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EDUCATION

OF THE

DEAF AND DUMB

BY MEANS OF

LIP-READING AND ARTICULATION.

BY

W. B. DALBY, F.R.C.S., M.B. (CANTAB.),

AURAL SURGEON TO ST. GEORGE'S HOSPITAL,



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J. & A. CHURCHILL, NEW BURLINGTON STREET.

PREFACE.

THE accompanying paper, with the exception of some very slight additions, was read at the recent meeting of the Social Science Association at Leeds, on October 12th, 1871, and reported in the Times of October 13th. I am induced to publish it, because in drawing attention to a subject which to a good many is comparatively a new one, and therefore especially open to criticism, it is of all things important that it should be dealt with from a thoroughly disinterested point of view; and not only so, but because it is very desirable that precision and accuracy should be observed in speaking upon it. It is quite curious to notice how much damage may, for want of such care, be done to a good cause by even the best-intentioned of friendly critics. For example: In an article in the British Medical Journal of November 4th, in commenting upon this paper, the writer speaks of the system as "new," and suggests that if it obtain in this country, it "will have the effect of modifying, if not completely changing, the system which is at present pursued with us in the education of deaf mutes." The paper itself does not represent it as new, and proves pretty clearly, I think, that any modification is impossible; indeed, that if

there is to be any change at all it must be complete. Such mistakes as this arise from inadvertence, but are all the same likely to be made use of by advocates of the other system. Thus, in the same journal of the following week appeared a letter signed "Truth," in which the writer, after observing that it was not a new system, and commenting unfavourably upon it, concludes by saying, that "its proper position in the system of instruction is not as a base or foundation, nor yet as the principal material in the superstructure, but rather as an adornment to certain portions of the building." Without doubt, if the upholders of Dactylology can induce attempts at partial instead of complete change in the instruction of mutes, they will be successful in preventing the general adoption of the system of lip-reading and articulation into this country; for the attempts will assuredly end in failure, and their proposition will be apparently proved, viz., that only a small proportion of mutes can be taught on this plan.

In the following short account of lip-reading and articulation, as taught to the deaf, the history of its introduction into different countries is only lightly touched upon; an excellent account of this may be found in a paper by G. W. Dasent, Esq., D.C.L., read at the Society of Arts on January 17th of this year, and reported at length in the *Times* of the next day, and in the *Journal* of the Society, published the 19th of January.

W. B. DALBY.

EDUCATION OF THE DEAF AND DUMB

BY MEANS OF LIP-READING AND ARTICULATION.

The so-called German system of education of mutes may be briefly described as one where deaf and dumb children are taught to understand and employ language, by observation and imitation of the articulation of others; the finger alphabet and all artificial signs being rigidly excluded.

Although this system has obtained for many years in most Continental countries, Germany, Austria, Belgium, Holland, &c., it is only within the last four years that any attempt has been made to introduce it into England.* During this time the advantages and disadvantages of the system compared with the one generally employed in England, viz., Dactylology, or finger-talking, have been commented on by the

^{*} This has in chief part been done by Mr. Van Praagh, for many years a pupil of Dr. Hirsch in the School for Deaf and Dumb at Rotterdam.

press; the Times, Lancet, Pall-Mall Gazette, Cornhill Magazine, Jewish Press, and Standard being the principal journals in which articles on the subject have appeared.

Strangely enough, although England has been the last to embrace the plan, the very earliest account in history of anything of the kind being attempted, appears to be when, in the year 700 A.D., John de Beverley, then Archbishop of York, instructed an adult mute in the Christian religion, the pupil in time making such progress that he could read all the words from his master's lips. During the next eight centuries we find lip-reading to have been taught in isolated instances in Italy and Spain, and occasionally a book was written on the subject of the education of the deaf and dumb; but we do not hear of any plan of instruction being regularly introduced till 1648, when a book by John Bulwer was published in London, and soon afterwards John Wallis, Professor of Mathematics at the University of Oxford, and with him William Holder, Canon of Ely and St. Paul's, devoted themselves to the education of the deaf and dumb by lipreading; and it is described by John Wallis in a letter addressed to Robert Boyle. About the same time he also corresponded on the subject with Amman, who introduced it into Holland. The next movement in the education of mutes took place in the middle of the last century, when the Abbé Charles Michel de l'Epée in

France, and Heiniche in Germany, simultaneously busied themselves in the matter; the first-mentioned advocating education by signs, and the second by lipreading and articulation. Endless controversies on the subject took place, and finally the University of Berlin decided in favour of the latter plan. However, owing to the fact that the Abbé de l'Epée had money at his command, also to his using gratuitously all the means he could to spread his system, it soon took firm root in France; and owing to the reverse in the circumstances of Heiniche, and to his dying without leaving behind him a good account of his method, lip-reading and articulation as a means of education for mutes has been much longer in making its way than it would probably have been under more favourable circumstances. It is, however, at the present time thoroughly understood and successfully practised in the places mentioned.

For this, as for any other system, it is of course necessary that the child's intellectual faculties be not more than usually deficient, and obviously where there is a cleft palate or other malformation of the organs of speech (which appears to exist in the proportion of one in one hundred mutes), it is not applicable. The age at which education commences is about seven years, and eight years are expended before the child can read from the lips of ordinary persons, and speak so as to be easily understood by them. Although arti-

ficial signs are excluded in the education, it is permitted and indeed is necessary at the very commencement, to attract the child's notice by pointing to the teacher's lips, and to various objects, in order to excite and ultimately obtain its undivided attention, as it is from the exercise of this, and from the child's inherent power of imitation, that all its future education is to be derived.

To begin at the earliest lesson of a mute of seven years, who has received no sort of instruction. He is brought into a room, when a hearing person is spoken to by the teacher. The child soon notices that as the teacher's lips move, the listener turns round and looks at him, and he thus learns to have his attention directed to the lips of his instructor. Without entering at any length upon the subject of sounds and letters as taught to mutes, it will with a little consideration be seen how, though at first sight it is a difficulty to elicit proper sounds from them by placing their lips and tongue into the necessary positions, it is by no means an insurmountable one, and that a very complete alphabet of sounds may be formed, so that as the pupil progresses with the alphabet, he is taught in a short time by joining two sounds to articulate a word. As soon as this first step is accomplished, then the attention of the child being at once directed to some object or picture which represents the word pronounced, the object after a little time becomes associated in his

mind with the sound which he has made to correspond to it.

By way of illustration—one of the earliest lessons. The mouth of the child being opened, he is made to effect an expiration. This is done, firstly, by his imitating the teacher, and, secondly, by the latter exerting at the same time a little pressure on the epigastrium of the child. Thus, the sound which corresponds in the phonetic alphabet to the letter h is evoked; and it is to be noticed, for reasons afterwards explained, that this is unattended by any vibration of the larynx. By opening the mouth widely, and making a slight noise, without the expiratory movement, the sound "ah" for the letter a is evoked; this being attended by a vibratory movement of the larynx, which can be felt to be communicated to the fingers pressed upon it. At first the loud, inharmonious animal noises that are made in attempts at speech require to be modulated. This is effected in two or three ways. The teacher himself speaking in a low tone, calls the attention of the child to the quiet, subdued motions of his chest and of the muscles around his mouth. He tightly holds the hand of the child in his own, and by depressing it, the child learns to connect this movement with a lowering of its own voice. By placing the hand of the child on his (the teacher's) throat, and by placing his (the teacher's) hand on the child's throat, he will draw its attention to the slighter

vibrations of the larynx when the voice is lowered. By enforced attention of this kind, the child, as his education advances, soon learns that his progress depends on his attentively cultivating his powers of imitation, and by copying these movements produces in this way a fall in the voice.

Suppose the child to have produced the sound for a. By filling out the cheeks and making a puff, the sound which corresponds to the letter p is elicited. Let these two last movements be carried on consecutively, and the word ape is produced. The attention of the child is then at once called to the object, a picture of, or better still, a stuffed ape. From that time forward he connects in his mind the idea of an ape with the sound which he has learned to make. Again, after making the sound for α , he is shown the letter written down; he then learns to write it himself, and is thus able, first, to recognise the word when spoken by his teacher; secondly, to speak it himself; thirdly, to understand its meaning; fourthly, to recognise it when written; and fifthly, to write it himself. Each of these branches of instruction, therefore, go together hand in hand. To perfect some of the sounds, it is necessary to make use sometimes of certain aids; for instance, in making the sound for the letter p, some children will not compress the lips sufficiently firmly, and thus they will produce the sound "pooh" instead of "pah." By making the child blow away a little piece of paper for

a few times, when he is making his attempt, this mistake is avoided.

When the lips are compressed with a slow expiration and advanced, the sound corresponding to w in English and ou in French is made. The lips closed in the position for w are opened quickly with a puff as said before, the sound for letter p, or opened slowly, when the sound "bah" or that for letter b will follow. We have then the three consonants w, p, and b of our alphabet, in which the two lips are alone employed. These for the present let us call bi-labials.

The upper incisors applied firmly to the lower lip, and quickly separated, the sound corresponding to letter f, or, slowly separated, the sound for v will be produced. These two letters, therefore, will, from their formation, be inciso-labials.

The tongue being placed in apposition to the lower incisors, and the teeth closed, with a quick expiration, the hissing sound for the letter s follows. The same, with a slow expiration, will produce the sound for ε , with the difference, that in the latter case, the child's attention is drawn to the vibratory movements of the larynx, which are absent for the letter s. The tongue being placed between the teeth, with a quick expiration, the letter th like the Greek θ , as in the word thin, and with a slower expiration as in the word thin, is effected.

The tongue being placed in apposition to the upper incisors, and moved quickly away, the sound for t is pronounced with a quick expiration, and for d with a slow expiration. These sounds or letters let us call inciso-lingual.

The gutturals, such as qu or k, are sounded by expiration when the tongue is curved backwards and downwards, and this is assisted by a little pressure exercised on the child's larynx, between the two fingers of the teacher; or let the tongue be pressed back to the lower part of the mouth, and let the child be made to say the sound which he had learned before for t. The sound for g is the same as for k, with the difference that there is a greater and deeper movement of the larynx. The sound for m is made with closed lips, and expiring through the nose, while n is effected as follows:—The teeth being firmly closed, the air is prevented from escaping between them by placing the tongue up against the upper incisors, and breathing through the nose. For the sound corresponding to l, the tongue is made to move up and down quickly against the hard palate, the teeth being separated about a finger's breadth. In the sound r the tip of the tongue is kept vibrating against the hard palate, and the vibrations of the larynx are felt to be distinct.

To go back to the letter a, which, sounded ah as in "far," is the first vowel taught. The mouth is

opened, the tongue kept flat, and an expiration is made. The open mouth is then made a little smaller by bringing the corners nearer to each other, producing the sound oo as in hoop, and between these two comes the vowel o. These are the first three sounds taught in the vowels. In the sound for e the under jaw is pressed forward, the larynx raised a little, and a is attempted to be sounded, with the effect of producing e, or written ea in the child's phonetic alphabet.

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i is composed of and produced by a and e rapidly run into one.

ou , , , a ,, oo ,,

oi ,, , , o ,, e ,,
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Lastly, the sound for y cannot be learned until the sounds for vowels are perfectly mastered, but it will then be found to be composed of the two sounds equivalent to e and a rapidly succeeding each other without a pause, or rather run into one. To show this, the mute, if made to pronounce with rapidity a sound written down as eas would articulate the word "yes" as used by us.

The spelling-book of the mute, therefore, will differ in some degree from that of an ordinary child, as he will not make use of or connect in his mind the same sounds that we are accustomed to do in pronouncing the individual letters of our alphabet, but he will produce the very same word when the letters are joined together. To go back to the old example: a p e will spell ape for us and him alike, but each letter individually he will call by a different sound to that which we make when naming it. Strictly speaking, the mute's alphabet is more correct and less arbitrary than our own.

The first year of the child's education is spent in reading the sounds of his alphabet and words of one syllable from the lips of the teacher and from the book, in articulating them, in writing them, and connecting the sounds he learns to produce with objects corresponding to them. It will be observed with infants and children who have the power of hearing, that the first sounds which they make are labial ones, such as sounds beginning with m and p, &c.; and these will also be found in mutes to be those most easily learned at the commencement of their education. As age advances in the one and instruction with the other, the sounds next easily learned are those made with the lips and teeth.

It is necessary in teaching the deaf and dumb to be particular as to the way in which the expirations are made and concluded, for unless this be completely effected, the sounds will die away before they are perfectly emitted from the mouth. Indeed, one would suppose it quite likely to happen that the child might sometimes imitate exactly the motions of the lips, tongue, &c., necessary for articulation, without emitting any sound at all. This, however, practically does

not occur; and more than this, the children who have had as much as two years of the education will detect the teacher or anyone addressing them, if they should form the words with the lips and omit the sound. The second year's education is much the same as the first, progressing, however, from words of one syllable to words of two or three, and words where two or three consonants come before or after a vowel, as in the words arms or straw. Here the difficulty met with is that the child requires practice in repeating such words quickly, the tendency being to pronounce the consonants too separately, thus producing a sound like ser ter aw instead of straw, per lace instead of place.

In words of two or more syllables, when the stress is to be laid on one syllable, this is accomplished by moving the child's hand quickly down as that syllable is being pronounced. In the second year the early parts of arithmetic are commenced to be taught, and it is obvious that as the education advances year by year, no matter what the subject-matter that is being learned, the practice of speaking and reading from the lips or books is at the same time continued equally for all.

It may occur to some that the two systems of Dactylology and lip-reading might be advantageously combined, that the benefits of each might be received and their respective disadvantages left out. Let me say, once for all, that this is found to be impossible; more than this, it is of the greatest importance to check any disposition that the children may themselves evince to combine manual signs with vocal sounds. If this is once permitted, the child soon loses the power of keeping its attention undividedly fixed on the lips of the person speaking, and from that time begins to disimprove in its own diction.

The advocates of the system of Dactylology will be found, when speaking on this subject, to declare that only a certain number of children possess sufficient intelligence to learn articulation, and as instancing this, they will mention adults who are able to converse with facility on the fingers, and at the same time read from the lips and use articulate language. In all the cases of this kind which I have met with, on rigid examination I have found that they have first learned lip-reading and articulation, and that, having become proficient in this respect, they have subsequently learned to speak on the fingers. This, of course, is quite a different case to those I am speaking of. Here the finger-talking must be looked upon in the light of an accomplishment—of a second language, or as if acquired by hearing persons. The true physiological explanation of the indubitable fact, that if finger-talking and manual signs are attempted to be combined with articulate language before the children have learned the latter method thoroughly, they will

not be able to learn articulate speech, will, I think, be found to be the following.

If the child can make its wants known by making signs, although its attention may be called to the lips of the teacher, it will not be able to maintain its attention with sufficient perseverance and care to permit of the full development of the fine muscular sense inherent in the tongue, lips, palate, and throat, which full development is, I believe, essential in order to give the child the power of imitating with exactness and precision the movements which it is being taught.

So far we have been considering the case of children who are totally deaf, either congenitally, or having become so before they had learned to talk. In passing, I may mention two or three somewhat different con-Firstly, where children have become incurably deaf before they have learned to talk; not so deaf but that they can hear moderately loud sounds, but sufficiently so to prevent their hearing enough of what is said to allow them to acquire speech; with these the little hearing which remains will prevent the harshness and want of euphony which characterises the voice of the totally deaf mute who has been taught on this plan. Secondly, a little further degree of hearing will be of immense advantage; for besides speaking euphoniously, if a word shouted close to the ear can be understood, this will serve to correct the articulation, and the child will, of course, not take so

long to learn. Indeed, the more hearing that is left, although not enough for a child to learn to speak in the ordinary way, the more quickly and better will language be acquired. Thirdly, in case of a child who has learned how to speak, and at an early age, say seven, has lost its hearing completely by scarlet fever or the like, it is well known that from the fact of its not hearing others speak it will not be tempted to make use of speech itself, will gradually depend more and more on signs, and in a short time will have lost all power of speaking. For such patients this system is invaluable, for if they are taken in hand as soon as they become deaf, they can with very little difficulty be made to learn lip-reading, and will thus retain their speech, or where it is beginning to be forgotten will rapidly relearn.

The early part of the education is in the highest degree laborious to the teacher, and, besides the perseverance required, it is actually physically hard work. To perfect the sounds made by even quite the beginners, it is important as soon as possible to teach them such sounds as represent words corresponding to some visible object, or constantly recurring sensation. The idea of the object or sensation having once become connected in the mind of the child with the motion of the lips by which he has learned to indicate it, he repeats it with great frequency and pleasure, thus giving opportunities to the teacher to correct any faults her

may possess in pronunciation. Moreover, it constantly happens, and I have myself observed it when paying visits to the children undergoing this course of instruction under Mr. Van Praagh, that one child who is more advanced will correct one less so when the latter makes mistakes. And again, from the very careful and prononcé way in which the children enact the movements of the lips and tongue, the smallest variations in these particulars are at once noticed by their companions and immediately imitated. It results, then, that a correction from the teacher which serves for the one pupil will indirectly affect the others in the class. Thus it is more advantageous than otherwise that numbers should be taught under the same roof. It must not, however, be understood from this that the separation of the mutes from speaking individuals is recommended. In fact, after the first year or two of instruction, the reverse is far the better plan; for the more the child can mix with the outside world, with its relatives and friends, the more do its observant powers become cultivated; and this end is assisted by change of persons and surrounding objects which interest it, rather than by keeping it entirely resident with its fellows. For this reason the institution of day schools seems to me to be likely to prove more beneficial, besides being less expensive, than asylums for this method of educating the deaf and dumb; the end and aim of this system being that the children,

when grown up, should occupy positions of usefulness, where they will receive the ideas of others and communicate their own to ordinary men and women, rather than that they, like those who only talk on their fingers, should have occupations where their social intercourse is limited to those similarly affected as themselves.

Among the advantages which this method of teaching appears to possess over that of speaking by the use of the fingers and artificial signs, one of the chief is the following: - That when the children have acquired the power of talking by the dumb alphabet, however perfectly, and go out into the world, they are still deprived of all intercourse with their fellowcreatures, excepting in those very rare instances where they happen to meet with those who are able to converse in the same way as themselves, the proportion of such persons in ordinary life being so extremely small that for the sake of argument they might almost be put out of the question; or again, on the supposition that a mute could only acquire the power of reading from the lips of others, without being able himself to articulate, and thus convey his ideas to others, it becomes a question whether he would not, although he had to reply to everything by writing, be a more useful member of a community composed of ordinary speaking individuals, than a mute who could only receive and

convey his ideas to those similarly situated as himself, or be dependent for conversation on a chance meeting with some one who had acquired his peculiar language. If such a proposition bears a moment's reflection, it must be apparent how very considerable must be the advantage of that mute who possesses not only the power of receiving information conveyed in language familiar to all, but also of replying in the same manner. Both of these faculties, however, are, in the system under consideration, so intimately combined, that the one naturally follows the other.

In the early part of the education, this method, undoubtedly, is more slow than the other in the facility which it gives for conversing, either by the child or to the child; but this, I submit, ought to possess very little weight when compared with the results attained at the end of the course of instruction.

The condition that the child is placed in with regard to its importance as a member of society when it leaves school, and the careers of usefulness that are then open to it, should, to my mind, be the chief points which ought to be kept in view when comparing the respective merits of the two systems. Of what importance is it if, at ten years of age, a child can talk well with its fellows—well with those who have learned its language—if, at fifteen years, it

still only possesses the power of communication with the few, while its companion (brother or sister, it may be), of the same age, who has been taught on the other plan, converses by means of and understands the language of the many? Looked at in this light, the positions of the two children hardly admit of comparison. With regard to the ultimate chances of success with any child of ordinary intellectual powers, M. Saegert, the Inspector-General of the Education of Deaf Mutes in Prussia, in his report of 1856, says: "Ninety-nine per cent. of deaf mutes have the organs of speech normal; they will speak if they have good sight and touch: the greater or less probability of success depends solely (uniquement) on the greater or less capacity of the master."

Up to the present, all the articles on the subject of lip-reading and the so-called German system of education, which have appeared in the English press, have been favourable to its introduction into England, with the exception of a notice in the *Times* of Monday, July 10, 1871. The following extract from this perhaps represents the objections that have been raised to it by those who have not sufficiently examined results for themselves, and are likely to be brought forward by those whom pecuniary motives and the habits of time have rendered adverse to any change from the old system now adopted in England. I quote this, as the article in question puts forward

the objections that require answering in a very powerful and clear manner:—

"Before, however, the present system of dealing with deaf mutes could be modified in the manner proposed, it would be necessary to know to how large a proportion of them the power of lip-reading and of artificial speech could be imparted, and what would be the average standard of attainment in these respects. Prison officials declare that noiseless communication by lip-reading is constantly carried on in gaol chapels, and it is possible that great proficiency in the art may be attained by cultivation. Still, anything short of great proficiency would be comparatively useless: for deaf mutes would be scarcely less isolated than at present, if they could only follow speech specially addressed to them, or uttered with deliberate enunciation. It is difficult to believe, however, that more than this could be generally accomplished, if only for the reason that many words contain no labial sounds, and therefore do not require lip movement. Another element in the case with which Mr. Van Praagh does not deal, is the supply of qualified teachers. It is evident that teachers under this system would require to be carefully trained for their work, and also that those who have long been engaged in instruction by means of the finger alphabet would be almost disqualified for the practice of methods in which the use of that alphabet is strictly

forbidden. If Mr. Van Praagh desires to see his plan espoused by the public, he would do well to seek some fitting occasion for bringing forward evidence of its practicability and utility, and also for showing how the obvious difficulties in the way of its inception could be overcome. Of these, the difficulty of obtaining teachers seems at first sight to be the most formidable."

It becomes necessary, therefore, to reply to these objections, and I shall attempt to do so seriatim.

1stly. How large a proportion of deaf mutes can be taught lip-reading?—Except in the case of a cleft palate, or other malformation of the organs of speech, all to whom the ordinary intellectual powers are present, and where these are defective no method can be taught.

2ndly. What would be the average standard of attainment?—Although not possessing the power of modulating the voice so as to speak euphoniously, they are able to converse without difficulty on ordinary topics, and to cultivate their minds by reading; thus, at least, being prepared for general social life.

3rdly. Are they able to follow conversation only when addressed exclusively to them?—Provided that they are situated at no great distance from the speaker, with a good view of his features, they are able to do so. This, however, will be subject to occasional variations, for when it is asked—

4thly. Whether they can follow speech only when uttered with deliberation, and this latter point the writer does not anticipate, "as so many words contain no labial sounds, and therefore do not require lip-movement," it must be replied, that even when far advanced in education, it is found necessary sometimes to use greater deliberation when speaking to them than to hearing persons; and this, not so much because words not possessing labial sounds are being employed in the course of conversation, for without attempting to explain the power which they acquire of understanding such undemonstrative words (so to speak), it is found that they do so by long practice, but because it is, in the course of instruction, advisable that they should not guess more than can be avoided, and some persons habitually articulate indistinctly. After all, the objection only amounts to this, that persons who usually articulate less distinctly than others must, when conversing with the mute, take a little more than usual care in speaking, as they will find necessary when talking to a person who is rather deaf. In the case of persons who articulate with ordinary distinctness this will not be found necessary. To substantiate this point, and therefore to meet the objection raised, it is only necessary to refer to schools in Germany, Holland, and Austria, notably those of Cologne, Rotterdam, and Vienna, where any strangers may

attend on a certain day in the week, and by conversing with the pupils they may judge for themselves.

We now come to the fifth objection, which the writer thinks will be found to be the most formidable, viz., how to obtain teachers.

If it were necessary that all the teachers in a school should be complete masters of this art of instructing mutes, the difficulty in obtaining a sufficient number would undoubtedly be great, and their salaries proportionately high. It is, however, found by no means necessary that this should be the case, and the following plan appears to meet the difficulty. The head of a large school would be a director or manager; under him a sub-director and a staff of teachers. Now, the head-master should be an experienced teacher, and the second scarcely less so. For the rest, it will at first be simply necessary that they should be able to impart instruction in the same manner as if they had to deal with ordinary children. The way in which deficiency in experience in them is made up for, is the circumstance that only very great and extended experience is required in quite the early part of the educational course. On this account, the director and sub-director would be chiefly employed in directing the staff of assistants, and in teaching those children who are in the first year or two of pupilage. For the other teachers, very little intimacy with the mode of

treating, managing, and teaching mutes will suffice in the case of those pupils who have been for several years at school. A master fresh to his duties would of course be placed in charge of the most advanced; and the longer a teacher had been engaged in the work, the more competent would be become to instruct the younger children. With industry an intelligent man will, after one year's training, be able to instruct quite the young pupils. Thus, a constantly improving class of teachers would in a few years spring up; in fact, the supply would keep pace with the spread of schools. It will follow from this, that although the expense of paying teachers will not be so large as to be a great difficulty, it will be eminently desirable that their salaries should be sufficiently large to induce young men to remain for a moderately long time in the school, and to incline them to adopt the teaching of the deaf and dumb as a profession in which, when proficiency has been acquired, they may look forward to increased rates of salaries. The difficulty of obtaining teachers will, however, I think, be more apparent than real. It is practically found that it requires one teacher for every class of ten or twelve children; therefore, undeniably nearly double the number of teachers are necessary for this than for the other system, and, consequently, it is the more expensive of the two.

I do not propose to enter into detail upon the pro-

gress which may be expected from a child from year to year, nor to estimate the extent of education which, under this system, a mute may be capable of. So long as a boy or girl can read with ease, this may become indefinite. Suffice it to say that, after between three and four years' instruction, children can understand moderately well ordinary sentences, and reply sufficiently clearly and intelligibly to be understood in return; that they also have what may be described as a fair knowledge of general subjects, such as arithmetic, &c., and that they write very well indeed.

With regard to any benefit in health which might arise from the exercise of the voice in the case of mutes, I am not able to speak from experience, but should be inclined to think it appreciable, and in that case it should be reckoned as an element in favour of the system.

Infinitely more difficulty is found to be met with in teaching lip-reading to an adult who has been born deaf than in the case of a child, the patience and docility in the former case not being so great, and the fact that the adult has learned to talk on his fingers being of all things against his learning a new mode of expressing himself. To adults, however, who have become deaf after mature age, lip-reading may be taught, although it requires great perseverance on the part of the patient; and if the practice of teaching it to

them obtained, would probably be the means of considerably ameliorating their condition.

Such is a short account of this method of education for the deaf and dumb; and, in conclusion, it is hoped that when general attention has been called to it, a fair trial of it may be given in this country as well as elsewhere, and the issue must rest with its failure or success, as estimated by competent judges.

The following extract from the *Times* of Friday, October 12, reports the proceedings which succeeded the reading of the paper:—

"Mr. Van Praagh, who has lately introduced the lip-reading system into England, and who is conducting a school upon this principle at 164, Eustonroad, made a few observations in support of the paper, and invited visitors to see the working of his class. He then introduced to the meeting Mr. Polano, of Leyden, a deaf gentleman, who had been educated in the manner described, and who was ready to converse with any one who spoke the languages which he had learnt. Mr. Polano's native language was Dutch, but he also spoke some German and French. Upon this Mr. Huth, of Huddersfield, came forward and addressed Mr. Polano in German, and carried on a conversation with him for some minutes, Mr. Polano taking his share in it easily and correctly. To put Mr. Polano's deafness to proof, Mr. Huth sometimes spoke inaudibly, moving

his lips, but producing no sound, and when he did this Mr. Polano understood him equally well. The test was a severe one, inasmuch as the two gentlemen had never met before, and Mr. Huth wears a rather full moustache, an appendage which would at first be thought likely to conceal the details of speechmovement. Moreover, Mr. Polano belongs to the class of the absolutely deaf, and these never acquire the same euphony of speaking as the many so-called deaf who have still some small perception of sound. Nevertheless, his German was quite intelligible, and much that he said was readily understood by even distant persons among the audience.

"Sir Willoughby Jones then made some observations in support of the system, and Mr. Brudenell Carter gave a detailed account of a visit that he had paid to Mr. Van Praagh's school. He said that he found there children none of whom had been more than three years under instruction, but who spoke intelligibly, though harshly, who wrote down sums correctly from his dictation, who fetched articles for which they were asked, and who gave unmistakeable proof of understanding all he said to them.

"Sir John Pakington expressed his deep interest in the extraordinary exhibition they had witnessed, which seemed to hold out hope of an effectual remedy for a most distressing infirmity; and Colonel Ratcliff, as the chairman of the Institution of the Deaf and Dumb at Birmingham, expressed his desire to further a fair trial of a system which had produced such results.

"Yesterday morning the final meeting was held in the hall of the Mechanics' Institute. The report of the committee was read by the Secretary, and was followed by some observations from Sir John Pakington, in the course of which, after recapitulating some of the chief matters that had been brought before the meeting, he referred in the following terms to the paper by Mr. Dalby on the education of the deaf:- 'There has been another most important feature of this Congress. Perhaps I allude to it more strongly from the fact that I must confess that to me it was wholly new. I was not aware of the progress which has been made in the extraordinary attempt—and I think every one will feel that at first sight it must have appeared a hopeless attempt—to teach those who are visited by Providence with the great affliction of being deaf and dumb; to teach them how, by watching the motion of the lips of any person, they may be enabled to know what that person says, and therefore to use that faculty of speech which, in this case, as you well know, is only withheld in consequence of the inability to hear. We had a most remarkable display yesterday on the part of a gentleman from Holland, who is afflicted by being deaf and dumb. He appeared

in the Education Department very kindly for the information of the public, and now through the agency of this Congress it should be borne in mind that that remarkable fact will attain a degree of publicity which it has not hitherto attained, and which probably it would have been very long ere it could attain, had it not been for the attention which was drawn to it in the Education Department. How far that system may be made useful to all classes may be a doubtful question. Certainly to a portion of our fellow-creatures it can only be made available through the agency of those public institutions which are already largely in existence, and where, I hope, serious attention will be given to this new and interesting invention; and grateful ought we all to feel if, by the agency of such an invention, that great misfortune to which so many of our fellow-creatures are subject may hereafter be mitigated in its severity."