

# Southwestern Telegraph and Post.

WILLIAM D. COOKE,  
EDITOR & PROPRIETOR.

A FAMILY NEWSPAPER—NEUTRAL IN POLITICS.

TERMS,  
TWO DOLLARS PER ANNUM.

Devoted to all the Interests of The South, Literature, Education, Agriculture, News, the Markets, &c.

VOL. III.—NO. 31.

RALEIGH, NORTH CAROLINA, SATURDAY, JULY 8, 1854.

WHOLE NO. 135.

## INTERESTING DISCOURSE.

### THE BLIND, THEIR WORNS, AND WAYS.

From the Edinburgh Review.

"No man becomes blind," says the proverb, "by merely shutting his eyes; nor does a fool always see by opening them." Yet, in spite of Sancho and the proverb, when we think or reason about the blind, we are apt to judge of them as simply having their eyes shut, while we have ours open; and that therein lies the great difference between us. This is but a hundredth part of the difference.

"Eyes and No-eyes," says didactic Mr. Mayor, "made together a tour, in which Eyes saw everything, and No-eyes nothing; notwithstanding which stern truth No-eyes was not a blind man—certainly not Mr. Holman, who, in spite of total blindness, has visited and described half the known countries of the world. Let us further illustrate the case from life. Mr. Onesimus Smith has for a neighbor, Mr. Cassio Brown.—Mr. Smith caught a cold in his eyes some six or seven years after his first appearance in the Sutherland halls, and became totally blind; while his neighbor Brown's eyes are still at work, as keen as a hawk's, and scorn the aid of glasses. It is a winter evening, and Mr. Brown sits reading in his library. He has mastered three chapters of metaphysics, and now closes his eyes for a moment to ponder on the last and toughest. As his bodily eyes close his mental eyes open, and the very objects which he but now beheld, re-appear almost as they fade away. He still sees the printed page which he was reading a minute ago; opposite, over the fireplace, still appears to hang that incomparable likeness of himself as the President of the Little Pegglington Archery Club, in full uniform; he can still see the ruddy fire as well as hear it crackle, and the shadow on the wall still flickers in the uncertain light. On whichever of these points his thoughts chance to dwell—metaphysics, archery, his own noble mien as President, the price of coals, or the theory of shadows—of that very one may his eyes, though closely shut, still behold a visible symbol;—Non cernenda sibi lumina caecis vident."

But suppose Mr. O. Smith under precisely similar circumstances, save that he is blind. He, too, reads metaphysics, and is given to meditation. He leans back in his chair, and thinks on the last tough chapter. He has been blind since he was eight years old, and is now forty. He cannot remember, with any accuracy, the shapes of the objects of sight which greet the traveller through Little Pegglington, though he can with ease find his way through every part of the village. He knows where to turn off from the main road to the stile across the fields, precisely where the pump stands outside Firkins the grocer's door; and can even run without danger through the paternal mansion of the Smiths.—He is well acquainted with all the details of the room in which he sits, can find almost any one volume that is wanted, and is aware of the portrait over the fire-place. But when he leans back to muse on that last tough chapter of metaphysics, no sudden change takes place further than "this," that a minute ago he was reading, now he is thinking, or not, as the case may chance.

But no visions of shadows on the wall, of printed type, or page, or portrait, or of archery, are ready to spring up at a moment's notice to be scanned, or dismissed as intruders. Blank night shuts him in on all sides as he reads; it still shuts him in when he has ceased to read. Of the very light, in which live all the rest of the world, he most probably can form little, if any, conception, but from its general warmth as the sun greets him in his morning walk, or dies along the elm-tree avenue as he strolls at evening through his father's park.

If his thoughts stray for a moment from metaphysics to the crackling "sound" of his fire, his mental vision may at once form such ideas as it can of blazing coals, but it has no help in the conception from sight of the visible, external world. "The world of the blind," says Prescott, "is circumscribed by the little circle which they can span with their own arms. All beyond has for them no real existence." (Essays, p. 47.)

A man who has been blind from birth or even early childhood, fails in realising even what light is, much less a blazing flame. In the same way he fails to realise, even remotely, descriptions of the stars, the starry heavens at night, the sun, the moon. He has scarcely any idea of distance; such words as "the arched canopy of heaven," which seeing men call boundless, convey to him, after all, but a vague and dreamy idea of space and distance, but not even a faint conception of the glorious spectacle which delights his fellow-men.

Malebranche, when he wished to think intensely, used to close his window shutters in the day-time, excluding every ray of light; and for a like reason, Democritus is said to have put out his eyes, in order that he might philosophise the better; which latter story, however, it should be observed, though told by several ancient writers, is doubted by Cicero (De Fin. v. 29), and discredited by Flutarus (De Curiosis, c. 12). Speaking on this point, M. Dufan (the manager of the famous French Schools) says:—«Lorsque nous voulons ajouter accidentellement une note force habituelle d'attention, nous fermons les yeux, nous nous faisons artificiellement aveugles. Diderot tenait souvent en parlant les yeux éteints, c'est à parole avait alors, au dire de La Harpe, une élocution qui s'élevait quelquefois jusqu'au sublime.»

\* There is now living in the county of York a gentleman of fortune, who, though totally blind, is an expert archer; "so expert," says our informant, "who knows his well," "that out of twenty shots with the long bow, he was far my superior. His sense of hearing was so keen, that when a boy behind the target rang a bell, the blind archer knew precisely how to aim the shaft."

So again, of the sea he can form no accurate conception. "I have been told," said a poor blind man to us not long since, "that the ocean is like an immense green field; but of what use is that? How do I know what a field is, or what green is?" (A blind companion had used this simile in trying to make him understand what the sea was like.) The words "sea" and "sky" therefore do not convey to the blind man the impression they convey to us. His world, so to speak, is without sky or sea—but of such a world we can form no idea. The picture, therefore, now before Mr. Smith, however vague or imperfect, comes to him when summoned; but is the result rather of inward power than outward impression. He has no remembrance of the fire at which he burnt his fingers in the nursery some five and thirty years ago, save that it was hot and painful. He may remember sitting as a boy on the bench under the great walnut tree, but he cannot now call to mind even its color, shape or size; and still more faint is his remembrance of that striking portrait of Onesimus Smith, Esq., Esq., major in the Yorkshire Invincibles, which still hangs where his son was held up in nurse's arms to see it on the walnut wainscot of the dining room. But it must not be forgotten, that although the circle of which Prescott speaks is a narrow one, yet within that circuit the blind student has full sway, and that nothing is too distant for his intellect to gather even from far-off sources, and bring within his own range.—Whatever object, therefore, rises in his thoughts to interfere with the metaphysical musings, rises up from within; and the very fact of its being thus isolated from the external world tends to render the mental vision, if not keener, yet more concentrated; as the rays of common light gathered into a focus burn the hand on which the hottest July sun shines harmlessly.

And thus it happens; that—on whatever subject—the blind man thinks with greater concentration and individuality of purpose than the one who has eyes; if he loses the help of external objects in forming certain conceptions or ideas, he gains by not being liable to their intrusion in tangible and solid reality, when not wanted.

How imperfectly, and with what difficulty, the blind realize space and distance, even if their sight be restored, may be seen from the following most interesting case, extracted from the "Philosophical Transactions."

"The boy born blind, upon whom Cheselden so successfully operated, believed, when first he saw, that the objects touched his eyes as the things which he felt touched his skin; consequently he had no idea of distance. He did not know the form of any object, nor could he distinguish one figure from another, however different their object or size might be: when objects were shown to him which he had known formerly by the touch, he looked at them with attention, and observed them carefully, in order to know them again; but as he had too many objects to retain at once, he forgot the greater part of them; and when he first learned, as he said, to see and know objects, he forgot a thousand for one that he recollected. It was two months before he discovered that pictures represented solid bodies; until that time he had considered them as planes and surfaces differently colored, and diversified by a variety of shades; but when he began to conceive that these pictures represented solid bodies, in touching the canvass of a picture with his hand, he expected to find something in reality solid upon it; and he was much astonished when, on touching these parts which seemed round and unequal, he found them flat and smooth like the rest. He asked which was the sense that deceived him, the sight or the touch? There was shown to him a little portrait of his father, which was in the case of his mother's watch; he said that he knew very well that it was the resemblance of his father; but he asked, with great astonishment, how it was possible for so large a visage to be kept in so small a space? as that appeared to him as impossible as that a bushel could be contained in a pint."

It is but natural, therefore, to find that the blind, as a class, when once they have been roused to exertion, and their education has been really commenced, even in every-day practical life act with greater individuality and concentration of purpose than many cleverer friends who have eyes. If neglected, and left alone, they will doubtless stagnate in mind and body. The darkness surrounding the body seems to penetrate and pervade the mind; and not only does it appear to them that the day is over, and the night come when none may work, but that the sun is set, and that there can be no moon or stars to govern the night.

But only once convince the blind man that He who made the day made also the night—that very night in which he lives and is to work—show to him but one star of hope—point out to him but one work which he can and ought to do—make your demonstration practical, and show that the work proposed can be done by him—raise in short one spark of interest in what the hand or the head is to do, and it will soon be done with might and earnestness. The one solitary, dim spark will increase in brilliancy and size; soon other stars will dawn upon the sight where but now was darkness, as each heaviest, darkest cloud "unfolds her silver lining to the night," and the whole heaven silver glows with innumerable prints of fire.

But to return to the prose reality of the matter, and cut short our moonlit walk. When one point of interest is thoroughly roused in the

mind of a blind child of whatever age, the work quickly progresses, whatever that point of interest be. It may chance to be in the art of making a basket or a pair of shoes; in the learning of a psalm, or the art of using a knife; it may be of walking uprightly, or finding his way through the asylum into which he is received, from room to room of his new home. It matters little where the interest is first roused, provided it be real, and is at once cherished into active life and exertion. Much will depend on the habit and disposition of the learner, his previous mode of life, his parents' occupation, ignorance and poverty, neglect or care of their child.

One boy will, we find, learn in a month what it takes another a year to acquire, and which perhaps a third is never able to acquire. Outside one of the workshops in St. George's Fields is a long covered pathway for the use of the pupils in wet-weather, and on it may be often seen forty or fifty boys and men promening with as much ease and regularity in twos and threes as if they had the keenest sight. At a second glance, however, you will see that here and there in the crowd are one or two who, if they lose the arm of their companions, are at once in great difficulty.—The new comers are to be distinguished at the first glance. They stoop much, and walk with a shuffling, shuffling step, as if in fear and dread of suddenly meeting some unseen obstacle and so coming down with a crash. Yet it is not so with all the new comers. One, a smart active boy, who perhaps has had companions at home, learns in a few days the exact line of the covered way, never swerves from it, nor wanders into the wrong side of the path so as to interfere with the stream going in the other direction, though his fellow-pupil admitted at the same time cannot walk five yards alone without fear and trembling. Another leans to run, cleverly, from one angle of the building to another as if his fingers saw the handle of the door which they so readily and exactly find; while a fourth for many months never gets out of a zig-zag when he tries to walk alone, and is certain to fall if he attempts to run.

A similar difference exists among them in the acquirement of any art or knowledge. The blind boy generally excels in some one special department. Thus, the clever basket-maker is no musician; he persists in singing G while the organ strongly exhorts him to sing A, and yet bears no discord; while his companion, who entered the school with him, and can sing and play scales major and minor from A to Z, elaborates the tenth part of a basket in a month, and in great misery cuts his finger when he should be splitting a withy or clipping off an irregular and stray end at the edge of his work. But whichever phase of character A. or B. presents, the one favourite pursuit is carried on with zeal and diligence. If B. has strong intentions of outbasking all other frames of twigs, A. threatens to become a second Handel, and C., who prides himself on his powers of memory and mental calculation, bids fair to make mnemonic Major Beniowski retire from Bow Street in despair.\* Zeal and diligence may, therefore, be noticed as special characteristics of the blind who are being educated in a true sense. Many of them, too, possess that spark of what, at first sight, appears like vanity, but is an essential element in the composition of all men who attain any degree of skill, whether in the making of an osier basket or in ruling a great nation.

Every man, when once any one power of mind has been thoroughly trained and is ready for action—if he be really in earnest—feels and knows in his own heart that he possesses this power. He knows that he can do, and therefore does. Like the poet—the true poetes, there or maker—the energy divine within him shrined. Bid every glowing thought an active live."

In such as this appears as a high and noble self-consciousness of real living power within them, widely differing from mere empty vanity. Vanity sees nothing higher or greater than self. The true consciousness of power is not a confession of self, but of Him who made man, and placed in him the power to act and to feel conscious of the power; and that from him comes the power, whether to make baskets or to rule empires, to weave a door-mat, or

\* To melt the soul to very tears of joy,  
With never-ending waves of melody,  
From music's deep, unfeeling sea."

How nobly Milton realised this, and in his days of darkness felt and owned the presence of a Power greater than himself, may be seen in the following grand words:—"Et sane haud ultime Dei cura caeci sumus; qui nos, quominus quicquam aliud praeter ipsum cornere valeamus, eo clementius atque benignius respiciere dignatur."

This characteristic faculty is, according to Father Charlevoix, turned to good account in Japan, where the public records of the empire are committed to the memory by chosen blind men.

We are ourselves acquainted with an old blind mat-maker, who can repeat Thomson's "Seasons," and one or two other long poems, besides having an almost perfect ready knowledge of several of the Gospels. Very recently a son was added to a friend's family, and news of the birth was brought to the blind man, who instantly set about calculating how often the child's birthday would fall on a Monday up to the year 1900. In a short time he had accurately settled the matter. He is now, though upwards of sixty, trying to learn to read. But his fingers are become hard and horny with work.

\* There is in the heart of all man a working principle,—call it ambition, or vanity, or desire of distinction, the inseparable adjunct of our individuality and personal nature, and flowing from the same source as language,—the instinct and necessity in each man of declaring his particular existence, and thus of singularising himself." (Cherlock's Omnibus, p. 875.)

Nos ab injuriis hominum non modo incolomes, sed pene sacros divino lex reddidit, divinus favor; nec tam oculorum habitudine quam caecorum alarum umbra has nobis fecisse tenebras videtur; factas illustrare rursum interioris ac longe prestabilioris lumine haud raro solet."—(Defens. Secund.) That the gloom of the blind man's life should not be from mere dulness of vision, but rather "from the shadow of the Divine wings" which overshadow him, is indeed a conception worthy of Milton himself.

We do not, of course, assert that the blind, as a class, possess this noble self-consciousness in a greater degree than, but only in common with, other men. In them as in others empty vanity usurps its place; but on the whole we imagine that the higher tone is not unrequited, and is one secret of their success, though casual observers are apt to call it the result of mere cleverness.

There is an idea, we believe, extant among persons that the blind as a class are inferior in actual power of mind\* as well as in attainment; as if with their eyes their mental faculties had also become blinded—that a sort of blight had passed over the powers of mind, destroying at once both keenness and vigour. People are apt to say, "O he is blind," just as they say, "he is an idiot." It would be easy to prove the injustice of such words at once, but we prefer leaving plain facts to speak for themselves in a future page of these remarks. It is sufficient here to say that the idea is altogether erroneous, arising from ignorance of the facts of the case, or a knowledge of the blind derived only from books.

If we sum up the characteristics of the blind as a class, we shall find them to be thoughtful and diligent, with peculiar keenness and sensibility of mind and feeling; shy of expressing their thoughts or feelings before strangers; grateful for every little kindness, and equally tenacious in the remembrance of the least slight; not seldom conceited and opinionated. They are affectionate to one another, and to any who take an interest in their cares or pleasures. One peculiarity—not to be forgotten—is, that they hate to be compassionate,—to be supposed to be so frightfully different from other people.

"Pity the poor blind," is the cry of the professional mendicant who haunts the kerbstones behind a dog. His blindness is his stock in trade,—at once his misfortune and his most excellent property; though even in his case one's pity is all in vain until it assumes a metallic form and drops into the canine basket. But the poor blind who are once placed above being tempted to this degradation do not like being hunted over with pitiful tears or words, or compassionated with sentimentalities. They will gladly listen if you take an interest in what they do, and talk to them as workers of an ordinary kind. But they feel that they are of the same flesh and blood as you are, and you must identify yourself with them if you would hear of their difficulties, successes, joys, and troubles. Otherwise the task will be one of difficulty, and unproductive of the least intimacy.

So keenly do they feel their oneness with other people, and so disinclined are they in general to allude, even remotely, to their own loss of sight, that among blind children such phrases as the following are constantly exchanged:—"Have you seen Martha Smith?" "I saw Robert in the basket shop." "Sarah, have you seen my bouquet?" (here the chapel bell rings) just see if it is in your room." As may be therefore imagined, they take great interest in listening to descriptions of many circumstances and things which it appears at first thought persons without sight could not at all realize. We happen to know that the pupils of the Blind School in St. George's Fields listened with great interest to several very lengthy printed accounts of the funeral pageant of the Great Duke. Many of them also visited the Great Exhibition, and were delighted with the wonders of the place, of which they still talk. Of this thoughtful and ingenious race of people there are in Great Britain about twenty-five thousand, of whom a small proportion, certainly not one-half, are being educated, as the majority of the whole number belong to an indigent class for whom little has been attempted, and still less has been done. Shut out as the blind are from the thousand channels of information and improvement open to the rest of mankind in the world of books, of course the first object has been to teach them to read, especially to read the Scriptures. For unfortunately scarcely any other book has yet been brought within their reach

\* This idea Dufan contradicts strongly, even in the case of those born blind.—«C'est toutois un fait bien digne de remarque que la defectivité de l'instrument intellectuel chez les aveugles ne dépasse presque jamais certaines limites. On a observé qu'il est fort rare qu'ils soient atteints sinon d'imbécillité du moins de folie.»

\* «En somme," says Dufan, "l'attention, la comparaison, et le raisonnement, l'abstraction, l'analyse et la mémoire, tous les éléments de la raison humaine sont en eux comme en nous; pas un n'y manque." (P. 47.)

\* Our readers will perhaps be surprised to learn that the blind were exhibitors at the world's mart, a large stand being entirely filled with their work in rugs, mats, and baskets, besides knitting in wool and silk, and hair-work of the finest kinds.

\* Golown's estimate of the number of blind persons in Japan appears to us impossibly large; he sets down 36,000 to the capital, Jeddo, alone!

The proportion of the blind to the whole population is rather higher in America than in Europe. In Egypt the average is still higher, probably on account of ophthalmia; being computed to amount to one blind person in every hundred; in Norway, one in a thousand; in Great Britain rather less than in Norway. All the blind do not seem to feel their privation with equal acuteness; different causes of blindness seeming to involve different degrees of suffering,—those born blind feeling their loss far less deeply than others who can form a real idea of vision.

of the poor blind. We say unfortunately, because *The Book* of all books has by this means been subjected to much usage—to which any book may be degraded—at once becoming an unworthy of its sacred character and contents.

"The Scriptures," says the author of "Tangible Typography," (a work which we gladly recommend to our readers' careful perusal), "are now read more frequently as an exercise, and a means for mastering a system, than as a spiritual comfort, guide, and consolation; especially in schools, where portions of the Bible are used as the only class book, and where, consequently, monotony begetting indifference, and indifference want of respect, the reading of the Word of God is apt to be regarded as a task, rather than a pleasure and a privilege." (P. 6.)

And again,—The books printed for their use are few in number, deficient in variety, and not procured without difficulty even at a large expense." (Ibid.)

"The blind are almost entirely without works of interest or amusement." (Ibid.)

It is evident, therefore, that much remains to be done before the blind, as a class, can be raised from their present dark and dreary condition. Two-thirds of the twenty-five thousand in England cannot yet read (p. 10), and those who can have their small library rendered still smaller by the multiplicity of systems on which the books have been printed. These systems, as it appears, so utterly different from each other as to require separation and special study before they can be deciphered. Learning a new system is, in fact, to a blind man, like learning a new language. That our readers may the more readily understand this, we propose giving a brief sketch of the different systems now in use among the blind in Great Britain; and then as briefly noticing what else has been done for them in other matters of mental and bodily education.

All printing for the blind is in raised, or as it is called, embossed type, at once perceptible to the touch. The different systems may be subdivided into two distinct classes, which have been severally named *Arbitrary* and *Alphabetical*; the first in which arbitrary characters are used to represent letters, sounds, or words, and the second in which the ordinary Roman letters are employed.

Modifications of the two great classes of Systems may be thus subdivided:

- Alphabetical.\***
  - 1. Alston's system.
  - 2. The American.
  - 3. French alphabetical.
  - 4. Alston's modified.
- Arbitrary.**
  - 1. Lucas's system.
  - 2. Frere's system.
  - 3. Moon's.
  - 4. Le Systeme Braille.
  - 5. Le Systeme Carton.

Of the alphabetical systems Alston's is the chief and best. "After long experience," writes the adapter, Mr. Alston, of Glasgow, "I am convinced that arbitrary characters, however ingeniously constructed, throw unnecessary obstacles in the way of the blind." He therefore chose the ordinary Roman capital letters, as being at once the simplest, and most easily felt,—the most likely to be remembered by any blind scholar who had once enjoyed sight; in which, too, any one with sight, able to read ordinary type, could with ease instruct those deprived of the use of their eyes. The importance of this latter advantage cannot, we imagine, be over-estimated; and we are bound to admit that Mr. Alston's choice of the Roman letters is, on the whole, a wise one. At p. 35-36 of Mr. Johnson's valuable little work we find the following reasons why Alston's, as now in use, or slightly modified, is the system best suited for general adoption:

- 1. The blind already form a peculiar and distinct class of people, and it is most desirable on every account not to render them more isolated or peculiar, but rather to make them, as far as may be, one in advantages, duties, and enjoyments with their fellow-men. The system of embossed printing for their use, therefore, should embrace at least the following features:—
- 2. It must resemble as nearly as possible the type in ordinary use among those who have eyesight;
- 3. It must be such that the blind scholar, in learning to read, may have every possible help from words which he may have formerly seen, but which now his fingers must decipher;
- 4. That he may derive help in learning from any one who can read an ordinary book; or, if needful, that his friend may be able to read to him;
- 5. It must present the words correctly set in full, that when he learns to write, he may do so in a correct manner which others can read;
- 6. The raised characters must be clear, sharp, and well-defined, like the finger hardened by long work, and the keen soft touch of the little child, may be alike able to discern.

\* The only system which can ever offer such advantages as these must clearly be some modification of Alston's system, or the lower-case type." (P. 56.)

To the same effect speaks the Rev. W. Taylor of York, probably one of the highest authorities on all points connected with the blind. "No alphabet," he says, seems to possess so many

\* One most curious and ingenious system of writing and reading is that of a knotted string, invented some years since by two blind men, then in the Edinburgh School. We have but space to note that the letters are on this system divided into seven classes, each class and each letter being represented by a knot or knot of a peculiar kind, easily distinguished by the touch. The system is obviously more curious than useful. It would be an interesting task to compare it with the "Quipos," or knotted records anciently kept by the Peruvians, before the era of Spanish discovery.

\* In the records of raised characters, first adapted for the use of the blind, the Ilyrian or Slavonian alphabet was employed, probably on account of the square form of the letters, for this reason more easily detected. These soon gave way to solid letters (Roman) of wood, which were made to slide into a frame.

Archbishop Usher tells us of his being thus taught to read by two blind aunts.

advantages as the Roman alphabet." "I would discourage all systems of embossing," says Mr. Hughes, the Governor of the Blind School at Manchester, "which could not be read and taught by seeing persons." And to like purport writes Mr. Morris the Superintendent of the Blind School at York.

The American books are all printed on a modification of Alston's system, and are a strong testimony on its behalf; while the words of the famous Abbé Carton speak in its favour still more strongly. The Abbé is the Governor of L'Institution des Sourdsmuets, et des Aveugles, at Bruges, and having devoted a long life to the study of the blind, must be admitted as a valuable authority. He thus writes:—«En effet, si un caractère, connu des clairvoyants, est employé dans l'impression en relief pour les aveugles, ces infortunes sont plus rapprochées des autres hommes que s'ils se servaient d'un caractère inconnu de ceux qui les entourent; quoiqu'on en dise, il nous en coûte d'apprendre un nouvel alphabet pour l'enseigner à des enfants, et cette difficulté rebute plusieurs personnes qui, sans cela, se seraient occupées d'enseignement. Diminuer la difficulté qu'animent les clairvoyants à connaître l'alphabet des aveugles, est réellement travailler en faveur des aveugles. Le plus grand nombre d'aveugles se trouve parmi la classe pauvre, et le plus grand malheur des aveugles est leur isolement; tous nos efforts doivent tendre à les rapprocher de nous, et à rendre leur instruction aussi semblable à la nôtre qu'il est possible, et à commencer cette instruction aussi vite que l'on peut.»

One would imagine that such testimony as this was sufficient to decide any question the settlement of which depended on common sense and reason. But, strange to say, such is far from being the case. It is not even yet decided that one of the alphabetical systems shall be adopted. It appears indeed settled that the blind, as a class, shall be educated, and, as a first step, shall be taught to read. But eager and unwearied partisans are disputing on the very threshold of the work how the blind shall be taught.—"Whether," says Tangible Typography, "by Brown's inflexible stenographic, Smith's unvarnished abbreviations, Jones's unsurpassed contractions, Robinson's easy symbols, or any other of the numerous perfect systems which, unfortunately for the blind, have been lately invented." And meanwhile, the work for which all are striving is greatly impeded. The strength and success which unity of purpose and of action alone can give, are wanting; and the education of the blind is impeded.

The American books are all printed on a modification of Alston's plan, and, as a whole, may be regarded as successful, being smaller in bulk and cheaper in cost than those published in England. The type adopted is clear and sharp, being a slight modification of what printers call lower-case. Further notice it scarcely needs from us, as the books are not to be procured in England.

The books printed by M. Dufan,\* at the great Institution for the Blind at Paris, before the employment of an arbitrary system of dots, were rounded lower-case letters with Roman capitals, and, in the Jurors' Report of the May Exhibition, are highly spoken of. But that type has been abandoned, and an arbitrary one of raised dots adopted in its place, apparently without cause, and with little success.

Books of embossed printing, on whatever system, are chiefly for the benefit of the poor blind; their cost, therefore, is a question of primary importance. And in this age of cheap books, when a handsome library can be purchased for a few pounds, it is sad to think that the poor blind man who may chance to have mastered the great task of reading, cannot procure even the New Testament on any system at a less cost than 2l.; even on Frere's it will cost 1l. 10s.; and if he had grown up under the marine shade of Mr. Moon, he will be mulcted of 4l. 10s. To all intents and purposes, therefore, the New Testament as a whole is utterly beyond the reach of those who most need it; the poorest and most ignorant of the blind. But it remains to be proved whether the printers of this age will not be able to introduce into printing for the blind improvements equal to those which mark every other branch of the art. To use a well-known phrase of logical precision, "there is no antecedent improbability" why the blind should not have a pocket Bible and prayer book, and therewith rejoice on many a happy Sunday.—Neither is there any "archidivocal" reason why they should not in a shilling volume wax melancholy over the sable miseries of Uncle Tom, or enjoy with wonder and delight the exciting adventures of Robinson Crusoe.

We now come to another branch of our subject, and to note what has been done for the intellectual cultivation of the blind. Little more has been yet accomplished in England than teaching them to read, write, and cipher, and

\* M. Dufan is the author of a most valuable work on the blind, entitled "Des Aveugles. Considerations sur leur état physique, moral et intellectuel," which, we regret to say, has reached us only too late to be of service while writing the following pages. A few brief notes is all that it now lies in our power to give by way of extract. His system is dedicated to the Crown Prince of Hannover, who is totally blind.

\* But looking back on what Sanderson and Moyes achieved in the study of pure science and mathematics, there seems to be no reason why a few of the cleverest pupils who show any taste for such subjects should not be allowed to read a book or two of Euclid. That the attempt has been made, and not without success, we know. It is more than probable that the blind boy who fairly crosses the fatal "Pons asinorum," realises the pure reason of his task far more fully than many a learner; with eyes who again and again describes the dreadful angle on a greasy slate.

\* Mr. Hughes, the Governor of the Blind School at Manchester, has invented a most ingenious typograph for the use of the blind. But its price at once removes it beyond the reach of all but the wealthy.

\* Of the keenness with which he entered on these studies, and the readiness with which he received outward impressions, M. Dufan gives a striking proof:—«Assistant un jour à des observations astronomiques qui se faisaient sur plein air, d'appareils des instruments on le sollicit à observer par des usages passagers, un point de pouvoir indiquer lumineux avec précision l'instant où il fallait suspendre ou poursuivre les observations.»

even thus far only in the best of the schools with any degree of accuracy or skill. But the spirit of inquiry on their behalf is now spreading through the land. Many thoughtful and philanthropic men are expending time and labour on a subject at once of interest and importance, and the next ten years will probably witness many useful discoveries in aid of so intelligent and afflicted a class.

As might naturally be supposed, the study of Music affords to the blind the purest and most unmingled pleasure; for in this pursuit are they least reminded of their infirmity. They find in it scope for the highest imagination, as well as the deepest feelings of religion; and when a blind man becomes a musician he is one with his whole heart, giving up to this study his entire energies and thoughts. At the Blind School in St. George's Fields, under the able direction of Mr. Turle of Westminster Abbey, many of the pupils have attained considerable skill both in vocal and instrumental music. A blind choir, guided and accompanied by a blind organist, performing choruses and solos from the works of Handel, Mozart, Mendelssohn, Bach, and other choice masters, is indeed, a surprising spectacle; of which, however, our readers may themselves judge by attending one of their usual Monthly Concerts at the School. It is much to be regretted that difficulty should exist in procuring situations for blind organists, however well qualified, more especially as the pupil who becomes a musician rarely masters a trade, or shows much skill as a reader.

How the blind man writes is a problem of much easier solution than that of on what system he is to learn to read. The apparatus he uses is very simple. A small framework of wood, somewhat like a gridiron without a handle, is made to shut with a hinge on a flat square of mahogany, on which is laid a sheet of paper. Between the wooden bars thus resting on the paper, the writer inserts, one by one, each letter,—a small slip of deal with the Roman capital (thus G) protruding from one end in points of metal. These points pierce the paper and produce corresponding letters; the operation being most like what children call "pricking a pattern;" easily seen by the eye, and on the reverse side easily detected by the finger. The process is soon learned, and requires but a little patience, strength of finger, and a knowledge of spelling not Moonish or Lucasian.\* Almost as easily the blind scholar learns to use a ciphering frame, which is of the ordinary size,—of metal in a frame of wood. Across it, in parallel lines at equal distances, run rows of pentagonal holes, like the cells of a honey-comb. Into these holes he inserts his figure (2 or 8, or whatever it may be), which consists of a small metal pentagonal plug terminating at one end in two forked points, at the other in a single obtuse point. When this plug is inserted into the hole, one end remains above the surface of the slate, and according to its position and the nature of the point, whether twofold or single, the figure of the blind scholar determines what figure is represented; the different positions being obviously ten in number. With an apparatus of this kind the scholar of an ordinary blind school manages to work simple sums in the four chief rules of arithmetic; but beyond a knowledge of these four comparatively few ever pass. It may be asked, "Why cannot the blind in some degree emulate the skill and dexterity of Sanderson the famous blind mathematician?" How, if they as a class never progress beyond the horrors of long division, could he, without ingenious frames and pentagonal plugs, calculate the doctrine of eclipses and comets, and explain those profound laws which guide the stars in their courses?

Genius like Sanderson's ever devises ways and means of its own. It has a thousand little contrivances unknown to the ordinary student, who is content enough to travel along the beaten road which others have fashioned for him. Sanderson's whole machinery for computing was a small sheet of deal, divided by lines into a certain number of squares, and pierced at certain angles with holes large enough to admit a metal pin. With this simple board and a box of pins he made all his calculations; in 1711, he was the friend of Sir Isaac Newton, and by his interest was elected Lucasian Professor of Mathematics at Cambridge. It is most probable that he never beheld the distant orbs of heaven, yet with the highest skill he reasoned of the laws which control them; unfolding and explaining the nature, and beauty of light which he could not behold, and the glory of that bow in the clouds which he had never seen.

Thus, also, was it with Huber, the blind philosopher of Geneva. His discoveries in the honied labours of bees have equalled, if not surpassed, those of any other student of Nature. It remained for Huber, not only to corroborate truths which others had partially discovered, but also to detect and describe minute particulars which had escaped even the acute observation of Swammerdam. It is true that others supplied him with eyes, but he furnished them with thought and intellect; he saw with their eyes. Thus he clearly proved that there are two dis-

\* Mr. Hughes, the Governor of the Blind School at Manchester, has invented a most ingenious typograph for the use of the blind. But its price at once removes it beyond the reach of all but the wealthy.

\* Of the keenness with which he entered on these studies, and the readiness with which he received outward impressions, M. Dufan gives a striking proof:—«Assistant un jour à des observations astronomiques qui se faisaient sur plein air, d'appareils des instruments on le sollicit à observer par des usages passagers, un point de pouvoir indiquer lumineux avec précision l'instant où il fallait suspendre ou poursuivre les observations.»