**To the directors of the institutions for the blind, in Great Britain and Ireland / [John Alston].**

GLASGOW 17 DEC 1841.

MR ALSTON'S IMPROVED METHOD OF WRITING FOR THE BLIND.

TO THE

# DIRECTORS

OF THE

# INSTITUTIONS FOR THE BLIND,

IN

## GREAT BRITAIN AND IRELAND.

AT THE GLASGOW INSTITUTION.

NO. 1.

WHEN WISDOM ENTERETH INTO THINE HEART
AND KNOWLEDGE IS PLEASANT UNTO THY SOU
DISCRETION SHALL PRESERVE THEE, UNDERSTAN
ING SHALL KEEP THEE.

NO. 2.

HAPPY IS THE MAN THAT FINDETH
WISDOM, AND THE MAN THAT GETTETH
UNDERSTANDING. FOR THE MERCHAN
ISE OF IT IS BETTER THAN THE MER
CHANDISE OF SILVER, AND THE GAI
THEREOF THAN FINE GOLD.

Letter

TO THE

# DIRECTORS OF THE INSTITUTIONS FOR THE BLIND,

## IN GREAT BRITAIN AND IRELAND.

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GENTLEMEN,

IT seems strange that in the mind of any one there should exist a doubt respecting the expediency of educating the Blind, or that it should be supposed enough has been done for them, when their bodily wants have been supplied.

They are rational and immortal beings, and capable of all the enjoyments which others feel from the cultivation of their moral and intellectual powers. It therefore becomes not only a reasonable but incumbent duty, to employ every means for cultivating the moral and intellectual faculties of the unfortunates deprived of sight, and storing their minds with general knowledge.

Should it be objected that they are incapable of receiving instruction through the same means by which it is communicated to others, the objection only proves the necessity of endeavouring to devise such methods of conveying instruction as may be best suited to their particular circumstances.

The ear has been happily called the vestibule of the soul, and the annals of the Blind who have become illustrious by their mental acquirements confirm the remark, for they show, that few intellectual studies are inaccessible to them. It has always been observed, and has received a kind of universal assent among those who have associated much with them, that in certain branches of study they have a facility which others rarely possess. But in order to assist them, it is necessary that the other senses should supply the want of the eye. If, for instance, we wish to teach them the art of reading, letters must be prepared palpable to their touch. If we wish to communicate to them a knowledge of the surface of the earth, globes and maps must be prepared, with the divisions, &c. &c., in relief. Knowledge obtained in this way must of course be acquired much more slowly than that acquired by sight; but this very circumstance should excite to more vigorous efforts for the removal, as far as possible, of every obstacle that retards its progress.

The attention of those interested in the education of the Blind has been for a considerable time directed to this subject. The invention of characters in relief was amongst the earliest measures adopted for their instruction; and it is worthy of remark, that the letters chosen were of the Illyrian or Sclavonian alphabet modified. This alphabet was preferred on account of the square form of the letters, which it was thought would be more obvious to the touch than the Roman character; but it was soon abandoned, the square or angular form of the letters not having afforded the advantages that were expected from it.

Moveable letters were next tried, which were placed in small tablets of wood, and made to slide in grooves; and moveable leaden characters were afterwards cast for the use of the Blind at Paris, but the work was attended with difficulties and expenses which the inventor was not prepared to meet.

Large pin cushions were also brought into use for the Blind, on which characters were formed with inverted needles. Various other attempts were made in wood and metal, and by knotted twine, till the time of Harvey, in 1784, who invented the art of printing in relief for the use of the Blind.

Mr. James Gall, of Edinburgh, in 1834, printed in an angular letter in relief, for the use of the Blind, six elementary books, and the Gospel of St. John.

In France and America, the common letters were used. In Philadelphia, the Gospel of St. Mark was published in characters resembling script. In Boston, the New Testament, the Psalms and Hymns, with Murray's Grammar, and several other books, have been printed in a type of modified Italics.

With a view to give additional facility to the instruction of the Blind in this country, the Society of Arts, in Edinburgh, some years ago, offered a gold medal, value twenty sovereigns, for the best alphabet for the use of the Blind. Nineteen different alphabets were given in, fifteen of which were for competition, and all, with one or two exceptions, were in arbitrary characters. Amongst the number who gave in alphabets, were Mr. Gall, Mr. Lothian, Mr. Richardson, the late Mr. Hay of Edinburgh, and the late Dr. Fry of London. Although I was aware of such an offer, it did not occur to me to rank myself in the list of competitors; but, in September last, the Society of Arts did me the honour, in common with the Directors of the other Institutions for the Blind, to send me a copy of these alphabets lithographed, accompanied with a request, that I should state my opinion of them.

I had long been convinced, that arbitrary characters, however ingeniously constructed, threw unnecessary obstacles in the way of the Blind, even where they were not—as they were in nine cases out of ten—altogether impracticable; and that an assimilation of the alphabet of the Blind to that of the seeing, would, from its great simplicity, not only be free from this objection, but that in the case of those who have lost their sight after they were fa-

miliar with the Roman alphabet, it would be attended with a manifest and peculiar advantage ;* while its similarity to the books of the seeing, would enable blind children, at a distance from any Institution, to attend an ordinary school, without giving more trouble or inconvenience to the teacher, than any of his seeing pupils. Knowing that this principle had been practised in other countries, by printing in relief from the capitals of the Roman alphabet, I made inquiry whether the experiment had been attempted in our own, but without learning that it had. The late Dr. Fry of London, one of the competitors for the medal of the Society of Arts, having given in the capitals of the Roman alphabet, merely depriving the letters of the small strokes at their extremities, I resolved to make an experiment on his suggestion. I had the letters cut exactly as Dr. Fry had proposed, but found their faces were too broad and obtuse to be easily deciphered by the sense of touch. The faces of the letters were then rendered thinner and sharper, and the children at once perceived the advantage. I next had the same letters reduced considerably in size, and transposed them to prevent the children from naming them by rote, and the experiment was again completely successful. They were submitted to an additional reduction in size, without in the least diminishing the ease with which they were deciphered ; and, encouraged by the success of these trials, my great object now was to procure a fount of types on the model of the last mentioned experiment. This project implied an outlay of money for which I did not feel warranted to resort to the funds of the Institution, and I therefore made my first appeal to the Ladies of the city and neighbourhood, who are always foremost in objects of benevolence; and I am proud to acknowledge, that to their generous exertions I owe the origin of the Printing Fund, which enabled me to procure a Press, and the beautiful fount of types from which the accompanying specimen, No. I., is printed. The Printing-Office of the Glasgow Asylum, thanks to the success that has followed the whole experiment, is now in active and constant operation.

The facility with which the children read the books thus printed at the Institution Press, has been a subject of admiration to all who

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* The Glasgow Institution affords an interesting illustration of this at the present time. There is a young woman in the Asylum, who, after being educated in the Institution for the Deaf and Dumb, lost her sight, and thus became totally deaf, dumb, and blind. Having left the Deaf and Dumb Institution previously to the latter calamity befalling her, she remained for a considerable time with her relations in a state of utter helplessness, incapable of any rational intercourse with the external world, and sunk in the deepest despondency. She was accidentally discovered by her former benefactors, and placed in the Glasgow Asylum for the Blind, the inmates of which have been taught to communicate with the Deaf and Dumb; and she may be seen daily receiving instructions from one of the more advanced Blind children, tracing by the touch the shapes of the relieved Roman characters, which she still remembers, (and greatly prefers to the angular character, which she also understands to some extent,) and then indicating them by spelling the words on the fingers of her blind companions. The restoration of this interesting individual to intercourse with the rational world, is a source of exquisite pleasure to herself, and of gratification to all connected with her.

have witnessed it. The following description of an examination conducted in the presence of a respectable assembly, including a number of clergymen of various denominations, on the first of June, may suffice as an example:—" A number of the children read with great facility and correctness portions of the Gospel by Matthew, and the Book of Ruth, as well as elementary lessons in natural religion, &c. &c.; and, in order to test the process by ascertaining that it was not done by rote, in consequence of the passages of Scripture having been previously conned over, and being in any degree familiar to their minds, the following sentences were written in presence of the company, sent to the adjoining apartment, thrown off at the printing press, brought back, and laid before the children, with the intimation, that the first who was ready to read them should say so. The time was not counted, but it could not be more than a minute, or a minute and a half, when one of the boys, ten years of age, exclaimed, ' I have got it,' and read off the sentences with hardly the slightest hesitation. The sentences were these:—' The salvation of the soul is the one thing needful; Jesus Christ suffered and died to procure it for us; we owe to him, therefore, the liveliest gratitude of our hearts.' When it is considered that these sentences contain one hundred and thirty-three letters, and that in deciphering them, each letter must have been distinctly felt by the point of the finger, this will appear not a little surprising as a specimen of the degree in which the privation of one sense contributes happily to the perfecting of such others as can to any extent be made its substitute."—*Glasgow Herald.*

Although the children of our Institution—from the extreme delicacy of the sense of touch in the young—experience no difficulty in reading the size of print shown in specimen No. I., yet a larger and more distinct size of character is requisite for those farther advanced in life, or employed at trades, whose sense of touch is less acute; and such a fount of types we have accordingly procured, of which No. II. is a specimen. No time will be lost, therefore, in providing the Blind, both young and old, with books suited at once to their physical, intellectual, and moral necessities.

To revert, for a moment, before leaving this part of the subject, to the benevolent and praiseworthy exertions of the Society of Arts in Edinburgh, to procure a simple and practical style of printing for the Blind:—After receiving no fewer than nineteen different alphabets—eighteen of which were in an arbitrary character—and having corresponded on their relative merits with experienced and practical men in various parts of the country, their Committee reported, that from the details submitted to them, and especially from the communications of the Rev. Mr. Taylor and Dr. Carpenter—in connection with whose names the Committee were pleased to mention my own—they felt themselves warranted in concluding, that the arbitrary character, and the angular modification of the Roman alphabet, are open to serious objections, and that " the common Roman alphabet, as represented by the late

Dr. Fry, seems not only to be best adapted for teaching the Blind to read, but also as a medium of written correspondence. Hence," they continued, "there is every reason to believe, that it would be sooner brought into general use than any of the other characters in competition; that books printed with it would be more in demand, and, consequently, that their expense would be greatly diminished." The Committee, therefore, stated as their opinion, that the late Dr. Fry's communication is entitled to the Society's gold medal. The Society, on the 21st June, unanimously approved of their Committee's report. I need not state how much I agree with the sound practical views held by the Committee, and how much I approve of the award of the Society. To the former, however, I must be permitted to take one exception. The Committee in their report, suggested as a farther improvement, "both as respects economy in printing, and facility in reading, the adoption of the fretted (or dotted) surface of type recently introduced by Mr Gall in his angular character, and likewise his method of printing on both sides of the paper;" and the Society has given its sanction to the recommendation. All the printing in relief at the Glasgow Institution Press, is on one side of the paper only. Now, suppose that the spaces between the lines on one side were enlarged so as to admit of lines falling into the corresponding blanks on the other—which is the only possible method, be it remarked, of printing in relief on both sides of the paper—it is obvious, that what is gained in the second page is lost in the first. Where the economy of this process lies, I am unable to discover. But were it even advantageous, in an economical point of view, the confusion arising from this dove-tailing of the lines is found to be as embarrassing to the touch of the blind as it is to the eyes of the seeing; and there is in the process of printing in relief on both sides a danger which cannot be sufficiently obviated, of blunting the impressions of the types, and rendering the whole indistinct. But there is still another objection. The blind reader uses his right hand almost exclusively in manipulating the words, while he leans his left gently on that side of the book to keep it steady; and in the great majority of cases, the change from right to left, and *vice versa*, would be attended with very serious disadvantages. Such considerations are of momentous importance to the Blind, however trifling they may seem to those enjoying the use of their sight. With respect to the fretting or dotting of the surface of the letters, as affording facility in reading, it might be considered soon enough to make the experiment when we hear complaints of the difficulties attending the plain surface. But I submitted this principle to a practical test long before it was recommended by the Society; and the plain surface was fixed upon in compliance with the decided choice of the Blind children themselves.

The importance of furnishing this interesting class of our fellow-creatures with the means of moral and intellectual improvement, appears in a striking light, when we consider the proportion they

bear to the population generally. We have unfortunately no statistics of their number in this country, but we find in Prussia, that they amount to more than 13,000 souls in a population of twelve millions. It has been laid down as a general law, deduced from observation, that the proportion of blind persons decreases from the Equator towards the Poles. Their proportion to the whole population varies from local causes; thus, in Egypt, 1 to every 300 is supposed to be blind.

By a late census taken in Belgium, it is ascertained to be 1 to 1000; and some writers have supposed this to be the proportion in England; but this would give a large aggregate. The number of white persons blind in the several States and Territories of America, according to the fifth census in 1830, was 3974, in a population of 10,526,248, being in the ratio of 1 to 2649.

Were we to take the proportion of 1 to 2649 in a population of 25,000,000, being the number in Great Britain and Ireland, there would be 9437; but as this is very different from the results in the other countries just quoted, let us suppose the proportion to be 1 to 2000 in this country, which would give 12,500. But if we take into account the great numbers of blind that are seen at our fairs, and wandering about our streets, we are inclined to think that the above falls far short of the actual amount.

Having thus ascertained what may be the probable amount of the number of the blind in this country, let us next ascertain what has been done for their amelioration in their dark and solitary condition. The first Institution for the Blind in this country was that at Liverpool, in 1791; the next at Edinburgh, in 1792; Bristol, in 1793; Dublin, 1799; London, 1800; Norwich, 1805; Molyneux, Dublin, 1815; Glasgow, 1828; York, 1835; Belfast, 1835, and one at present erecting at Manchester. At Aberdeen, a large sum has been bequeathed for one, but the Trustees have been very tardy in carrying the benevolent testator's intention into operation. Within these few months, a Lady at Dundee has bequeathed £5000 for the erection of an Institution there.

The following are the numbers of the Blind in each Institution, as stated in their latest reports:—

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| London Institution contains | 122 |
| Liverpool | 108 |
| Edinburgh | 82 |
| Glasgow | 60 |
| Bristol, say | 40 |
| Norwich, say | 40 |
| Dublin | 39 |
| York | 19 |
| Belfast, say | 10 |
| Molyneux, Dublin | 30 |
| Limerick, no account | 0 |
| | 550 |

Thus, in a Blind population of 12,500 there are only 550 in all those Institutions in this country where any provision is made for their instruction in mechanical art, and for their moral and intellectual training. Of these there are only about fifty individuals, young and old, who can read, of whom about thirty only can read with any degree of correctness and fluency, and about twenty very imperfectly. A large proportion of the number is in the Glasgow Institution. But from the disposition now manifested by the Directors of the various Institutions which I have lately visited, there is no doubt that the number of readers will be very greatly increased in a short time. This small number of readers is as many as could be expected, when we bear in mind, that it is but a short time since books of any kind were provided for them, and that only in a very imperfect character. Happily this is no longer the case, as our recent experience has demonstrated that the literature now in progress for the Blind, is opening up to them an easy and inviting path to knowledge and intellectual enjoyment, without any of the obstacles which formerly obstructed their steps, except those inseparable from their unfortunate situation; above all, it is unfolding to their touch the pages of that blessed Volume, the principles of which afford the best security for their happiness here, and the surest foundation for their hopes of future and unclouded bliss. The advantage to the Blind in having books printed for their use, in a distinct and tangible character, is incalculable. Deprived of the delights of vision, the Blind are naturally inquisitive, and thrown more than others upon their mental resources for enjoyment. They will soon, therefore, become convinced of the advantages of this mode of instruction; it will afford them profitable and pleasurable occupation in their solitary hours; and, when visited by personal affliction, and confined to their beds, they will have this advantage over those in the enjoyment of their eye-sight, that in the darkest hour of the night they will be able to finger over the pages of their Bibles, and hold communion with their God.

Many were apprehensive, and myself among the number, that after this object was attained, a new difficulty would arise from the expense attending the printing; but this obstacle also has been happily surmounted, as we find that the books can be published at such a moderate charge, as to be accessible to children in very humble circumstances. At the same time, as there will be individuals really unable to purchase them, it is earnestly hoped that all Institutions for the Blind, and all persons who take an interest in the welfare of the Blind, will adopt measures to supply them with books gratuitously.

The printing for the Blind being in relief, it is obvious that their books must always be considerably larger than those for the seeing, and that any attempt to reduce them to ordinary limits, must be followed by a corresponding sacrifice of their adaptation to the touch of the reader. I am satisfied, from experience, as well as

from the opinion of those who have given much of their attention to the subject, that the annexed specimen, No. I., is on the smallest practicable scale.

With these facilities for the education of the Blind, the Directors of the Institutions should commence with children of from nine to ten years of age, and have them instructed in reading, grammar, arithmetic, &c., before they are put to trades suited to their capacities and strength; and those of superior abilities might be educated with the view of becoming useful in the instruction of others. It is of great importance that the Blind should be put under proper moral and intellectual training in early life, as it too often happens, when they are admitted at an advanced period, that they have acquired habits injurious to the well-being of our Institutions.

The neglect of the education of the indigent Blind has led to the wandering mendicant habits of thousands, who, had a little early care and attention been bestowed upon them, would have become useful both to themselves and to society. The surest method of suppressing public begging by the Blind, is to train them, when young, to provide for themselves.

The good effects of early admission have been fully proved in the Glasgow Asylum, where a number of the children, after going through a regular course of education, are now engaged in different occupations, such as weaving, basket-making, and twine-spinning, at which they earn from 9s. to 12s. per week, and are otherwise exemplary.

While we are encouraged by so many unquestionable proofs of success, there is every reason to hope, that our labours will be crowned with a still more abundant reward. It will be sufficient merely to allude to a few instances of Blind persons who attained to eminence and utility, in order to show what encouragement is given by past experience to any well-contrived scheme that may be adopted for their instruction.

John Stanley, organist of St. Andrew's, Holborn, London, was perhaps superior to most in knowledge of harmony, as he was equal to any of his contemporaries in practical ability.

The late Mr. Miller, of Edinburgh, was no less eminent as a teacher of music, than respected for his amiable and gentlemanlike manners.

Dr. Sanderson officiated as Professor of Mathematics in the University of Cambridge, with honour to himself, and advantage to his pupils.

Dr. Blacklock made attainments in polite literature which would have rendered his name illustrious in the history of his country, though the circumstances of his blindness had not added to his celebrity.

Dr. Moyes, too, is another example, still more recent, of the triumph of genius and industry over such a calamity. This gentleman, though he lost his sight so early in life, that he had no recol-

lection of having ever seen, became a proficient in several departments of natural philosophy, in which he gave lectures, and performed experiments, to the admiration of his pupils.

An old author makes mention of a blind man who used to be employed in conducting merchants through the deserts of Arabia; and a still more remarkable instance of a similar kind was exhibited in the person of John Metcalf, whose original business was that of a waggoner, but who ultimately became a projector and surveyor of high-ways, in which capacity he was extensively and creditably occupied in several parts of the West of England. When we regard the attainments of those blind men in circumstances so discouraging, what may we not hope from pupils of our Institutions trained among books, maps, and globes, adapted to their peculiar condition, with any other aid that ingenuity can invent, and liberal benevolence supply?

As reading by means of the touch is comparatively little known, it may be necessary to give a few directions how the pupils ought to proceed. The particular shape of each letter of the Alphabet should be thoroughly understood before the pupil be allowed to proceed farther. After he has attained this, words of two and three letters may be submitted to his touch. He should then be made to feel the words with two or three of his fingers, placing a finger on each of the letters. By this means he will be able to decipher two and three letters at once, which, by practice, will give a decided dexterity and fluency to his reading. On no account must he be allowed to read with the left hand. His finger nails ought to be kept short, to prevent him from injuring the surface of the letters.

That the Blind under your charge may soon attain to such a degree of proficiency in their education, as to encourage you to still farther exertions in their behalf, is the ardent wish of,

GENTLEMEN,

Your most obedient Servant,

JOHN ALSTON.

GLASGOW, *4th July*, 1837.

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