

Bridgeman, the deaf, dumb and blind girl. This young girl was thus entirely dependent on her sense of touch, and yet to such an extent has this sense been cultivated, that she has been taught to read, write and hold intercourse with her fellow creatures entirely through it. "When I was at the Institution at Boston a few months ago," says Mayhew in his practical Treatise on Education, "she was told a person was present whom she had never met, and who wished an introduction to her. She reached her hand expecting to meet a stranger. By mistake she took the hand of another gentleman, whom she recognized immediately, though she had never met him but twice before. She recognizes her acquaintances in an instant by touching their hands or their dress, and there are probably hundreds of individuals who, if they were to stand in a row, and hold out each a hand to her, would be recognized by that alone. The memory of these sensations is very vivid, and she will readily recognize a person whom she has once thus touched. Many cases of this kind have been noticed; such as a person shaking hands with her, and making a peculiar pressure with a finger, and repeating this on his second visit, after a lapse of many months, being instantly known by her. She has been known to recognize persons with whom she had thus simply shaken hands but once after a lapse of six months."

But enough has been said to show the immense susceptibility of the improvement of our senses, and the call thereby addressed to parents, teachers and others to ply every means for this end; and that not merely because of the direct gratification it yields, but because of its relation to mind, the more clear and accurate the perception, the more vivid and impressive the conception or the image thereof in the mind. But there are some of these senses more intellectual in their character than others, possess a more direct bearing upon mind than others; such as the senses of hearing and of seeing, and to these we would now more especially call attention, as falling more directly under the cognizance of the educator.

SENSE OF HEARING.

"The organ of this sense," says Wayland, "is the ear. It is composed of two parts, the external and internal ear. The external ear is intended merely to collect and concentrate the vibrations of the air, and conduct them to the *membrana tympani*, which separates the two portions of this organ. The external ear thus performs the functions of an ear-trumpet. The *membrana tympani* is a thin membrane stretched across the lower extremity of the tube in which the outward ear terminates. The vibrations of the air, thus produced upon the tympanum, are, by a series of small bones occupying its inner chamber, transmitted to certain cells filled with fluid, in which the extremity of the auditory nerve terminates. From these cells the nerve proceeds directly to the brain.

The medium by which the auditory nerve is affected is the atmospheric air. Sonorous bodies of all kinds produce vibrations in the air, which strike upon the tympanum, and are, by the apparatus above alluded to, conveyed to the auditory nerve. The effect produced upon the nerve is simply that of mechanical vibration, and this vibration, so far as we can discover, is the cause of the sensation of sound. A mere fluctuation in the extremities of the nerve is the occasion of all the delight which we experience in listening to the sublimest compositions of a Handel or a Mozart. No more convincing proof can be afforded that there is no conceivable resemblance between the change in the organ of sense and the delightful cognition of the soul which it occasions."

We dwell not here on the number of sounds which the human ear is capable of distinguishing, or on our power of determining the direction from which sounds proceed by the ears being separated, at some distance from each other. Neither do we stop to consider whether hearing is a sensation or perception, that is, whether it furnishes us with a simple knowledge, without giving us any cognition of an external world. It is more to our purpose that we attend to the influence which sounds exert over the tone of the human mind. Not only are the sounds of the human voice universally understood, whether they indicate kindness, authority, pity, rage, sarcasm, encouragement or contempt, but they have the power of awakening an emotion, similar to that which produced them, in the mind of the hearer. A shriek of horror will convulse a whole assembly. It is said that Garrick once went to hear Whitefield preach, and was much impressed with the power of that remarkable pulpit orator.—Speaking afterwards of the preacher's eloquence, he is reported to have said, "I would give a hundred pounds to utter the word Oh! as Whitefield utters it." It is probable that it is in the power of expressing our emotions by the tones of the voice more than in any thing else, that the gift of eloquence consists.—And what are the practical inferences deducible from all this in so far as the public instructor is concerned? 1st. He ought to be exceedingly careful in modulating the tones of his own voice in all his intercourse with his scholars. Does he wish to convey to them a sense of his authority? Then he ought to speak in a calm decided tone. Does he desire to stimulate them to redoubled diligence in the prosecution of their studies? He ought to address them in an encouraging tone. Does he wish to convey to them a sense of his sorrow and disappointment because of their general misconduct, or because of any particular act of moral delinquency? He should then give utterance to his sentiments in broken, faltering accents. For the accomplishment of all these objects the teacher's voice ought in general to be rather on a low than on a high pitch. Then he will, at all times, have a much greater control of his voice, and be able at once to modulate it according to circumstances. There cannot be a greater mistake than that which seems to be entertained by some teachers that order and government are best preserved by a loud, imperious tone of voice,—and, accordingly, from the commencement to the close of their school, they indulge in a bawling, stentorian vociferation. We believe that such conduct produces quite an opposite effect, and that wherever it is practised, disorder, confusion and anarchy will reign.

But we would deduce a still more important inference from the position we have already laid down, and urge the immense benefit of Music in the whole management of a school establishment. Musical sounds have an acknowledged power over the tone of the mind. Not only do they harmonize and elevate a particular tone of mind, in many cases they alter and control it. Every one knows the difference between a sportive and a melancholy air, between a dirge and a quickstep; and every one knows how readily his tone of mind assimilates with the character of the music which he chances to hear. Sacred music, well performed, renders deeper the spirit of devotion. The hilarity of a ballroom would instantly cease if the music were withdrawn. It is questionable if the martial spirit of a nation could be sustained for a single year, if music were banished from its armies, and military evolutions, whether on parade or in combat, were performed under no other excitement than the mere word of command. And it is equally, if not more, influential, with the youth in attendance at our schools. Music,