

From the Biblical Repertory.

THE HUMAN VOICE.

In treating of the economy of the human voice, there is one fact which has been very much neglected: it is this, that the exercise of the organs produce weariness, hoarseness and pain, much sooner in delivering a discourse from manuscript, than in talking or even in extemporaneous discourses. This observation was first communicated to us some years ago by an eminent member of the United States Senate, who was forced to desist from reading a document of about an hour's length, although he was in the constant habit of protracted and vehement debate. Since that time we have received complete satisfaction as to the correctness of the statement from repeated experiment, and conference with public speakers in different professions. We could name a gentleman who enjoys sound health, and who experiences no difficulty in the loudest and longest conversation, but who is invariably seized with a hoarseness upon reading aloud for half an hour; and we know a lawyer who was visited with the throat complaint in consequence of becoming a reading clerk in a legislative body. It is believed that the fact will not be questioned by any who are in the habit of practising both methods of elocution in circumstances which admit of a fair comparison.

In this case, it is evidently not the loudness of the voice which produces the unpleasant effect, because in general every man reads with less force of utterance than he speaks; and extemporaneous speakers are always more apt than others to vociferate. The phenomenon demands an explanation upon some other principle, and in our opinion admits of an easy reference to the laws of our animal economy which are already settled. We shall attempt to express our views more in detail.

Every organ of the human body has a certain natural mode of action, and in this performs its function with the greatest ease. When pressed beyond definite limits, or exercised in an unaccustomed way, it lapses into weariness or pain. By instinctive impulse we are led to give relief to any member or organ, when it is thus overworked, and whenever such remission is rendered impracticable the consequence is suffering, if not permanent injury. Thus when the limbs are wearied in walking, we naturally slacken the pace; and the perpetual winking of the eyes is precisely analogous. Let either of these means be precluded and the result is great lassitude and pain. The voice likewise demands its occasional remission, and this in three particulars.

First, As it is exceedingly laborious to speak long on the same musical key, the voice demands frequent change of pitch, and in natural conversation we are sliding continually through all the varieties of the concrete scale; so that nothing of this straining is experienced.

Secondly, The voice cannot be kept for any length of time at the same degree of loudness without some organic inconvenience. Here also we give ourselves the necessary remission, at suitable periods.

Thirdly, The play of the lungs demands a constant re-supply of air by frequent inspirations, and when this is prevented the evil consequences are obvious. Moreover this recruiting of breath must take place just at the nick of time, when the lungs are to a certain degree exhausted, and if this relief be denied even for the instant, the breathing and the utterance begin to labor. Let it be observed that in our ordinary discourse nature takes care of all this. Without our care or attention we instinctively lower or raise the pitch of the voice, partly in obedience to the sentiment uttered, and partly from a simple animal demand for the relief of change. Precisely the same thing takes place, and in precisely these two ways in regulating the volume and intensity of the vocal stream. So also, in a more remarkable manner, we supply the lungs with air, just at the moment when it is needed. The relief is not adequate if the inspiration occurs at stated periods, as any one may discover by speaking for some time, while he regulates his breathing by the oscillation of a pendulum, or the clinke of a metronome: and still less when he takes breath according to the pauses of a written discourse. But the latter is imperatively demanded whenever one reads aloud. Whether his lungs be full or empty, he feels it to be necessary to defer his respiration until the close of some period or close. Consequently there are parts of every sentence which are delivered while the lungs are laboring, and with a greatly increased action of the intercostal muscles.

If we could perfectly foresee at what moments these several remissions would be required, and could so construct our sentences as to make the pauses exactly synchronous with the requisitions of the organs, we might avoid all difficulty; but this is plainly impossible. In natural extemporaneous discourses, on the other hand, whether public or private, there is no such inconvenience. The voice instinctively provides for itself. We then adapt our sentences to our vocal powers, the exact reverse of what takes place in reading. When the voice labors we relieve it; when the breath is nearly expended we suspend the sense, or close the sentence. And when from any cause this is neglected, even in animated extemporaneous speaking, some difficulty is experienced.

The mere muscular action in speaking tends to a certain degree of weariness. Hence the utterance which is in any way unnatu-

ral is in the same proportion injurious. The use of the same set of muscles for a long time together is more fatiguing than a far greater exercise of other muscles. We are constantly acting upon this principle, and relieving ourselves by change, even where we cannot repose. Thus the equestrian has learned to mitigate the cramping influence of his posture, in long journeys, by alternately lengthening and shortening his stirrups. Thus also, horses are found to be less fatigued in a hilly than a plain road, because different muscles are called into play, in the ascents and descents. Now there are, perhaps, no muscles in the human frame which admit of so many diversified combinations as those of the larynx and parts adjacent; ranging as they do in their confirmation with the slightest modifications of pitch and volume in the sound. These organs therefore to be used to the greatest advantage, should be allowed the greatest possible change.

A perfect reader would be one who should deliver every word and sentence with just that degree and quantity of voice which is strictly natural. The best masters of elocution only approximate to this, and the common herd of readers are immeasurably far from it. Most of the reading which we hear is so obviously unnatural, that if the speaker lapses for a single moment into a remark in the tone of conversation, we feel as if we had been let down from a height; and the casual call of a preacher upon the sexton is commonly a signal for the sleepers to wake up. We all acknowledge the unpleasant effect of measured and unnatural elocution, but few have perceived what we think undeniable, that in proportion as it contravenes organic laws, it wears upon and injures the vocal machinery.

But the most perfect reading would provide only for the last mentioned case. Reading would still be more laborious than speaking, unless upon the violent supposition that the composition were perfectly adapted to the rests of the voice. We must therefore seek relief in some additional provisions. One of these is the structure of our sentences, and it is sufficient here to say that they should be short, and should fall into natural and easy numbers; for no train of long periods can be recited, without undue labor. But there is another preventive which is available, and which escapes the notice of most public speakers. Any one who has witnessed the performance of a finished flute-player has observed that he goes through the longest passages without seeming to take breath. He does indeed take breath, but he has learned to do so without any perceptible hiatus in the flow of melody. The same thing may be done in speaking and reading. Without waiting for pauses in the sense, let the speaker make every inspiration precisely where he needs it, but without pause, without panting, and especially without any sinking of the voice. That the lungs admit of education in this respect will be admitted by all who have acquired the use of the blow-pipe. In this case the passage at the back of the mouth being closed, and the mouth filled with air, the operator breathes through his nostrils, admitting a little air to the mouth in expiration. There is this peculiarity, however, that the distension and elasticity of the cheeks affords a pressure into the blow-pipe, with the occasional aid of the buccinator muscle. In this way the outward stream is absolutely uninterrupted.

If there is any justice in our remarks, we may expect to find that they apply in good degree to the delivery of discourses from memory. We have found this to be the case, in every particular, except perhaps that from more careful rehearsal, the speaker is able in a greater measure to suit his utterance to the tenor of the composition.

Diseases of the vocal organs have prevailed in America to so alarming an extent among ministers, that nothing which throws light on the economy of the voice can be without its value. It is a great mistake to suppose that these diseases are to be prevented by a timid suppression of sound. The lungs are best preserved when they are kept in full and active play. Every one who is familiar with the Latin writers, as well on medicine as on oratory; knows that they constantly enumerate reading and declamation among exercises conducive to health. Seneca, in his seventy-eighth epistle, in advising his friend Lucilius, who was of a consumptive habit, distinctly urges on him the practice of reading aloud.* Pulmonary disease in ministers is attributed by Dr. John Ware to infrequency and inequality in the exercise of the lungs. "It should," says he, "be a first object with one who engages in the clerical profession, especially if he has any of the marks of weak lungs, if he is constitutionally liable to pulmonary complaints, if he is subject to disorders of the digestive organs, or has a tendency to it, to accustom himself gradually to that kind of exertion which will be required by the duties of his future profession. This is to be attempted by the constant, daily practice of loud speaking or reading. This need waste no time, and may be made to answer other good purposes. If this kind of exercise be persevered in, it seems almost certain that all, except those whose lungs are radically infirm, may acquire the habit of going through their professional performances without injury; and as for those who fail, it is better for them at once to know their incapacity, than to spend the best years of their youth in qualifying themselves for a profession which they must finally relinquish." On

* Ut legas clarius, et sirtum, cujus iter et receptaculum laborat, exerceas.

this subject the late Professor Porter was accustomed to quote the words of the elegant and learned Armstrong:

"Read aloud, resounding Homer's strain,
And wield the thunder of Demosthenes,
The chest, so exercised improves in strength;
And quick vibrations through the bowels drive,
The restless blood."

"Reading aloud and Recitation," says Dr. Combe, "are more useful and invigorating muscular exercises than is generally imagined, at least when managed with due regard to the natural powers of the individuals, so as to avoid effort and fatigue. Both require the varied activity of most of the muscles of the trunk to a degree of which few are conscious till their attention is turned to it. In forming and undulating the voice, not only the chest, but also the diaphragm and abdominal muscles are in constant action, and communicate to the stomach and bowels a healthy and agreeable stimulus; and consequently, where the voice is raised and elocution rapid, as in many kinds of public speaking, the muscular effort comes to be even more fatiguing than the mental, especially to those who are unaccustomed to it, and hence the copious perspiration and bodily exhaustion of popular orators and preachers. When care is taken, however, not to carry reading aloud or reciting so far at one time as to excite the least sensation of soreness or fatigue in the chest, and it is duly repeated, it is extremely useful in developing and giving tone to the organs of respiration and to the general system. To the invigorating effects of this kind of exercise, the celebrated and lamented Cuvier was in the habit of ascribing his exemption from consumption, to which at the time of his appointment to a professorship, it was believed he would otherwise have fallen a victim. The exercise of lecturing gradually strengthened his lungs and improved his health so much that he was never afterwards threatened with any serious pulmonary disease."

If reading aloud and speaking, be a useful exercise, we consider singing as still more so. The organs are here brought into a different condition, the air vessels are more completely and uniformly distended, and the spirits are made buoyant by the delightful enjoyment. We have seldom known any one to be injured by the judicious practice of vocal music. An eminent professor once stated to us his conviction, that he had been preserved from consumption, to which his constitution was predisposed, only by the constant practice of singing. On this topic, the testimony of Mr. Gardiner, as a professional witness, is invaluable.

"Many writers have strongly insisted upon the danger of forcing the voice in learning to sing, thinking it may be greatly injured if not destroyed; but if we attend to facts, we shall find this to be an erroneous opinion. It is a maxim which applies to the use of all our faculties, that so long as we do not weaken, we strengthen, and this fact is strikingly true as it regards the voice. If we listen to those whose business it is to cry their commodities in the streets on comparing their strength of voice with our own, we shall be surprised to find what a force of intonation this daily practice produces. When did we ever hear of these itinerants, or public singers, or speakers, being compelled to give up their profession in consequence of a loss of voice? On the contrary this constant exertion strengthens the vocal organs, and is highly conducive to health. Many persons, in encouraging the development of musical talents in their children have no other view than to add to the number of their accomplishments, and afford them the means of innocent amusement. It was the opinion of Dr. Rush, however, that singing by young ladies, whom the custom of society debar from many other kinds of salutary exercise, is to be cultivated not only as an accomplishment, but as a means of preserving health. He particularly insists that vocal music should never be neglected in the education of a young lady, and states, that besides its salutary operation in soothing the cares of domestic life, it has still a more direct and important effect. "I here introduce a fact," remarks the doctor, "which has been suggested to me by my profession, that is, the exercise of the organs of the breast, by singing, contributes very much to defend them from those diseases to which the climate and other causes expose them. The Germans are seldom afflicted with consumption, nor have I ever known more than one instance of spitting of blood amongst them. This, I believe, is in part occasioned by the strength which their lungs require by exercising them frequently in vocal music, which constitutes an essential branch of their education. The music master of our academy has furnished me with an observation still more in favor of this opinion: he informs me that he had known several instances of persons strongly disposed to consumption, restored to health by the exercise of the lungs in singing. Dean Bayley, of the Chapel Royal, many years back advised persons who were learning to sing, as a means of strengthening the lungs, and acquiring retentive breath, to often run up some ascent, especially in the morning, leisurely at first, and accelerating the motion near the top, without suffering the lungs to play quick in the manner of panting."

CRITICS.—Critics are like cookery-books, that labour for the taste, without possessing one themselves; they seek, with their rod of office, to convert the author, as Minerva did Ulysses, with her magic wand, into an old man and a beggar.