written or printed he also calls by the name of Natural Signs, because they can be understood, by means of a simple key, the use of which is easily acquired, as readily as the signs of living action. But further, as already indicated, Natural-Signs are capable of expressing every thought, and are therefore at least coextensive with words, so that the deaf mute can know the thoughts of another through the medium of signs, as correctly and as readily as the hearing can know them through the medium of words, which notwithstanding their inestimable importance, are simply Arbitrary Signs.

In the sense now explained, the writer uses the word signs, or the phrase Natural Signs in this paper, and when he means other signs than natural he uses the phrase Arbitrary Signs—and by arbitrary signs, he means those signs, the meaning of which cannot be understood without a previous understanding between the parties who use them. Natural Signs convey their meaning at first sight. Arbitrary Signs, at first sight, have no meaning at all.

SIGN-WRITING.

Written characters, or symbols, or signs have long been in use in the ages of the past in various countries, both barbarous and civilized, and under various forms, and are still

in use in China and Japan, but many of these were substantially the same as our own written or printed characters, merely arbitrary symbols or signs mutually agreed on as the expression of thought. The ancient Hieroglyphics of Egypt, it is true, were a mixed kind of signs, for the most part arbitrary, but they had also much of a natural cast about them, or an abridgement of the natural, yet, to understand their meaning, a key of more than ordinary construction was required to unlock their hidden mysteries.

The sign-writing, however, which the writer here presents for your consideration is more comprehensive in its range of operation, and more definite in its expression, and more certain of being understood by the deaf mutes, whom it is primarily and chiefly designed to serve, requiring much less time to be able to master it, than any other written characters, symbols, or signs, with which the writer is acquainted.

The writer does not know who originated the idea of writing the natural language of signs, or the language of the deaf mute—but at all events the idea occurred to him about forty years ago, and ever since he has put it in practice, less or more, as circumstances over which he had no control permitted. A good many years after he had reduced his idea to practice, he read of something of the kind having been attempted in France by the late Mr. Bebian, if he does not mistake: but he soon saw that its character was very circumscribed, and was simply, as far as he could see from the account he read, an extension of pictorial representation of actions as auxiliary to ordinary pictures that are used less or more in all our Institutions, giving distinct expression to the idea of the author, that farther extension of written symbols for the deaf mute was impracticable, so the writer understood him to say. He saw, however, that it was quite different from the one under consideration, which had been proved by the writer, years before, to be not only practicable, but a practical reality in very deed in his own experience in teaching the deaf and dumb.

The system of sign-writing as practised by the writer is capable of expressing any kind of signs, whether natural or

arbitrary—but it is in its application to Natural Signs that he is desirous in the remarks of this paper, to benefit the deaf and dumb. In his use of Natural Signs he takes the most prominent feature, attribute or function of the object, of which the spoken word to the hearing is the arbitrary sign, and this sign becomes the sign-name—and whether the deaf mute had or had not seen the same sign before, he would at once recognise the object which the sign indicated—or, if he had never seen, nor known the object before seeing the sign, he would whenever he saw it, at once see that this was what the sign previously given represented or expressed. Thus it is that a deaf mute whether educated or not, after some previous training to understand the way of reading the printed signs, could easily understand anything delineated in the form adopted by the writer. He has seen hearing children also read these signs, with a little training to understand the use of the key.

PROOFS OF ITS PRACTICABILITY.

In endeavouring to show that sign-writing is practicable, we shall adduce the evidences of it from three sources.

1. From the analogies of things common both to words and signs.
2. From the nature of the signs themselves.
3. From the writer's own experience.

1. *Analogy.*—Words and signs are alike as a medium of communication and the expression of thought on every subject, and they are alike evanescent, for no trace of their action is seen in the atmosphere—the memory alone retains the impression, either more or less enduring according to its power of retention, yet these evanescent invisible words have been reduced to a permanent and visible form by the pen and the press—and why should not signs, which though visible for a moment, just as the sounds of the words are audible, be made permanently visible through the same effective agency? Is it reasonable to consider the thing impracticable?

But again, words and signs are alike in the endless combination of which they are susceptible. Yet words with

countless varieties of form which they assume in the languages of the human race in their intercourse with one another, have not simply been reduced to permanence on a limited scale, but in the shape of books and other products of the press have been multiplied in unnumbered millions, and scattered over the face of the earth for the benefit of mankind. And why should not signs, through the same powerful medium of ever increasing strength, be not equally diffused for the benefit of the myriads of the deaf and dumb, scattered in mute isolation among the teeming millions of earth's more fortunate inhabitants ? What should make this less practicable than the other ?

But once more. The culminating point of analogy between words and signs, appears in the fact that all this endless variety in the combinations of sounds which obtains in the living voice is reduced to a few elementary sounds as the basis of the whole, and in like manner the numberless forms that motion assumes in the making of signs can be reduced to a few elementary lines. Seeing that this endless and evanescent variety of vocal expression has been reduced to its elements, and with appropriate names characterizing the sounds, has been reduced to a visible permanent form, is it unreasonable to suppose, nay is it not very natural to believe, that as speech with the same things in common with signs has been reduced to a visible permanent form, so signs can be reduced to a permanent visible form, if the elementary lines of motion, for there are such lines, were discovered and applied ? Such a view as here presented, if it does not necessarily prove or ensure the certainty of success to one who has not thought on the subject before, or but very partially at most—it should assuredly, at least, convince him that the practicability of sign-writing and printing, is not the idle day-dream of a speculative enthusiast.

2. *The Nature of the Signs.*—In addition to the above evidences of the practicability of sign-writing, the same thing may be reasonably inferred from the nature of the signs themselves, as a medium of communication with deaf mutes. The writer had not been long engaged in teaching the deaf and

dumb, when the idea of this subject occurred to him. As he found that he could very readily converse with deaf mutes whether old or young, educated, or ignorant of language, on any subject by means of Natural Signs, without spelling or uttering a word, it appeared to him, that as they knew by the motions of his hands, and the expression of his countenance what his thoughts were, and vice versa—if the atmosphere were capable of retaining for a little a trace of the lines thus drawn, as sand retains for a while any lines drawn upon it, then these lines of motion as traced in the air, and visible, would indicate the thoughts that the motions of the hands expressed to the deaf mute as he followed these motions with his eye, and could be reproduced, as long as the original impression remained. Or the same idea may be thus represented. If the motions of the hands in signing exhibited a luminous though evanescent track in the air, such as phosphorus does on a wall, or the track of lightning as it sweeps along—the lines, thus seen would indicate at once the rate of motion with which they were drawn, and the forms which they assumed. Thus reasoning, the writer, at once saw that all that was necessary was *a Natural Sign for the rate or degrees of motion, and the direction of motion, or its pathway*, so to speak, which would certainly be indicated in the air, if the lines of motion could be traced there, as on the sand of the sea-shore; and so he put it to the test. With the dust of the earth for his table, and his finger or a stick for his pencil, he drew the required lines in various forms, and found what he was in search of. He has done the same thing on the black board with chalk, on the slate with the pencil, and on paper with the pencil and the pen. In fact he found that he had discovered nothing new, for every body, less or more, had seen and done the same kind of thing before times without number, but the application of it never entered his mind before he had been led to think of the subject, as he has now described, and he has to a greater or less extent, as far as circumstances permitted, ever since had the satisfaction of seeing his system of sign-writing not only readily understood by the deaf mute, but hearing and speaking children

were also able to read it, as already referred to, and in fact any one disposed to look at it, with a view to understand it could not fail with the knowledge of its key or alphabet, as it may be called, in a short time to master its leading feature, so as to read without difficulty. Why then it may here be asked has it not been put in practice everywhere? A satisfactory answer to this very natural question will be given ere we close.

3. *Experience*.—We have endeavoured to show the practicability of sign-writing on two grounds, viz : from the analogies between words and signs, in several ways, and from the nature of the signs themselves,—and now we will conduct you to the school-room, for a little to show you that sign-writing has been tested there sufficiently long; and by examples or illustrations sufficiently copious, to leave no doubt as to its practical character. The following are a few of the many illustrations that might be given to show that sign-writing is a practical reality, though we cannot here give any specimens of sign-writing itself, but only specimens of written sentences which have been translated into the sign-language, in the form of written signs, and from these by the contrary process of translation into words again.

We do not think it necessary to give a list of single words, or any combination of phrases, for sign-writing embraces every word and phrase, but will give a few examples in commands, narratives and questions, to show that it embraces also every form of speech. Under commands, we include every thing in the Imperative mood : under narratives, we include every sentence affirmative or negative: and by questions every thing in that form. As answers embrace these three forms, and every word or phrase, as the case may be, there is no need for any separate illustration of them.

To a few of the pupils in the Halifax School, who knew only a little of the key in the reading of signs, the writer wrote on the blackboard, a few days ago, a number of sentences in signs, which they managed to read and reproduce in active signs, to spell on their fingers, and write on their slates—and he noticed that some of them who could not

write sentences, in general, so correctly as others, took up the meaning from the signs sooner than the others did. In the specimens here given, those that are marked with an asterisk point out some of those, that the pupils were exercised in, and which they read from the written signs.

COMMANDS.

- Go for my hat.
- * Touch a book.
- Come and see.
- * Shake the desk.
- Bid your sister go to the well for water.
- Attend Church regularly and devoutly.
- Take a book and give it to John to read.
- * Take a book and shake it, for a little while.
- * Bring a marble and a bird to me.
- * Bring an inkstand, a ruler, and a book to James.
- * Tell Alexander, Clarence, and James to come to me.

NARRATIVES.

- There is a cat playing with a ball.
- There was a man killed by the falling of a house.
- * The boys are out digging in the garden.
- * The girls are not walking in the garden.
- Jesus Christ died on the cross to save sinners.
- * God made man and woman.
- It is not John's intention to sail till to-morrow.
- * Alfred did not take your spectacles to Alexander.
- There are many discussions in public assemblies.
- * Janet took your spectacles to Sophia.
- * The boys and girls in the school are not all in Arithmetic.

QUESTIONS.

- What is your name?
- How old are you?
- Where is your father?
- How many fingers have you?
- Have you ever seen New York?
- When are you going home?
- Were you in Church last Sabbath?
- Were you sick the week before last?
- How did you know that David killed Goliath?
- Who told you about Jesus Christ?
- How are you and I to be saved by Jesus Christ?

As a small specimen illustrative of the ability to read consecutive thought in sign-writing, we will mention the following facts, which occur to the writer's mind as specially interesting and significant.

ILLUSTRATIVE FACTS.

About twenty-five years ago, in order to test the ability of a deaf and dumb boy about twelve years old, who had not been long at school, to read sign-writing, the writer took his slate, and drew the lines upon it to represent, or wrote in signs, the following sublime passage in the prophecies of Habakkuk, Chap. III. Verse 10, substituting the word God instead of the pronoun.

"The mountains saw thee, and they trembled, the overflowing of the water passed by, the deep uttered his voice, and lifted up his hands on high."

The boy understood the use of the key in reading sign-writing, and could do a number of things from written signs and translate a few of them into words, but he had no knowledge of the meaning of this verse, for he did not know the meaning of any of the words in it except perhaps one or two. Indeed he never saw the verse till he saw it in written signs, so far as the writer knew, at all events he knew nothing of its meaning. The writer put the slate before him and asked him what it meant; he looked at it for a little, and then very distinctly told him by signs, in living action, what was written on the slate. The writer saw at once that he understood the meaning. Let him, however, not be misunderstood here. He does not mean to say, and we do not say, that the boy apprehended its meaning as well as we believe the readers of this paper do, any more than we would say that they comprehend so fully the meaning of these words, as to enter into the feelings which the illustrious Hebrew experienced, when, though familiar with divine manifestations of "terror and glory," he said, in view of the "terrible sight," "I exceedingly fear and quake" and to which, no doubt, the prophet refers in the beginning of the verse; but we do say that he apprehended its meaning, as well as any boy of his age could do though endowed with hearing and speech. But who among us can comprehend the realities which the above verse so graphically describes? We can all understand according to our intelligence the-

meaning of the word God, or to whom the word applies, but we cannot fully comprehend him who bears the name. Who can by searching find out God? So in the case of the boy in his understanding of the above verse.

About eight years after, in the course of his daily teaching, the writer took the slate of a boy who had been a while longer at school than the boy already noticed, and wrote on it in sign-writing a message or order to the following effect. "Go to the house and bring from my bed-room, a Gaelic New Testament, which is on the top of a bureau." The house was about twenty yards distant from the school-room, there were other books on the bureau, besides the one he was sent for. The writer put down the slate before him without writing a word or making a sign. The boy looked at it for a little and went out, and in a few minutes he returned with an English New Testament. The writer said, "that is not the book" He looked disappointed and so did the writer; but knowing so well the boy's singular correctness in going on a message, he looked at the slate again and found that he had omitted the sign for the word *Gaelic*. He then supplied the omission, and said nothing but that the mistake was his and not the boy's. The boy looked at the correction, went away, and returned with the Gaelic New Testament. The writer then expressed his satisfaction by saying to the boy that he had done well. The satisfaction at the issue was mutual, and if the writer had ever doubted the sufficiency of sign-writing for practical purposes to the deaf mute, this omission or error of his, in the above incident, would have dissipated any doubt. Errors have often been instruments of advantages little dreamed of at the time, and in this case, the writer might have exclaimed like the celebrated Greek, "Eureka," as if it had been the first time that he had discovered its practical character. As it was, he was more encouraged to prosecute his design with sign-writing, that it might become a verity of real life, to others than himself in deaf-mute tuition.

Some years after the incident now narrated, he visited Dublin in Ireland, on the invitation of a lady who took a

great interest in the education of the deaf and dumb, and who, having heard of his action on the subject now under consideration, was desirous to see him. Accordingly he went, taking with him some manuscript sheets of sign-writing, as a specimen. The interview was very satisfactory, as she was desirous to see a Dictionary of Signs printed for the Deaf and Dumb, but it appeared to be one where the signs for the words would be given in words, such as the writer saw in a small volume by the Abbe De l'Epee, where the signs for the word was described in words, and which she showed him, and asked him what he thought of it. As he had not seen it before, he read a few of the descriptions, and found that they described the signs for the words very correctly, and that they coincided with the signs he made for the words himself, and would no doubt be useful to a certain extent; but as it required a good many words to describe a sign so that a person could make the sign from the description, it would make such a dictionary very bulky, and to many persons, a somewhat difficult process to make the very kind of motion required. Subsequently, he gave her a volume of signs, still in her possession, drawn by a professional hand, representing some hundreds of every kind of words both single and in composition, with the words, of which the sign was the explanation, written by himself. The lady endeavoured to interest parties in the matter so as to get a Dictionary of signs, such as this, published for the deaf and dumb, but none of them, with the exception of one or two, knew anything of signs and it was difficult to get them so interested as to incur the expense, so this matter has hung on in this state for years till he supposes it is forgotten there except by the lady herself, with whom he has had frequent communication since he came to this side of the Atlantic, urging him to get the work carried forward—but the same kind of difficulties are not wanting here—and till now, he has not felt encouraged to take any practical step in it. But since the discussions about teaching articulation, and discarding signs have arisen, he thought it might have its use, in one way or in another, to advance the cause of the deaf mute,

and has therefore given expression to his thoughts in this paper.

On the writer's return from Dublin, he took the slate of the boy noticed in the latter incident, and wrote on it in signs to the following effect:—

"I was in Dublin, and lived some days in the house of a lady who loves the deaf and dumb."

He set it before the boy, who looked at it for a moment or two and with a countenance indicating satisfaction said, he knew it. The writer told him to write in words what it meant—he did so very correctly, using the words *you were* as addressing him, and the word *dwelt* instead of *lived* which was in the mind of the writer when he wrote the signs.

We think it proper in this connexion to say that this boy who was the worst signer we ever saw, was just as remarkable for understanding what was said to him in signs. We never saw his superior in understanding signs, and seldom his equal, and though he used signs more readily after being at school, yet he was at no time an expert.

Friends of the deaf mute who discard signs, and speak of the deaf and dumb as expressing themselves "as monkeys do," as if to bring signs into contempt, we ask you solemnly to reflect now upon such utterances, though you may have read but carelessly the above incidents in the lives of these two boys. "Express themselves as monkeys do."* No monkey could look at the signs on the slate, as did the first boy, and reproduce in living action the signs which these written characters represented. No monkey could do as the second boy did, look at the slate and from the written signs execute the message which that boy did without making a sign at all, and no monkey could do as this boy also did, who after looking at the written signs on the slate, wrote under them in words the meaning of these signs. Signs then such as these, whether written or made in living action, are and must be essentially distinct from the natural sounds or motions of monkeys or any other irrational creature. They

* See Massachusetts Report already referred to, page xc.

are the expression of an intelligent agent, who can make the sounds and motions of animate and inanimate nature subserve his purpose, however obscured his mind may be, as in the case of an ignorant deaf mute, and in the hands of an intelligent teacher are made subservient to the temporal and eternal well-being of his interesting charge. But, perhaps after all, the reference to the monkeys may be rather a playful push of the hand, than an ill-natured thrust at the other friends of the deaf and dumb; at all events, it proves this, that it is dangerous even for intelligent and thoughtful adults, to play with edge-tools.

We think, however, that the depreciatory tone of the Report in several places when speaking of those who teach by signs, is decidedly wrong; because that men who have done so much to elevate the deaf and dumb, as the teachers of the United States have done, deserve something else, than depreciation, at the hands of every benevolent heart, even though they may have erred in using signs: and we consider it specially wrong, by dint of authority or otherwise, to stamp out the use of signs in the instruction of the deaf mute. We say these things the more readily, and advisedly, because the writer is not only a friend of articulation, but such a friend as would carry it to the greatest possible perfection, both in *viva voce* utterance, and lip-reading, with every one, whether congenital deaf mutes or semi-mutes, and because he knows, as a practical teacher, that the proper use of signs in teaching them articulation, will more thoroughly perfect them in it and in understanding spoken language, than any other way possibly can.

We have much pleasure in noticing here several pleasant interviews that we had with the respected President of the Directors of the Clarke Institution, Gardiner G. Hubbard, Esq. We sympathize with him in his action in this matter, believing that good will result from this step of these friends, chiefly as the means of extending the period of instruction, and of bringing the young deaf mute earlier under its elevating influence. In setting aside signs, however, our sympathy cannot go, as we told Mr. Hubbard. It is like cutting

off the right hand to do more work than with both hands. From what passed in our interviews, we feel assured that he would not speak, as the Report referred to speaks of the teachers who use signs in teaching. The writer told him that he gave up teaching articulation solely because the time of the deaf mute at school was so circumscribed, from one cause or another, that it required all the time and far more than could be got, to do for him what articulation could never do in a time so utterly inadequate to do the work that the deaf mute required; but with an adequately extended period of instruction, he would carry on articulation, as already intimated to its *Ultima Thule*, and he would as a true friend respectfully advise him to reconsider the subject of signs, and also the statements of Dr. Peet, Mr. Turner and Mr. Stone, on the subject: for they are worthy of your serious reconsideration.

The writer, in accordance with what he said at the outset, has not entered upon the discussion of articulation in its various bearings, but as his subject being that of signs, under a particular form, he has been necessarily led to refer to it, once and again, and express himself as he has done, because he is anxious to get the friends of Articulation interested in this subject, as well as others, and the more so, because he fully sympathises with them in their object, the teaching of articulation; but in excluding signs, as one of the instruments of tuition, and carrying it on by articulation, he has not the least sympathy, because he is convinced that by so doing, they are inflicting upon the deaf and dumb a grievous injury, which no subsequent teaching can fully repair, and for which nothing else can compensate. *Teaching articulation and teaching by articulation are quite different things.* We need every instrumentality in the work of instruction, instead of excluding any one, and one too so important as signs; and as Natural Signs in their printed form would be not only beneficial to the articulating school, but could be used there without diminishing the *viva voce* utterance, whether on the part of the pupils or the teachers, we hope they will give this particular subject, their earnest consideration.

The writer presents here, an additional illustration that

was afforded him, in the Halifax school the day before posting this communication. He wrote, or roughly delineated in signs, the following passage in the prophesies of Isaiah, omitting the words, *then* and *for*, and placed it before two boys, who had been several years at school, and knew the passage of scripture, but never saw it in signs before. Isaiah XXXV 5, 6. "Then the eyes of the blind shall be opened, and the ears of the deaf shall be unstopped. Then shall the lame man leap as an hart, and the tongue of the dumb sing; for in the wilderness shall water break out, and streams in the desert."

The boys looked at the signs on the paper, but they had not gone over the half of it, when one of them said, "that is in the prophecies of Isaiah"—and each of them wrote from the signs in the following way. The one boy wrote:—

The blind shall see. The deaf shall hear.
 The lame shall jump like a deer.
 The dumb shall sing.
 The water shall spring up in the wilderness, and streams in the desert.

He was told to look at the paper again, and write it down as the signs stood and he wrote thus:—

The eyes of the blind opened shall be.
 The ears of the deaf unstopped shall be.
 Jump like a deer the lame man shall.
 The tongue of the dumb sing shall.
 Waters spring up shall in the wilderness, and streams in the desert.

He was then desired to write it in the ordinary way as hearing people do, and he wrote as follows:

The eyes of the blind shall be opened, and the ears of the deaf shall be unstopped.
 The lame man shall jump like a deer, and the tongue of the dumb shall sing.
 Waters shall spring up in the wilderness, and streams in the desert.

The other boy wrote in the following way:—

The blind eyes shall be opened.
 The deaf ears shall be opened.
 The lame man shall jump like a deer.
 The dumb tongue shall sing.
 The water shall spring up in the wilderness.
 The streams shall in the desert.

To give some idea of the space occupied by these verses in signs, we may say that though roughly drawn, they occupied only about ten or twelve inches, but they could easily be made to occupy a half, or even a fourth less space, and be distinct enough to be easily read.

ADVANTAGES OF SIGN PRINTING.

We shall now proceed to show the advantages to be derived from sign-writing in three distinct aspects of its practical bearing.

1. As an instrument of instruction, and a test of comprehension.
2. In the saving of time and labor.
3. In having the Holy Scriptures, printed in signs for the use of the deaf and dumb.

1. *As an instrument and a test.* We think it requires only to be mentioned to meet with approval, that if we had books printed in the natural language of signs, applicable to the deaf mutes in every stage of progress, their teachers would then have the same kind of instrumentality which teachers of other languages than their mother-tongue have, viz : lessons in the foreign language, and in the language of the learner, so that the teacher has at once an instrument of instruction, and a test of his pupil's comprehension of the foreign tongue, and the idiom of both languages—thus enabling the pupil to translate from the one to the other, till he can speak and read it with equal readiness. Apply this to the teaching of the deaf and dumb, and extend the period of tuition, and you at once get rid of the difficulty which they experience in writing our language according to its idiom.

It is true that a teacher who knows his work, and can do it, could make any book subserve his purpose, or teach without a book, or make his own books, without having them printed in the ordinary form, to say nothing of printing in signs. But why should any teacher be obliged thus to act at such a sacrifice of time, when the time is but scanty enough, even with every possible facility at hand? The fact is, we require primary books of several steps, so that every

kind of words in ordinary use, every kind of phrase, and every kind of sentence would be found in them, and if these were printed in the ordinary form and also in the sign-language, we would have a practical substratum on which successfully to build, and so be able, in due course, to use ordinary books for practical reading as in ordinary schools; and besides these a dictionary of signs, or at least a vocabulary of signs of those words by which every other word in the language could be explained in words, and by which the deaf mute could learn the meaning of the words from the signs thus furnished the deaf and dumb, and as far as human agency could effect it, would be more on a level with their hearing brethren.

2: *The saving of time and labor.* The importance of sign-writing will still further appear, in the saving of time and labor, if we carefully consider the following facts, which teachers of deaf mutes so well-know from experience, but which we are desirous that every friend of the deaf mute should be acquainted with, for our experience tells us that comparatively few have any correct idea of the nature of the work that the teacher has to do—and yet it is by having these friends everywhere brought to reflect on what the condition of the uninstructed deaf and dumb really is, that we can ultimately have sufficient time, and sufficient appliances to carry on the work of their instruction.

First then—Children who have their hearing acquire the art of speaking or the use of their mother-tongue, as it is very aptly termed, insensibly, and without any special effort. Parents and friends, and every one with whom they are brought into contact, are each and every one of them in turn, instructors to the baby-speaker, and supply their quota of speech to the young learner amidst the realities of life, and thus the child is trained not only to utter the words of its thousand teachers, but to see the illustrations of the meaning of the words in their application, on the spot, in myriads of instances, so that the memory and the judgment, from the first efforts to speak, are constantly exercised by the living realities of existence around it. Thus, the use of lan-

guage whereby the child can tell its wants and understand what is spoken to it, is in countless ways taught and learned, without any exhausting labor on the part of the child or its instructor, and the foundation laid for future progress when he enters the school-room. Though these are facts that every one can see, it is passing strange that so few persons are found who reflect on them, when they speak of teaching the deaf and dumb, or of their progress in the acquisition of language.

But again, the importance of sign-writing will further appear, when we reflect that the deaf and dumb are deprived of all the facilities of their hearing brethren and sisters, though living in the midst of the same society, and this solely because they cannot hear at all, or not sufficiently so as to enable them to imitate others as the hearing do. The sad blank which this causes in their minds, the loss that deafness superinduces is so emphatically great, except in highly favorable circumstances, that it is difficult for any but teachers fully to realize it, but others, if they would properly reflect, could realize it much more than they do. Now the great void must be filled, and this loss must be make up, as far as human power can do so; but to do this time and labor are necessary; and surely every thing that tends to diminish these during the period of tuition, however extended that time may be, should be made available—hence the advantage of sign-writing in annihilating the drudgery of labor and saving the time now employed from the want of proper facilities in teaching, and virtually adding to the term of instruction.

Yet once more, the importance of sign-writing will fully appear when we also consider the common but very important fact, that while generally speaking every child has hundreds, if not thousands of instructors, to enable it to acquire and with facility to apply correctly the language of society, his brother deaf mutes have in the Institutions but one teacher to many pupils, and yet this solitary instructor has to do the work for these pupils, that parents, friends and society in general do for every hearing child. We see then that the

hearing child has, before he goes to school, a knowledge of language, and correctness in applying it, which his less-gifted brother fails to acquire, unless he is continued sufficiently long at school and at the cost of an amount of labor to his teacher and himself which must be seen to be fully understood. But if any one would reflect on these facts, he would be able to have some idea of the numberless illustrations of the meaning of every word and its application to the realities of life, which the teacher has to exemplify in every form and variety which real life supplies, in order that he may be to the deaf mute, as far as possible, what every one with whom the hearing child comes into contact is to him in his insensibly gradual but sure progress in acquiring the knowledge of a living language, which his sense of hearing enables him so readily to recollect and apply with facility and accuracy—while his deaf brother at school guided by his teacher alone is endeavouring to acquire all that the other has acquired, before he goes to school, and also what the other learns at school. Thus it is, with a shorter time at school than other children enjoy, the deaf mute is expected, so far as facts say, to acquire all that they have before they go to school, and also what his hearing brother learns at school besides; but to be on a par, or something like it, with his hearing brother, the deaf mute would require, at least, double the time at school that he has hitherto enjoyed—to say nothing of higher benefits that other seminaries of learning than common schools confer.

Reflecting on the above statements, we think every one should see that the use of books printed in the sign-language would add very materially to the facilities of instruction, because every one in a class would have a teacher in the shape of a book, and the living teacher to superintend the whole, instead of having as now only one teacher to a class: and we desiderate from our readers a deliberate judgment on the above desirable issues.

3. *The Holy Scriptures printed.* Besides the advantages already specified, the importance of having the scriptures printed in signs for the special benefit of the deaf and dumb,

suggested itself to the writer long ago and we think it proper at this time to set the idea before you, as one worthy of your consideration. The deaf and dumb in the aggregate are in reality not a few. Taking into view the population of the earth, according to available statistics, their number cannot be less than half a million, exclusive of those who have been instructed or are in process of instruction; and half a million of immortal beings, such as they are, ignorant alike of God who made them and of their future destiny, is a fact of weighty import to a christian heart, and the question arises can any thing be done for them?

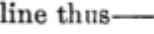
The deaf and dumb may be divided into three classes: such of them as are well-educated, such as are partially so, and such as have not been under instruction. To the well-educated we think the Bible printed in Natural Signs would be an interesting addition to their libraries, and a source of pleasure and profit to themselves, for they would be able to read in the printed page at sight and in their own language, without making a sign, the truths of our holy religion, and thus call up to mind their early days when ignorance shrouded their understanding, and by contrasting the past with the present, enable them more highly to value the inestimable blessings of education, to thank God and take courage. To the partially instructed, the Bible in the language of signs through the help of friends would enable them to enlarge their acquaintance with it, and distinctly to apprehend, by the blessing of God, the faith and hope of the Gospel, and so realize the peace which it brings, when many of them perhaps would not be able to derive any benefits from any other book printed in the ordinary way. To the uninstructed, whose school-time has not yet arrived, it may be made interesting by parents and friends in various ways—and to the uninstructed whose school-days have passed away, so far as learning spoken language is concerned,—a few weeks at school, simply to give them some idea of God whose *word* the Bible is, and a general idea of its scope, and the use of the key to unlock its treasures would enable them to gather up some if not all of its interesting and important truths;

in due time, and by the grace of God through the aid of Christian friends, they might *grow* in grace and in the knowledge of our Lord and Saviour Jesus Christ.

The Bible in signs could be printed in whole, or in such parts as circumstances and the condition of the parties for whom it is specially intended and Christian wisdom directed. It must also be borne in mind that the Bible in signs, translated from the original languages, would be patent to the deaf and dumb of every nation under heaven, and as the Christian missionary finds his way into every country with the Bible in his hand in the language of its people, the Bible of signs in his hand to the deaf mutes there, would be understood by them, as it would be here by our own deaf mutes, for the language of Natural Signs is known all the world over. This partial outline of what we consider could be effected, through the Bible signs for the benefit of the deaf and dumb we submit to the reflection of our readers.

It would have afforded the writer much pleasure, if he had been able to present to you, here and now, some specimens of sign-writing, so that you could have seen it for yourselves and have been able to find that there is in it something else than a combination of unmeaning lines. This however could not have been done without diagrams, which involved additional expense, and required time; but we trust that we shall yet enjoy this mutual satisfaction. Meanwhile, give the subject your best attention, and we feel assured that none of us will be disappointed with the result, whatever difficulties or doubts may present themselves at first sight.

We will give you, however the main lines of the *key*, which perhaps may induce some one to endeavor to realize a little of the reality of sign-writing. By the process already described the writer found that a line slowly drawn, with a little pressure, exhibited an appearance like this; —, a thick line of uniform width, and a line quickly drawn appeared broad or heavy at the beginning and tapering to the end, like the point of admiration without the dot or as a comet in the heavens: varying according to the force and rapidity with which it was drawn. He then adopted the heavy line, as the na-

tural sign for *slow*, and the tapering line for *fast*. The ordinary lines of motion in signing are indicated by a lighter line thus——, the direction of motion by a dotted line ....., or an arrow head, or by the finger pointing, as circumstances directed. A zigzag line indicates all vibrating motions, such as quivering, shivering, swinging, or shaking of any degree, varying in lightness or heaviness, as the case might be.

As the sign for *fast* and *slow* embodies the principle which all the *motions* in signing would assume, according to their impulse and rapidity, therefore with this as a *basis* we can find the material for extended application. Thus a few dots such as these . . . would represent walking footsteps, and a mark, such as the point of admiration without the dot, or the comma, placed horizontally in this way , , , would indicate running footsteps. By observing the foot-prints of animals in walking or running, or your own footsteps, you will see that they assume as a rule these appearances, less or more, as the path is soft or hard. In like manner by observing the effects of the motions of the fingers or the hand in striking, tapping, patting, &c., on a soft medium, or on the blackboard or slate with the chalk or pencil, or with the pen on paper as in forming capital letters, you will see substantially the same thing.

With these lines and their endless progeny, and the upper half of the body chiefly the head, to represent the *signer*, two of the fingers to represent legs, by a very natural analogy the whole system of signing, however complicated it may appear, could be reduced to a written or printed form. Questions will naturally arise on points not adverted to here, for we make no profession in these few lines to solve every difficulty, but we have stated some things that any one may try to put in practice, so far at least. We trust that a future day may enable the writer to gratify both his readers and himself at the same time: meanwhile study, and try, and trust.

We trust that what we have said since we put the question, supposed to be asked by some one, will be deemed a satisfactory reply.

Friends of the deaf mute: we have now set before you, on this interesting and important subject, three grounds of proof to show that it is practicable, viz: from the analogies between the nature of words and signs, from the nature of signs themselves, and also from the writer's own experience, believing not without good reason, we think, that what has been with him for many years a practical matter, could also be made practical by others. We have also shown the advantages that would arise from the use of sign-writing in three ways:—as an instrument of instruction and a test of comprehension, in saving time and labor, and in the printing of Scripture in signs for the use of the deaf and dumb—and we have endeavored so far, to forge a key for your use a little way, in trying to find out what this sign-writing is. This is not a subject of *fancy* but of *fact*, and it requires to be considered not merely with a critical eye, but with a heart beating in unison with that sympathy which feels for the deaf mute, and would elevate him to the highest point of intelligence which the nature of his case admits, and would do so by every instrumentality within his reach—but the critical eye and the sympathising heart must be joined to a will which nothing but the insurmountable can baffle. Friends of the deaf mute: let us have your criticism, severe if you like but candid and just, your heart and your will, and we can very easily tell you the issue. The writer claims no perfection in what he has done; for *humanum est errare*, but he claims for the sign-writing that he has practised, the capability of expressing the thoughts which the deaf mute, whether educated or uneducated, by means of a simple key can intelligently read as readily as any one who reads these pages. The importance of such an agency in the instruction of the deaf mute, whether taught to understand language by signs or by articulation, it would be difficult to over-estimate, and therefore in the hope that it will receive that attention which its importance demands the writer has cast it upon the water, with all its imperfection, committing it to the care of HIM who doth all things well, who made the deaf to hear and the dumb to speak.