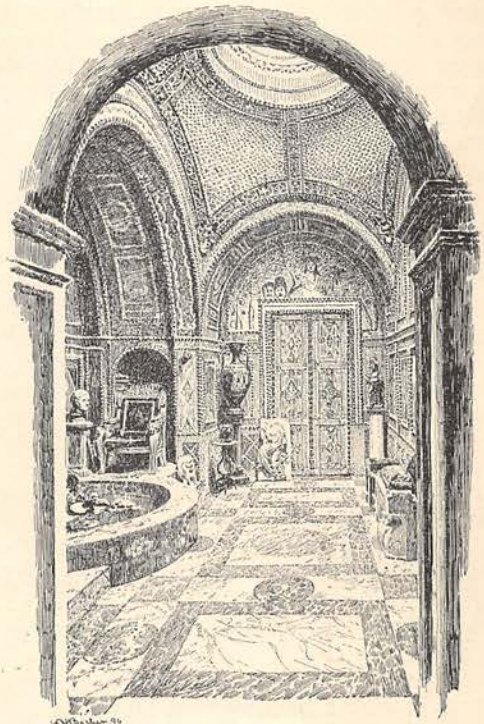


ing on his sword, wearing a superb helmet, and wrapped in a paletot with a vivid yellow collar, one does not notice at first sight that this portrait of the Iron Chancellor, despite the insignia of power and the brilliant bits of color, makes him out older and sterner, with the lines of thought and care deepened about the mouth and eyes—those eyes that have kept so long and vigilant a watch over the destinies of Germany.

Viewed as a whole, Lenbach's art strikes one, above all, as honest. Here are no tricks of the brush, no specious strokes to deceive the eye into thinking it beholds truth where the work is but meretricious, no sensational juxtaposition of light and shade, no abnormal craving after something new. His work is pursued on great and long-acknowledged principles, modified only so far as the individual genius of every artist inevitably modifies the medium of expression. His portraits, in the eyes of which shine the soul, the mind, and the character of the sitter, bear testimony that his art is a faithful, if sometimes idealized, portrayal of nature. They testify to his peculiar gift of seizing and fixing those subtle traits that, more than form or feature, make us different one from another.

Edith Coues.



DRAWN BY OTTO H. BACHER.

SHELL GROTTA ADJOINING THE STUDIO.

SPEECH AND SPEECH-READING FOR THE DEAF.¹

THE majority of people will, I presume, be surprised to learn that there are to-day more than 2500 deaf children in this country who are not only taught to speak and understand the speech of others, but are taught as wholly by means of speech as the children of our public schools.

The children of our school always have quite enough to tell and to ask, but when they first return after their summer vacation they are filled with news almost to bursting. They chatter all at once if we will let them, and pull us this way and that in their endeavors to monopolize our attention. This year two little chaps were specially amusing. Each was eager to relate the adventures of the summer, and one with a roguish laugh placed his hand over the mouth of the other while he told me that he stepped in a bees' nest, and the bees stung him and hurt him very much; that he fell into a brook and got wet all over—"but my shoes did not get wet." "Why did n't your shoes get wet?" I asked.

"Because they were on the grass," was the reply. My time was exhausted before their stock of information, and I fled in desperation, leaving them to tell their experiences to one another.

Can such children be called deaf-mutes? Had they been educated by the sign method their only means of conveying information to people in general or obtaining it from them would have been the laborious medium of pencil and paper, for very few people understand the language of signs. People soon weary of writing their conversation on the street, in a carriage, even in a room and at a table. A gentleman who had lost his hearing at seventeen, and then learned the sign language and was educated at the college for deaf-mutes in Washington, once said to me, "I found that people who came full of interest, and with many things to tell me, seemed to freeze up and close the fountains of their expression when I presented them with a pencil and tablet. So I learned lip-

¹ See also "Open Letter" on Helen Keller at Cambridge.

reading after I left Washington, and now I can talk with you or any one else, and I keep up more easily with the times. I knew I should lose my speech, as others have before, if I did not use it constantly, so all the time I was in Washington I read aloud to myself for hours in my room. I learned poetry, and recited it when alone, and in that way kept up my speech by my own efforts.)

Thanks to the pure oral method, and the pressure brought to bear by its advocates upon the schools of the old style, the day has almost passed when in any institution for the deaf such force of character is necessary in a boy to overcome the neglect of his instructors. It will soon seem incredible that such a statement as the following of Dr. Alexander Graham Bell could *ever* have been true. He says: «I have seen a boy who became deaf at twelve years of age, and who had previously attended one of our public schools, go into an institution for the deaf and dumb (where articulation was taught an hour or so a day) talking as readily as you or I, and come out a deaf-mute.»

To-day not only may those who have lost their hearing after acquiring language and speech be educated by speech, and taught to understand it on the lips of others, but also those who have been born deaf or become so in infancy. Little by little the teaching of speech and speech-reading has been forced upon the schools of the old type, sometimes by the public demand, and sometimes through the receptive intelligence of the principals. In 1866 there were 26 schools for the deaf in this country, in none of which was the oral method practised, and in only two or three was an hour or two a day given to the attempt to teach articulation to a favored few. To-day there are 89 schools, and in all but 7 articulation is taught, in 60 the oral method is used, and in 26 is employed exclusively.

The earliest recorded attempt to found a school where the deaf could be educated was made in the early part of the seventeenth century by the learned John Butler, a contemporary of Milton and Bacon. He, however, says of the project: «I soon perceived, by falling into discourse with some rational men about such a designe, that the attempt seemed so paradoxical, prodigious, and Hyperbolicall, that it did rather amuse than satisfy their understandings.» Indeed, it was not until more than a century later, when De l'Épée, Heinicke, and Braidwood founded schools in France, Germany, and Great Britain respectively, that any permanent institu-

tions were established for the education of the deaf.

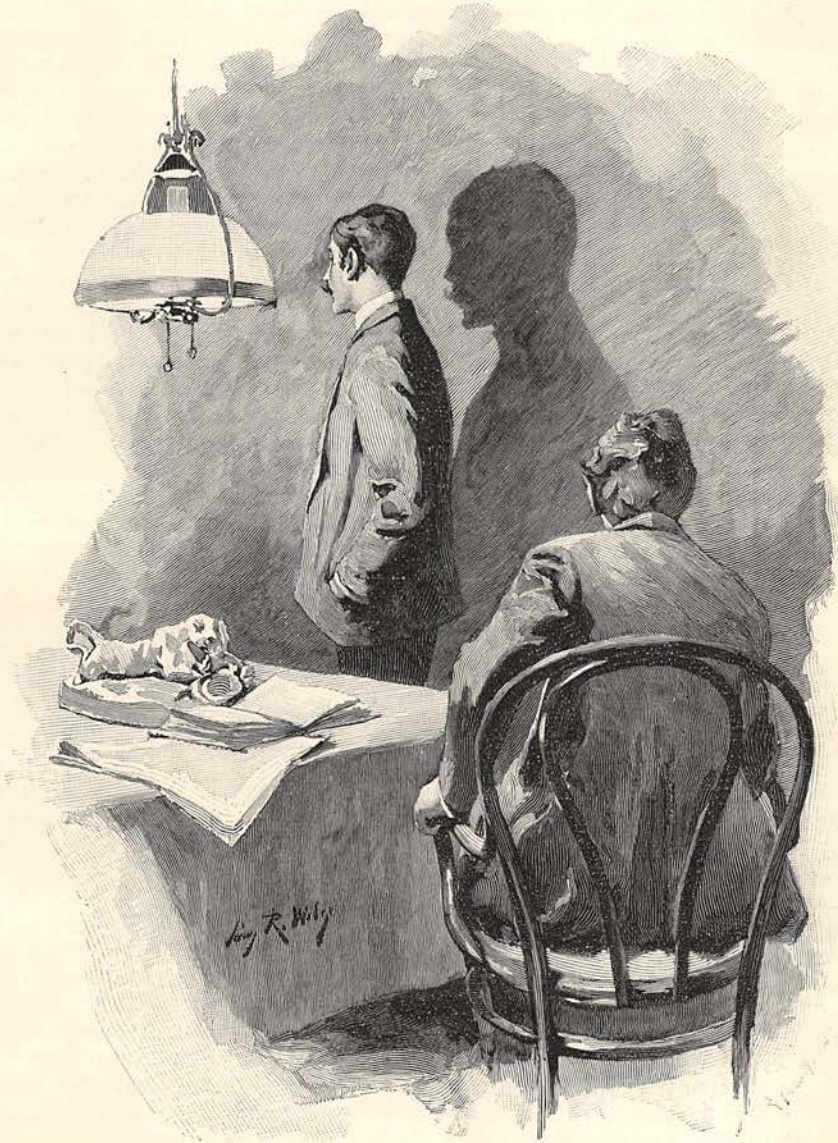
It is a very rare occurrence when a deaf person is mute for any other reason save the lack of the instruction which a hearing child receives through his ears. Recognizing this fact, and that speech is the most distinctive gift of man, Heinicke and Braidwood devoted themselves to the training of the vocal organs of their pupils, and to teaching them to read the speech of others by noting the movements of the lips and tongue. On the other hand, the good Abbé de l'Épée based his method of instruction upon the fact that all human beings, when deprived of speech, either through deafness or ignorance of the language spoken about them, resort to signs to make known their wants. All savage races have a code of signs by which they can communicate with one another and with the surrounding tribes. He therefore conventionalized and systematized signs, and invented new ones when natural gestures failed to convey the idea.

With this system of conventionalized signs, brought to this country by Dr. Thomas H. Gallaudet, a school was opened in Hartford, Conn., in the year 1817. It had been found, however, that the sign language did not solve the problem of giving the deaf a means of communication with the world in general. Very few people understood this language, while its construction, so far as there was any, and its conciseness—a single gesture frequently representing a complete sentence of spoken vernacular—rendered it unfit for representing grammatically constructed language. The method of spelling the words with the fingers by means of a finger alphabet was then pressed into service in conjunction with signs. This is the same as writing in foreign characters on the blackboard or upon paper, except that it is more rapid and more convenient. In this way the reading and writing of grammatical English could be taught, and both the manual alphabet and the sign language are employed in certain schools to-day.

For many years after the founding of the Hartford school no speech was taught there, though to-day the teaching of articulation is an important factor in their work. In 1867, largely through the efforts of Horace Mann, who some years previously had visited the schools of Europe, two institutions were established in this country where the deaf could not only be taught to speak, but be taught by speech without the use of the manual alphabet or the sign language. One of these was in New York City and the other in Northampton, Mass., and they are to-day large and

flourishing institutions. After the establishment of these institutions there sprang up in this country, in the ranks of the teachers of the deaf, a division which already existed in Europe. On the one side were the ardent

crowded out, until now it is entirely excluded from many schools and used but sparingly in others. A single argument brought forward by the son of a distinguished advocate of the ancient method in support of this language is



DRAWN BY IRVING R. WILES.

READING THE SHADOW.

ENGRAVED BY E. H. DEL'ORME.

advocates of the sign language as a means of instruction and explanation, while on the other were the opponents of signs, who employed the manual alphabet, writing, and speech only. The controversy has been waged with more or less energy ever since; but like all the ideas of a cruder and less advanced age, the sign language has been gradually

enough to indicate its ultimate fate, though it has served a noble purpose in its day. He says: «It is a fact worth noting that the signs used by the Indians of North America are identical in many instances with those employed by the deaf-mutes of to-day.» No one will question the truth of this observation, nor deny that it is worth noting; but we

have reached a stage in the world's history when we can lay aside the tools of savagery. Through progress in enlightenment we are fortunately able now to give our deaf children a better means of communication with men than that employed by the American Indian or the African savage. It is a friendly struggle, in which the old-school advocates of the sign language are the defensive party and the oralists the aggressors. Both are, however, engaged in the great work of ameliorating the condition of an unfortunate class, and have much that is common ground where they can clasp hands with hearty approval.

In the schools for the deaf in the United States to-day three systems of instruction are used. The methods employed are, in the first system, signs and the manual alphabet; second system, speech and the manual alphabet; third system, speech only. Writing is of course employed in all the systems.

In 1817 there was but one school for the deaf in the United States, and it contained only 20 pupils; in 1870 there were 34 schools, and, in round numbers, 4000 pupils under instruction; while to-day there are 89 schools and 9000 pupils in attendance. In 1884, 27 per cent. of all pupils were given instruction in articulation; in 1895, 55 per cent. In 1870, 3 per cent. of the 4000 children under instruction were taught by means of speech alone in the pure oral method; while in 1895, 28 per cent. of the 9000 then in the schools were being educated by the pure oral method. It is beginning to be realized that all children should at least have a trial under this method, though their instructors may see fit to change to another system later. The State of Pennsylvania has taken the matter into its own hands, and has passed a law declaring that a State appropriation for the education of the deaf shall not be available unless facilities are provided for giving each pupil a trial under the pure oral method.

Formerly if a taxpayer was so unfortunate as to have a deaf child, he paid the regular school tax, but derived no benefit from it, as the State provided no school for the education of his deaf child. To-day in most States this injustice no longer exists, and a man can have his child educated free of cost by either the sign or oral system. In most schools the pupils are received when six years old, and retained for a period varying from six to twelve years. Owing to the desirability of continuous supervision in the education of the deaf, and the fact that many of the pupils come from long distances, most of the institutions are boarding-schools. The intercourse of the

pupils with one another is therefore much more intimate than in an ordinary public school; as these are really boarding public schools, many parents of means and refinement hesitate to send their children to them. To meet this demand for a refined, cultivated home and school combined, a small school has lately been opened in New York. The instruction ranges here from the kindergarten through the college preparatory course. One special disadvantage of the public institutions is that, by reason of the small appropriation per pupil, the classes must of necessity be large, and it is here that a private school has a great advantage; for while still retaining the very desirable and almost necessary stimulus of association with others in the class, and the companionship that is needed for the best development of the child, it keeps the numbers small, and gives a greater opportunity for individual instruction.

It is generally supposed that the deaf have a tendency to moroseness and melancholy. This is least true of the orally educated adult, and among the children in the oral schools is not true at all. I know of no happier or more contented lot of children than are to be found in these schools. The visitor who expects to enter a place of silent halls, quiet play-rooms, and noiseless yards is much surprised to hear peals of childish laughter, and cries and shouts, as the children romp and frolic out of school hours.

As this is an article on the speech and speech-reading of the deaf, those so-called "combined" schools where only an hour or two a day is devoted to the teaching of speech and speech-reading may be passed by with a brief reference. Their results in teaching the congenitally deaf to speak and understand the speech of others are unsatisfactory, for a pupil cannot be expected to acquire those difficult arts with his share, perhaps a tenth or twentieth, of an hour per day. One might much better expect to learn to speak Greek fluently by studying it twenty minutes a day, and devoting the rest of the time exclusively to writing and reading English. I therefore pass on to the oral method, which alone can give the pupil a practical and working knowledge of speech, both uttered and read from the lips.

To most people the task of educating a deaf child seems very formidable, and yet in reality it is but little more so than that of educating a hearing child. In proportion to the amount that he has to learn, the deaf pupil progresses at about the same rate as his hearing brother. It must be remembered that the great majority of deaf pupils who



DRAWN BY IRVING R. WILES.

A LESSON IN VIBRATION.

ENGRAVED BY ROBERT VARLEY.

unless the mother takes great pains to preserve it by constantly talking to the child and encouraging it to speak. The preservation of this speech is well worth the time and trouble expended. As soon as the parents of a child discover that it is deaf, no matter at what age, they should seek the advice of some competent educator of the deaf.

One of the first lessons that the child has to learn upon entering school is to watch the lips of his teacher and attach a meaning to their movements. All directions and commands are, from the very outset, spoken, and the foundation of speech-reading is laid in the first half-hour, when the child learns to recognize his name on the teacher's lips. The amount of spoken language that a child has learned to

enter schools at six years of age have almost as much to learn as a hearing child of two. The deaf child has to be taught at school what the hearing child picks up while playing at home. At the end of six years the deaf pupil has more than kept his relative position; he has, as a general thing, gained a little on his brother, for though they are still separated from each other, the distance is less than at the beginning of their school lives.

If the mothers of deaf children could all be made to realize the importance and helpfulness of persistent, watchful training of the senses and faculties of their little children even before they are old enough to go to school, the work of educating the deaf would be much easier and the results more satisfactory. In most instances the child, though not more than three or four years old, can be taught to understand many simple-spoken phrases. If hearing was lost through sickness after some progress had been made in learning to talk, this speech will fade away

understand before he can speak or write is considerable.

The first few months of the school life are devoted chiefly to exercises for the development and training of those senses still possessed by the child, which must do the work of the missing sense in addition to their own, and in cultivating in him the habits of obedience, attention, and concentration, without which he can make no progress. The attention on the part of the deaf child in the classroom must be closer than is required of a hearing pupil; for if his eyes wander from the teacher's lips he immediately loses the connection, since his ears do not tell him what is being said. The habits formed in the earliest classes are of fundamental importance, and a great responsibility rests upon the teachers of the lowest grades. Before the actual teaching of speech the attention of the child must be aroused, his interest awakened, the spirit of observation, imitation, and obedience cultivated, and the senses of sight

and touch rendered alert. This is attained by a series of introductory exercises nearly in the form of play. The games are arranged to train the sight to rapid and accurate recognition of objects, colors, number, forms, and movements, and to develop in the sense of touch a swift and delicate discrimination between forms, surfaces, textures, weights, and finally vibrations. The eyes must do the work of the ears in comprehending the speech of others, and the tactile sense must come to the rescue in the training and guiding of the pupil's own organs of speech. The ability to distinguish differences of vibration by touch is the objective point of all tactile training, and the exercises bearing directly upon this are conducted with musical instruments such as the guitar, zithern, and piano, and then applied to the vibrations of the voice as felt in the chest, throat, and head. The child stands beside the teacher, and places the ends of his fingers upon the head of the guitar that she holds on her knees. She strikes a low note, and the child, watching, feels the vibration of the instrument. She then strikes a high note, and, repeating this, calls his attention to the difference. He is then made to shut his eyes while she causes one of the strings to vibrate. He soon learns to tell by the feeling whether it was a high or low note that was sounded. The next step is to place his hand upon her throat while she sings high and low notes alternately. By and by he acquires the ability to recognize the difference in tone by feeling her throat. The same thing is repeated with the zithern and the piano, and when the utterance of articulate sounds is begun; this power of recognizing tones by the sense of touch is used to guide the child in modifying his voice as may be necessary—in raising it if it is too deep, or lowering it if it is too shrill. He gradually learns to tell by the feeling in his own head and chest, not only whether he is speaking loudly, but also whether his voice is high or deep.

The introduction of diagrams repre-

senting the positions of the vocal organs in uttering the various sounds marks a new and entertaining step in advance for the children. The teacher calls one of the little ones to her, and, leaning his head against the blackboard, draws its outline with the chalk, to the immense amusement of the class, each one of whom insists upon having his profile added to the collection. Next day they are drawn with open mouth, exposing the teeth to view, and soon the teacher erases the top and back of the head, leaving only the lines of the nose, lips, and chin. The children are now given hand-glasses, and with the keenest interest identify the upper and lower teeth, tongue, hard and soft palates as they are added. They are now ready for a game which they greatly enjoy—assuming the different positions which the diagrams picture to them.



DRAWN BY IRVING R. WILES.

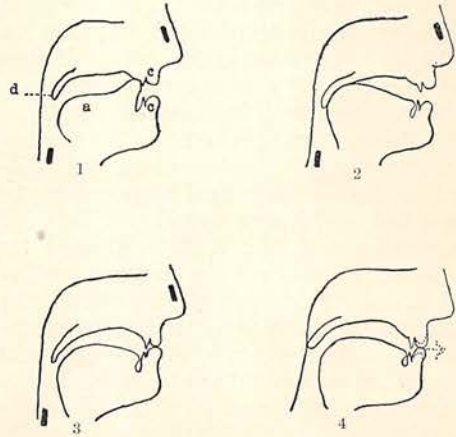
ENGRAVED BY C. W. CHADWICK.

FIRST STEP LEADING TO THE DIAGRAM.

Each illustration represents the positions of the organs for a single elementary sound, and where a change is made in uttering the sound the second position is indicated by dotted lines. By the use of these graphic representations, and by imitation of the movements of the teacher's organs, the children are gradually taught to make all the separate sounds at will. As soon as a sound is mastered it is combined with others. In this way the different sounds acquire a definiteness and accuracy that it is hard to attain by any other means. It very rarely happens that a child fails to make some sound at the same time that he attempts to assume the positions indicated by the diagrams and by his teacher's tongue and lips. It does happen sometimes, however, that a pupil will go through these exercises noiselessly, and, even after recognizing the vibrations produced in the teacher's throat by voice, seems unable to produce those vibrations himself at will. The teacher must then watch her opportunity, and when the boy next laughs or cries, or makes some sound in his play, instantly call his attention to it. Sometimes it is a matter of weeks, but success is sure in the end, provided, of course, there be no physical defect of the organs.

So the work goes on, changing from day to day and from week to week, until, in the words of one of the most brilliant teachers of the entering grade, «At the end of three months the class are ready for the work of acquiring language. Their stock in trade, besides some twenty nouns *taught as rewards of merit* [the italics are mine], consists of the ability to write a legible hand, to pronounce simple English, to read from the lips the more common directions given in school and at the table, and, most important of all, the foundation of habits of concentration and attention.»

The hearing child just learning to talk is quite unintelligible at first, but gradually the organs learn their lesson, and utterance grows distinct. But the ear is the guide and critic of these early attempts. The deaf child, however, hears no sound, and sees only the slight movements of the lips and tongue, and can never learn to speak by his own unaided observation and imitation of those motions. The teacher must furnish the correction and training that the ear ordinarily supplies. The teaching of speech to a totally deaf child who has never spoken is truly a wonderful achievement. He has no conception of sound, and can never have; for the only sense by which he can be taught the



1, Diagram for N. a, tongue; d, uvula; ♯, voice or vibration; cc, lips. 2, Diagram for Ng; 3, Diagram for M; 4, Diagram for P. (Dotted lines show second position with expulsion of breath indicated by arrow.) Diagrams furnished by the author.

existence of such a thing is that of touch, which simply gives him a knowledge of the motions that accompany sound, but are no more the sound itself than the vibrations that produce heat are the sensation we call warmth. To train the deaf child's organs to take their proper positions for the utterance of words as unconsciously as those of a hearing person is a very slow process. The development of any set of reflex actions is a laborious task even where mistakes can be recognized and corrected by the learner himself; in this case, however, the learner cannot correct his own errors, but must rely upon the alert ear of his teacher to keep him from acquiring a wrong set of reflex actions and forming habits that it will be almost impossible to break up.

Side by side with articulation comes the task of teaching language. Imagine yourself in a country whose speech you did not know, and whose inhabitants did not understand yours. Imagine, in addition, that you were suddenly deprived of your hearing. How well do you think you would succeed in learning the new language? Yet the congenitally deaf child is under even a greater disadvantage than this. He is not only in a foreign land the language of which he does not understand, but, to begin with, he has no conception of what language is. He has no language of his own which can be used as a framework on which and by which to build the new. If he is more than two years old, he may have invented for himself a few natural, gestural signs to indicate isolated objects or the simple needs of his body, such as hungry, tired, thirsty; but these signs can no more be called a language

than the different movements of a dog's tail and ears which indicate his feelings or his wants can be dignified by that name. He has no conception of a structurally connected means of expression. Is it any wonder, then, if, after some years of instruction, the teacher occasionally finds a sentence like this, written by a boy in his journal after coming to school one cold March morning: «The wind is very blew, and I am a little shiver»? Or this substitution of act for implement: «The man chopped the ground with his dig, and the dog hurrahd with his wag»? The irregularities and inconsistencies of English grammar and spelling make it much harder, of course, to teach the deaf, and no class of people would be more greatly benefited by a strictly phonetic spelling and an exceptionless grammar than they. That the deaf child is not

frightened by these irregularities is shown by the reply of a bright little girl when asked to give the principal parts of some irregular verbs. Several were given correctly, and then she began on another: «Eat—ate»—she paused for a moment in thought, and then added, «swallowed.»

Perhaps you would like to step into an intermediate-class room for a few minutes. The children are nine or ten years old and have been in school between three and four years—only four years removed from dumbness and utter ignorance even of the existence of language!

You notice that they are seated with their backs to the light, which falls full upon the teacher as she stands or sits before them. They are, perhaps, looking toward the newcomers, and the teacher taps the floor with

her foot to attract their attention to herself. They do not hear the sound, but feel the vibration and recognize it as their call.

After the ceremony of introduction is finished, they will, if permitted, put you through a catechism as to the location of your home, how far away it is, how you reach it, and how long it takes, until a stop is put to their questions. When you have thus been used as an exercise in geography, arithmetic, and language, the interrupted lesson is resumed.

The chances are that in this class it will be a simple language lesson. Language, being the key which unlocks the treasure-house of knowledge, must take precedence over all else. No one who has not taught deaf children has any



DRAWN BY IRVING R. WILES.

ENGRAVED BY F. H. WELLINGTON.

idea of the difficulty of giving them an adequate understanding and command of English. Nearly every school exercise, then, is a language exercise in some form, perhaps appearing under names like "geography" and "history," but often undisguised. The teacher is constantly on the alert to correct grammar, expression, and articulation, to supply words for ideas indicated, and also to work in information while the interest of the class is aroused. It is frequently necessary, in correcting articulation in the lower classes, to resort to mechanical manipulation of the pupil's tongue and lips, to placing the hand upon the teacher's throat, nose, and chest, and to phonetic analysis. The lesson is conducted as much by speech on the

DRAWN BY IRVING R. WILES.



THE DIFFERENCE BETWEEN B AND P.

ENGRAVED BY JOHN W. EVANS.

part of both pupil and teacher as though it was not a school for the deaf. You may not understand all the children readily at first. The speech of a congenitally deaf child is never natural, and varies widely in intelligibility, but can always be made such that those who have occasion frequently to listen to him will soon come to understand him, and that is a vast improvement over dumbness. In many cases much more than this can be accomplished.

An interesting exercise, and one in which the children take the keenest interest, is a sort of "twenty-questions" game, in which the visitor, perhaps, if he feels so inclined,

otherwise the teacher, is the one questioned, and a pupil the interrogator. An object, the nature of which is known to the class, but not to the person being questioned, is hidden in a box, which is intrusted to one of their number. I remember once it was a bright-eyed little girl of eight years, with dimpled, roguish face, who stood in front of me, the mysterious box held tightly in her little hands, and while the eager eyes of the others were fastened on our lips, propounded these questions:

"How many are there?" I said six at random, and hit wide of the mark, for they all cried in chorus, "Oh, no!" I then made a

sudden drop to one, and was greeted with applause and a delighted «Yes» from my interlocutor. «What color is it?» I was next asked. I guessed a great many colors, and was finally successful in winning the applause with brown. I then insisted upon knowing whether it was good to eat, and was assured that it was, and she then asked me what it

subjects which they are taught being reading, writing, arithmetic, geography, history, English literature, physiology, natural philosophy, elementary chemistry, botany, drawing, and sometimes geometry and algebra. In many schools a course in industrial training is added, such as wood- and iron-working, wood-carving, clay-modeling, and painting. Truly



PHOTOGRAPHED BY A. MARSHALL.

Helen A. Keller

was made of. I began to suspect that it was a ginger cooky, and so enumerated the constituents that, to the best of my knowledge, go to make up that delight of the childish heart. I frequently met with assenting applause, but not in each ingredient, and finally discovered that it was a piece of spice-cake.

The instruction, begun as I have briefly indicated, is carried on until the children have been given a good common-school education, the

world has made great progress since the giving of even the most rudimentary education to the deaf seemed to «rationall» men, «paradoxically, prodigious, and Hyperbolicall.»

Speech-reading in an oral school begins, as I have said, with a child's first school hour, and never ends. They learn to read the lips before they can speak or have any language whatever. At that stage it is only the reading of a labial instead of a manual sign. The

child very quickly learns that a certain sequence of motions of the lips and tongue means «Come here,» and he comes when he sees those motions, though he has no conception of the words. A beckoning gesture of the finger would bring him also, but is, of course, much less desirable, as it can never lead up to spoken words. By and by he learns to connect the words «Come here» with the familiar labial sign, and can write and speak them himself. In this way little children learn to understand many simple things that are said to them before they have the vocabulary to represent the ideas, and they thus early acquire the habit of watching the lips, and realizing that some definite idea is obtainable from their motions. Indeed, a school has been recently founded for the training of little children in speech and speech-reading before they are of school age, and remarkable success is being attained with the little ones. But speech-reading in its general application must be accompanied by a knowledge of language, spoken or written. Given language, speech-reading becomes a comparatively simple thing. There is no reason why every person (of good health) who has become deaf after the acquirement of language should not learn to understand conversation by the movements of the mouth. With proper instruction and practice, this accomplishment, which is almost a necessity, is within the reach of every deaf person. Even in the case of people who are only hard of hearing, it is a great advantage to be able to understand their friends without requiring them to raise their voices to a pitch that is wearisome both to the speaker and to those who may be near. The art of speech-reading in its wider applications is comparatively new, and those who have devoted thought and study to the methods of teaching it are few in number; but I feel sure that as an art it is destined to become more and more common, particularly among the adult deaf. To prove to yourself, however, that it is no easy thing to acquire the ability to read the lips, and that it is only *comparatively* that we speak of it as a simple matter, take the hand-glass from your dressing-table, and, sitting down with your back to some bright light, the reflection of which is thrown full upon your lips, speak a few sentences, words, and letters, and see how soon you think you could learn to understand even your native language by the aid of the eye alone. Better yet, put some cotton in your ears, and get a friend to speak to you in a whisper. Let him speak the words «night,» «tight,» «died,» «tide,»

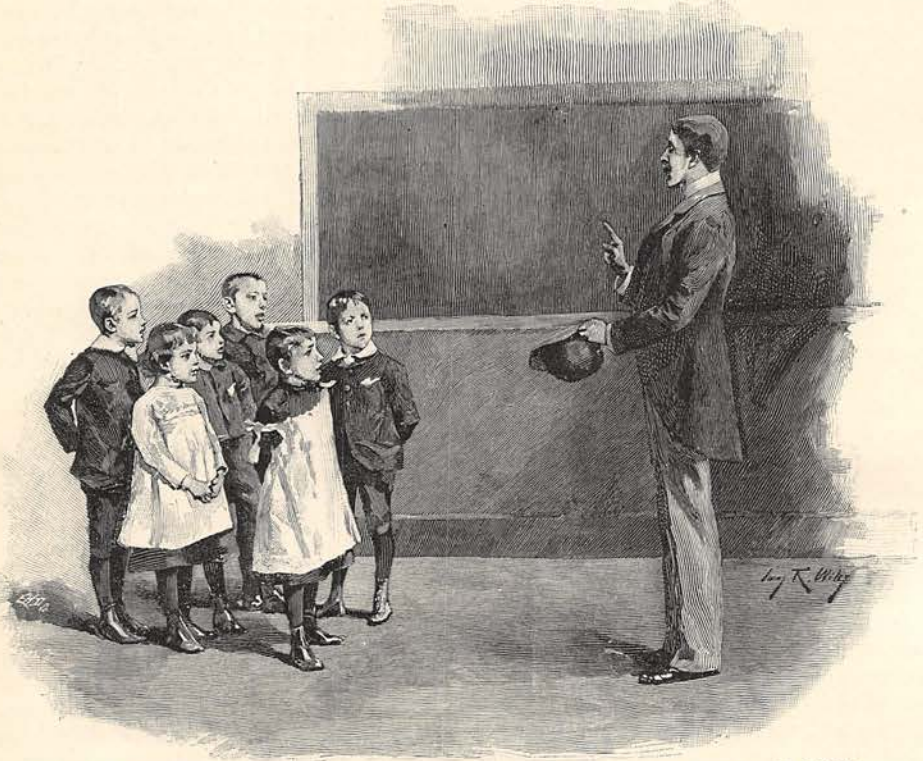
«nine,» «tine,» «dine,» for instance, and see if you can by the closest scrutiny discover any difference between the visible motions which produce them. Perhaps you will thus gain some idea of the difficulties a speech-reader must surmount. There are many words which cannot be distinguished from one another in appearance, but the speech-reader can, as a rule, distinguish between them by the context. «Come again to-morrow. . . .» The speech-reader would know that «night» was the only one of the above list that would make sense. The expert speech-reader often runs ahead of the speaker, and knows what is coming, in the same manner that a listener frequently knows what a speaker is going to say before his sentence is half completed, for thought is swifter than speech. In the same way the speech-reader comprehends the full sentence, though he may see only a part of it, since he supplies that which, though it escaped his eye, he knows must have been uttered. I have heard Dr. Alexander Bell compare speech-reading to reading a line of print with the lower half of the letters covered by a slip of paper. The eye sees only a portion of the letters, but the mind readily supplies the remainder, and reads the words. An excellent proof that the speech-reader sees only a portion of the words and supplies the intervening parts from his own consciousness is found in shadow reading. Several times I have arranged the light in such a way as to throw a sharp profile of the speaker upon some white background, and have seen a skilful speech-reader standing behind the speaker repeating sentences spoken deliberately, simply from the motions of the shadow. I have even seen this done when the speaker was a gentleman with a rather heavy mustache and beard, though the mustache was not, of course, allowed to fall over the lower lip.

Many people, and I am sorry to say some teachers of the deaf, fail to realize, in practice at least, that speech is not as clearly visible to the eye as it is audible to the ear, and think that by speaking slowly, word by word, and opening their mouth to the widest extent, they will render the task of the speech-reader easier. As a matter of fact they render it all the more difficult. A child in school may learn to understand a teacher who mouths his words in this manner, but this ability is of no value to him when he leaves school. Indeed, perfectly natural, deliberate speech is easier to understand than the exaggerated form of articulation which people are apt to use the moment they know they are talking to a totally deaf person. Peo-

ple who depend entirely upon their speech-reading for understanding others have requested me, when introducing them to strangers, not to say that they were deaf, because they find it easier to read the lips when the person speaking is not aware that he is being

how it was done. The limits of this article will permit only the briefest outline of her story.

Rendered both deaf and blind at nineteen months by severe illness, she passed the first seven years of her life in silence, darkness,



DRAWN BY IRVING R. WILES.

TEACHING THE WORD "HAT."

ENGRAVED BY E. H. DEL'ORME.

understood in that way. I have in my acquaintance a young man educated wholly by this method, who travels a great deal, and picks up acquaintances on the steamer or on the train just as people do who possess all their faculties. I have in mind, also, a congenitally deaf girl of fourteen who is not considered unusually bright, yet whose speech is clearly intelligible to strangers after the first ten minutes, who is intelligent on the topics of the day, and whose conversational repertoire is much larger and more entertaining than that of many young ladies of twenty and over that I have met in metropolitan society.

Helen Keller is a household name both in America and foreign lands. She is blind as well as deaf. That the walls of silence and darkness which shut her from the world have been broken down, that her soul has been set free, and the seal of silence taken from her lips, seems miraculous to those who know not

and ignorance. Who could have suspected the exquisite soul imprisoned in that mute and darkened body? A bright, patient, loving woman came, and the miracle began.

There was only one possible avenue of approach to the beleaguered soul. The sense of touch remained, and to that the teacher, Miss Annie M. Sullivan, addressed her efforts. Through finger-spelling the child at length obtained the idea of language, and with this key other doors could be unlocked. Having naturally a fine mind, she learned rapidly when once started, and developed a phenomenal memory.

While Helen received information only through manual spelling and in limited amount, she never forgot. To tell her something was like writing it in a book. When you wished the fact again months or even years afterward, you had only to ask for it. But later, as she began to read books, to

meet more people, and to receive impressions through more channels and in larger numbers, her memory ceased to be so absolutely reliable.

Until she was eleven years of age her only means of communication was by finger-spelling. Then at her own urgent request she was given lessons in speech by Miss Fuller, principal of the Horace Mann School. The rapidity with which she acquired the ability to speak was unprecedented. She soon abandoned finger-spelling as a means of expression, and has ever since used speech alone.

But others still had to communicate with her by their fingers. She then expressed a strong wish to learn to read the lips by touching them with her fingers. For the purpose of attempting this difficult task and to get special training in speech she came to the Wright-Humason School in New York city. During the two years that she remained there she succeeded in acquiring the power of understanding people when they spoke to her, and at the same time pursued regular courses of study in arithmetic, history, physical geography, French, and German. She has read much of the best literature, and is very intelligent on the topics of the day. Her own speech is now excellent, and she has entered a girls' school in Cambridge, Massachusetts, where she is taking a course preparatory for Radcliffe College.

When being spoken to she places her index-finger lightly upon the lips, while the other fingers rest upon the cheek, the middle one touching the nose. Her thumb is upon the larynx. This position gives her the greatest possible information concerning the elements of which speech is composed.

The public are always interested in results. What, then, is a conservative statement of the results obtained by the oral method aside from the general education? It gives to those deaf from infancy a speech that is intelligible to their immediate friends, and in varying degrees to strangers. It enables them to understand conversation on ordinary

topics wherever the lips are clearly visible. It restores them to the society of their fellows in very much larger measure than is possible without speech and speech-reading. I do not claim that they are on the same footing as hearing people. They cannot be; their speech is never perfectly natural, and they can never take part in general conversation as those in the possession of their hearing. The orally educated deaf are found in many of the callings of life, such as journalism, civil engineering, architecture, designing, business, and the trades. They have written for publication on various subjects, in a clear, forcible, and interesting style; but I am not aware that any of them have ever attained literary prominence. The realm of poetry is practically closed to them. They appreciate the beauty of its expression, but though they are frequently quick to catch the rhythm of motion, and are fond of dancing, the rhythm and swing of words seem to escape them. There has been, I think, but one deaf poet, and his poems were chiefly remarkable in the light of his infirmity. So much for the most conservative view. On the other hand, there are many deaf people in this country who have acquired all their speech and speech-reading by instruction after becoming deaf, who go into society, entertain in their own homes, and are entertained in the homes of others, as freely as any members of the community. There are many with whom a stranger might talk for an hour without suspecting that they were deaf, accounting for their slight peculiarity of speech by supposing all the time that they were foreigners. Methods are being constantly improved, and it is to be expected that still better results will be obtained hereafter. Meanwhile experience has demonstrated that by the use of speech as a medium of instruction, the deaf can be successfully educated, and taught to speak and understand the speech of others; and I believe the time is coming when this will be the only way in which they are taught.

John Dutton Wright.

