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STAMMERING

AND

STUTTERING,

THEIR

NATURE AND TREATMENT,

BY

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247

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MDCCCLXI.

"LANGUAGE IS TO THE MIND WHAT BEAUTY IS TO THE BODY."

ARISTIDES THE RHETORICIAN.



TO MY PUPILS.

To you, my dear pupils, who have felt the physical and mental pangs attending impeded utterance, and the feeling of relief when the 'thoughts that breathe' readily find vent 'in words that burn,' I dedicate this volume.

I cheerfully acknowledge the many tokens of gratitude I have received from you, and I am equally thankful that it has been my privilege to remove or alleviate your infirmity, so that you are now enabled to do the work assigned to you in this world.

That you may succeed and prosper in the respective paths you have chosen, will always remain the sincere wish of

Your faithful Friend,

Ore House, near Hastings.

December, 1860.

JAMES HUNT



PREFACE.

The third edition of my "Treatise on the Cure of Stammering" being out of print, I have embraced this opportunity of issuing the present work in lieu of another edition of the Treatise. Though a portion of the latter is necessarily embodied in this volume, yet the whole has been so altered and so many additions and, I trust, improvements made, that it may be considered as essentially a new book. The reader may now search without disappointment for every phase of defective utterance, as the present volume contains, in a condensed form, a comprehensive survey of nearly all theories and remedies proposed in relation to impediments of speech, from the earliest period to the present time.

For reasons stated in the text, it is not pretended that a mere perusal of these pages will enable afflicted persons to cure themselves; but they certainly will derive from it every information as to the nature of vi PREFACE.

their infirmity, as well as the conviction that impediments of speech, so long held to be incurable, are as amenable to treatment as other disorders of the human frame.

One of the main objects of this work is, moreover, to impress on parents and guardians the great importance of meeting the evil in embryo, so as to prevent it taking root.

In expressing, finally, my acknowledgments for the favourable reception my former contributions to this subject have met with from the Press, the Medical Profession, and the Public generally, I may be allowed to add that it has been my anxious desire to render this little volume as complete as possible, in order to make it more worthy of the favour bestowed on its predecessors.

JAMES HUNT.

Ore House, near Hastings, December, 1860.

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CORRIGENDA.

PAGE 40.—Heading of Chapter For External Influences of Articulation read External Influences on Articulation.

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CHAPTER I.

INTRODUCTION.

Among the many calamities incidental to human nature there are few so distressing as confirmed stuttering, especially that variety which is attended with muscular contortions. Those persons who have only occasionally met with cases of defective utterance in general society, can have but a faint idea of the agony of its victims, unless they have witnessed its effects in the domestic circle, or in subjects in whose welfare they feel interested. It is, indeed, a melancholy spectacle to see a youth, born to a good position, of refined intellect, possessing extensive information, seemingly destined to adorn society, and yet, though so highly gifted, unable to give oral expression to his thoughts, without inflicting pain on those who listen to him, or

subjecting himself to ridicule; for, while the deaf-mute is pitied, the stutterer is generally laughed at.*

But not only is the victim of defective utterance debarred from the pleasures of social intercourse, he must also give up all hope of professional success, at the bar, the pulpit, the senate, and the chair, and must strike out for himself some new path for which, perhaps, neither his talent nor inclination fit him.

Nor is an impediment of speech less distressing when it affects a young female. The adage of Horace,

—"Foeminas verba balba decent,"—that stammering is becoming in females is, if not sheer irony, a poètical license. It is just possible that a slight singularity of enunciation may serve to draw attention to other graces a young lady may possess; but certain it is, that confirmed stuttering throws all the enchantments of youth and beauty into the shade, and must eventually blight her happiness.

A popular author has well depicted this distressing affliction in the following verses:—

* To laugh at the mi-fortunes of our fellow-creatures is certainly very wrong, but so ludicrous are the grimaces of most stutterers, that it is next to impossible not to laugh them in the face. The Ital an stage had, in my time, a special actor (il tartaglia) to play the part of the stutterer." (Prax. Med. Univ. J. Frank).

The Stammerer's Complaint.*

- "Has't ever seen an eagle chained to the earth?

 A restless panther to his eage immured?

 A swift trout by the wily fisher checked?

 A wild bird hopeless strain its broken wings?"
 - "Or ever felt, at the dark dead of night, Some undefined and horrid incubus, Press down the very soul, and paralyse The limbs in their imaginary flight From shadowy terrors in unhallowed sleep?"
- "Then thou can'st picture—ay, in sober truth—
 In real, unexaggerated truth—
 The constant galling, festering chain that binds
 Captive my mute interpreter of thought;
 The seal of lead enstamped upon my lips,
 The load of iron on my labouring chest,
 The mocking demon, that at every step,
 Haunts me, and spurs me on—to burst in silence."
- "I scarce would wonder if a godless man (I name not him whose hope is heavenward), A man whom lying vanities hath scath'd And harden'd from all fear—if such an one, By this tyrannical Argus goaded on, Were to be wearied of his very life, And daily, hourly foiled in social converse By the slow simmering of disappointment, Become a sour'd and apathetic being, Were to feel rapture at the approach of Death, And long for his dark hope—annihilation."

^{*}Ballads for the Times. By Martin Tupper.

Production of Speech.

The production of speech is effected by the conjoint agency of the respiratory, vocal, and articulating organs. The function of respiration may be carried on independent of articulation; but voice and speech cannot be produced without the action of the respiratory organs.

The respiratory apparatus includes the lungs, the trachea (windpipe), the ribs, and all the muscles connected with them, the diaphragm and the abdominal muscles.

The production of the voice takes place in the *larynx*—a cartilaginous box situated at the anterior part of the neck on the top of the windpipe, with which it is connected by membranes and ligaments. On looking downwards into the interior of the larynx, there may be observed on each side two folds of the mucous lining membrane. These folds, which are composed of highly elastic tissue, have received the name of vocal cords or vocal ligaments.

The inferior membranes are the organs chiefly concerned in the production of voice; hence they are called the true vocal cords, while the superior membranes are termed the false vocal cords. The narrow opening between the true vocal cords is called the *rima glottidis* (chink of the glottis) or simply the glottis.

The vocal cords are acted upon by a variety of muscles, which have the power of shortening, elongating, or stretching them, by which the varieties of pitch are produced. But though all the fundamental sounds are produced in the larynx, they may, by the action of the organs between the glottis and the external apertures, such as the pharynx, the soft palate, the tongue, the teeth, &c., be so modified as to become articulate sounds—a combination of which constitutes speech.

The muscles by which articulation is effected are, at first, only partially subject to the will. Thus we have a control over the movements of the lips, the cheeks, and the greater portion of the muscles of the tongue; but over the muscles of the pharynx, the soft palate, and those muscles of the tongue which carry its root upwards or downwards, our power is not so complete.

"We may tell the patients," observes Magendie "to depress the tongue because it hides the tonsils; they make many efforts, and it is more by chance than by volition that the action is obtained. If they are desired to raise the velum, the will has scarcely any power. It is the same with regard to the production of sounds in the larynx and in speaking. The voice is produced, we articulate without exactly knowing what movements are passing in the larynx or in the mouth. This is one of the marvellous results of animal organisation. This perfect mechanism, by which the most complicated acts are executed is not subject to the will; an admirable instinct presides, the perfection of which will always remain beyond human ken. It is this instinct which presides over the innumerable movements requisite for the production of voice and speech."

These opinions of Magendie have been much canvassed; but they are in the main correct. Magendie does not say, as he is represented, that the muscles of the root of the tongue, the soft palate, and the pharynx are not under our control, but only that they are not completely so. They may thus be considered as involuntary muscles in the act of deglutition; but they are completely under the influence of the will of a perfect speaker or singer, although, like an acrobat, he may not be cognisant of the state of the particular muscles called into motion, nor of the mode by which he effects their harmonious action.

The principal nerves upon which the healthy action of the vocal and articulating apparatus depends are:—

The inferior laryngeal branch of the 10th pair, (*Pneumo-gastric*) called, from its peculiar reflex course to the larynx, the recurrent nerve, supplying most of the muscles of the larynx.

- 2. The glosso-pharyngeal, supplying the tongue and the pharynx.
- 3. The facial nerve (portio dura), by which the movements of the face and the lips are regulated.
- 4. The hypoglossal or lingual nerve, the principal branches of which are distributed to the tongue, of which it is the principal motor; to which must be added the phrenic nerve, supplying the diaphragm, and in fact, most of the nerves connected with respiration.

All the muscles supplied by these nerves must act in harmony in the production of speech; and a want of control over the emission of voluntary power to one of these muscles may affect a number of other muscles with which they are in the habit of acting conjointly.*

We thus perceive that the process of utterance is determined by a variety of nervous tracts upon which

* For a minute description of all the organs concerned in vocalisation and articulation, the reader is referred to the Author's work, *Philosophy of Voice and Speech*. Longman and Co., 1859.

the activity of the muscles of the abdomen, the thorax, the larynx, the pharynx, the tongue, and the face depends. Though each of these organs has its peculiar functions, they must act synchronously, or in certain successions. If, then, their association be interrupted by an altered condition of any of the respective nerves or muscles, the emission of certain sounds and their articulation, becomes impeded.

Speech, then, is articulated voice; but the instant of time which intervenes between the formation of the sound in the larynx, and its articulation in the cavity of the mouth is so short, that it can scarcely be appreciated, hence the production of voice and speech appear as synchronous phenomena.

The perfection of speech depends:

- 1. On the development of the mind.
- 2. On the healthy state of the vocal and articulating apparatus.
- 3. On the right use of all the organs concerned in the production of voice and articulate sound.

The entire deprivation of speech may result from either of the following causes:

- 1. From imbecility of mind, as in perfect idiocy.
 - 2. From deafness, congenital, or acquired, and
 - 3. From serious defects in the organs of speech.

The state technically called Alalia,* or muteism, does not any further concern us, the subject of this treatise being Dyslalia,† which consists, either in the impossibility or difficulty of correctly forming and enunciating certain articulate sounds, or of properly conjoining the elementary sounds for the purposes of distinct utterance. Dyslalia thus embraces every species of defective utterance, each appearing under a variety of forms.

Synonyms expressive of impediments of speech in general in various languages.

Hebrew.—Kobad peh (slow of speech); loag (to stammer); eleg (a stutterer).

Greek. — Psellismos; Traulismos; Ischnophonia; Battarismos.

LATIN.—Balbuties; blaesitas; haesitantia linguae.

French.—Begayer; barbouiller; balbutier; bredouiller.

Italian.—Balbetare; tartaliagre; scingulatio.

* A, priv. lalia, speech. See the chapter on deaf-dumbness, Philosophy of Voice and Speech. Longman and Co., 1859.

[†] Dys, difficult; lalia, speech.

Spanish.—Tartamudear.

Gaelic.—Gaggach; gagganach (a stutterer); mandach (lisping); briot (chitter-chatter).

Anglo-Saxon.—Stomettan; stamer; phlips; melyst.

GERMAN.—Stammeln; stottern; anstossen.

English .- Stammer; stut; stutter; lisp.

CHAPTER II.

STAMMERING AND STUTTERING DEFINED.

THE MEANING OF WORDS.*

- "When I began to examine the extent and certainty of our understanding, I found that it had so near a connection with words that, unless their force and manner of signification were first well observed, there would be very little said clearly and pertinently concerning knowledge."
- "He that shall consider the errors and obscurity, the mistakes and confusion that are spread in the world by an ill-use of words, will find some reason to doubt whether language, as it has been employed, has contributed more to the improvement or hindrance of knowledge among mankind."
 - "I know there are not words enough in our language
 - * Extracts from Locke's Essay on the Human Understanding.

to answer all the variety of ideas that enter into man's discourses and reasonings. But this hinders not that when he uses any term he may have in his mind a determined idea, which he makes it the sign of, and to which he should keep it steadily annexed during that discourse."

It will presently appear how forcibly these just remarks of our great philosopher apply to our subject.

Stammering as contra-distinguished from Stuttering.

The terms "stammering" and "stuttering" are in this country synonymously used to designate all kinds of defective utterance. In no English work written upon this subject has the exact discrimination between these disorders, which differ both in kind and in origin, been laid down with scientific correctness. From this confusion of terms have arisen many errors in theory and in practice, for no treatment can be efficacious unless our diagnosis be correct.

It is, therefore, requisite that the distinctive character of each affection should be clearly defined at the very outset.

Stammering (per se) is characterised by an inability or difficulty of properly enunciating some or many of the elementary speech-sounds, accompanied or not, as the case may be, by a slow, hesitating, more or less indistinct delivery, but unattended with frequent repetitions of the initial sounds, and consequent convulsive efforts to surmount the difficulty.

Stuttering, on the other hand, is a vicious utterance, manifested by frequent repetitions of initial or other elementary sounds, and always more or less attended with muscular contortions.

Having thus concisely stated the distinctive mark of each disorder, I proceed to consider them in their individual characters.

Stammering and its Causes.

Vowel Stammering.—The belief that stammering occurs only in the pronunciation of consonants is certainly erroneous; the vowels are equally subject to this defect, though not to the same extent as the consonants. The proximate causes of defective vowel sounds, may have their seat either in the vocal apparatus, or in the oral canal. The original sounds may be deficient in quality, from an affection of the vocal ligaments, as in hoarseness; or the sounds may be altered in the buccal and nasal cavities, from defects,

or an improper use of the velum; in which cases the vowels are frequently aspirated. Enlargement of the tonsils, defective lips and teeth, may also influence the enunciation of the vowels. But the whole speech-apparatus may be in a healthy state, and yet the enunciation of the vowels may be faulty, from misemployment, or from defective association of the various organs upon which the proper articulation of the vowels depends. In some cases the faulty pronunciation may be traced to seme defect in the organ of hearing.

Defective enunciation of Consonants.

Consonantal Stammering may, like that of the vowels, be the result of an organic affection, either of the vocal apparatus, or of the organs of articulation. When, for instance, the soft palate, either from existing apertures or inactivity of its muscles, cannot close the posterior nares, so that the oral canal may be separated from the nasal tube, speech acquires a nasal timbre, and the articulation of many consonants is variously affected. B and p then assume the sound of an indistinct m; d and t sound somewhat like n; and g and k like ng. The action of the velum during speech is thus described by Sir Charles Bell.

"In a person whom I had the pain of attending long after the bones of the face were lost, and in whom I I could look down behind the palate, I saw the operation of the *velum palati*. During speech it was in constant motion; and when the person pronounced the explosive letters, the velum rose convex, so as to interrupt the ascent of breath in that directon; and as the lips parted, or the tongue separated from the teeth or palate, the velum recoiled forcibly."

On the other hand, closure of the nasal tube either from a common cold or other obstructions, affects the articulation of m, n, ng, which then sound nearly as b, d, g, hard. (See Rhinism).

The Chief Causes of Stammering.

The variety of defects which constitute stammering result either from actual defective organisation or from functional disturbance. Among organic defects may be enumerated: hare-lip, cleft-palate, abnormal length and thickness of the uvula, inflammation and enlargement of the tonsils, abnormal size and tumours of the tongue, tumours in the buccal cavity, want or defective position of the teeth, &c.

Dr. Ashburner, in his work on Dentition, mentions

a very curious case of a boy who, though not deaf, could not speak. This he attributed to the smallness of the jaws, which taking at length a sudden start in growth by which the pressure being taken off from the dental nerves, the organs became free, and the boy learned to speak. Considering that the teeth play but a subordinate part in articulating-for all the speech sounds, including even the dentals, may be pronounced without their aid, as is the case in toothless age—it is certainly not a little singular that the mere pressure on the dental nerves should produce such an effect. It is very possible that in this case the motions of the lower jaw and of the tongue were impeded, but even then, it is not easy to account for the fact that the child never attempted to articulate, however imperfeetly.

When the organs are in a normal condition, and the person is unable to place them in a proper position to produce the desired effect, the affection is said to be functional. Debility, paralysis, spasms of the glottis, lips, &c., owing to a central or local affection of the nerves, habit, imitation, &c., may all more or less tend to produce stammering.

From these observations it may be inferred that stammering is either *idiopathic*, when, arising from

causes within the vocal and articulating apparatus; or it is symptomatic, when, arising from cerebral irritation, paralysis, general debility, intoxication, &c. Children stammer, partly from imperfect development of the organs of speech, want of control, deficiency of ideas, and imitation, or in consequence of cerebral and abdominal affections. The stammering, or rather faltering of old people chiefly arises from local or general debility. The cold stage of fever, intoxication, loss of blood, narcotics, may all produce stammering. Stammering is idiopathic and permanent in imbecility, when the slowness of thought keeps pace with the imperfection of speech. It may also be transitorily produced by sudden emotions. Persons gifted with great volubility, when abruptly charged with some real or pretended delinquency may only be able to stammer out an excuse.

Stuttering.

The main feature of stuttering consists in the difficulty in conjoining and fluently enunciating syllables, words, and sentences. The interruptions are more or less frequent, the syllables or words being thrown out in jerks. Hence the speech of stutterers has

been by Shakspeare* (and by Plutarch before him) aptly compared to the pouring out of water from a bottle with a long neck, which either flows in a stream, or is intermittent; the patient in the former case, feeling that his glottis is open, endeavours to pour out as many words as possible before a new interruption takes place. The stoppage of the sound may take place at the second or third syllable of a word, but occurs more frequently at the first, and the usual consequence is, that the beginning of a syllable is several times repeated until the difficulty is conquered. The stutterer, unless he be at the same time a stammerer, which is now and then the case, has generally no difficulty in articulating the elementary sounds, in which respect he differs from the latter; it is in the combination of these sounds in the formation of words and sentences that his infirmity consists.

Stuttering does not obtain to the same degree in all persons. In the most simple cases the affection is but little perceptible; the person speaks nearly without in-

^{* &}quot;I pr'ythee, tell me, who is it? quickly, and speak apace. I would thou could'st stammer, that thou might'st pour this concealed man out of thy mouth, as wine comes out of a narrow mouthd bottle, either too much at once, or none at all. I pr'ythee take the cork out of thy mouth, that I may drink thy tidings." As You Like it. Act 3. Sc. 2.

CHAPTER III.

MINOR DEFECTS OF ARTICULATION.

Defective enunciation of the consonant r.—Rhotacism. French, Grasseyement, parler gras. English, rattling, burring. German, Schnarren.

The mechanism in the production of this consonant is very complicated, requiring considerable efforts of various organs.* This may be one of the reasons why in some languages, as for instance in the Chinese, it is altogether wanting, and l substituted for it. The consonant may be produced in two ways, in front or behind; so that we have a lingual r, and a guttural r. The former is the result when the tip of the tongue touches and vibrates against the hard palate, while the latter, or the guttural r, is produced by the contact between the posterior part of the tongue and the soft palate, when the vibration of the uvula is effected by the passing air current. The lingual r is considered as the

* The difficulty of articulation in the various races of men is very curious, e.g., it was noticed long ago by Capt. Cook, Sir Joseph Banks, and others, that the Negro could pronounce any English word, while the Polynesians could not pronounce any English word of more than one syllable.

legitimate speech-sound, whilst the guttural enunciation is looked upon as a fault, especially in public speakers. From the difficulty of its enunciation, r is the last letter children learn to articulate; they at first pronounce l instead of it until at length the sound is mastered.

The defective enunciation of this consonant has no^t escaped the notice of the ancients. Plutarch says of Alcibiades "He had a lisping" in his speech, which became him, and gave a grace and persuasive tone to his discourse." Aristophanes, in those verses wherein he ridicules Theorus, takes notice that Alcibiades lisped, for instead of calling him corax (raven) he called him colax (flatterer), from whence the poet takes occasion to observe that the term in that lisping pronunciation too was applicable to him. With this agrees the satirical description which Archippus gives of the son of Alcibiades—

"With sauntering step to imitate his father, The vain youth moves; his loose robe wildly floats; He bends the neck—he lisps."†

The correct articulation of r seems to have been one

* The translation of lisping is scarcely correct according to the meaning we attach to the word; the original is traulotea. Traulos, traulotes, evidently refer to the inability of articulating the letter r, though traulizo, traulismosare frequently us ed for stammering in general.

[†] Langhorn's Plutarch.

of the difficulties encountered by Demosthenes. Cicero* said, his speech was so inarticulate that he was unable to pronounce the first letter of the art he studied, viz., Rhetoric. By practice he effected so much that no one is thought to have spoken more distinctly. Demosthenes was, therefore, not of opinion that the defective enunciation of r gives, as Plutarch observes, a persuasive turn to a discourse. The fact is, that though tolerated in an Alcibiades and in a pretty girl, rattling is a grave fault in a public speaker, sometimes very disagreeable to listen to, and in some cases insupportable.

Rhotacism is more common among the northern than among the southern nations. The defect is rarely met with among Spaniards and Italians. Owing chiefly to imitation there are whole provinces which use the guttural r. In our own country, we may mention Northumberland (the Newcastle burr) \dagger It is comparatively rare that a person can neither pronounce the guttural nor the lingual r; but such instances do

^{* &}quot;Demosthenes quum ita balbus esset, ut ejus ipsius artis cui studeret (sc. rhetoricae) primam literam (sc. r.) non posset dicere." Cicero adds, "perfecit meditando ut nemo planius esse locutus putaretur."

 $[\]dagger$ In some places it is universal, as in Denmark, in Marseilles, and also in Paris, where the enunciation of the r seems to some extent subject to the fashion of the day.

The main cause of the production of the guttural, instead of the lingual r is, that the tongue is kept in a convex position, and vibrates at the base instead of being concave towards the palate, and vibrating the tip of the tongue against the roof. Talma, the celebrated French actor, proposed the following method for the removal of this defect: Choose for the first exercises a word in which there is but one r, preceded by a t,—travail for instance. Write tdavail, by substituting d for r. The pupil will then pronounce t and d separately thus—t-, d-, avail; insensibly he will add the mute e and pronounce te-davail; by inducing him to pronounce more rapidly he will nearly drop the mute e and say tdavail. The pupil must now be urged to pronounce as rapidly as possible, uniting the sound of t with that of d, giving more force to the articulation of t. By this proceeding, the lingual r is insensibly articulated, seemingly produced by the rapid union of t and d: Other exercises must follow until the vicious habit is abandoned. This method is said to have been, long before, used to teach the production of r in the Institution for Deaf-mutes in Erfurt. By this simple method, observes Fournier, who described it, numbers of cures have been effected, and he cites as an instance, the pretty

and accomplished actress, Mlle. St. Phal, who had, owing to her defective articulation of r, to retire from the stage for a time. When she re-appeared adds the gallant professor, her enunciation was so much changed that she would not have been recognised by the spectators but for her charming face.

In our own language, either from inability to pronounce the canine letter, from habit, imitation, and in many cases, from pure affectation, w is frequently substituted for r. Roman is pronounced Woeman; rubbish, wubbish, &c .- a vicious habit which, in spite of Mr. Punch's weekly castigations, still obtains amongst our would-be exquisites. In justice to modern dandyism it must be stated that affected rhotacism is not of recent origin. Lentilius, a famous physician of the 17th century, remarks on this subject that, although no sane man can subscribe the stupid opinion that there is anything graceful in stammering, yet he remembers having known in Saxony some noble young ladies who, though well able to pronounce the canine letter, made the greatest effort to acquire a stammering (dropping the r) enunciation which, in their opinion, was more graceful, and a sign of gentility.*

As there is nothing new under the sun, so we find

^{*} Lentilius, R. Med. Pract. Miscell. Ulmae, 1698.

that old Ovid* already complained that some study to weep with propriety, and can cry at any time and in any manner they please. They moreover deprive the letters of their legitimate sounds; they contract the lisping tongue, and seek for grace in a vicious articulation of the words. They learn to speak worse than they actually can.

The following extract in relation to rhotacism may, perhaps, interest the reader.

The Wonders. +

"There is a village in this county named Charleton, surnamed Curley, and all that are born herein, have a harsh and wratling kind of speech, uttering their words with much difficulty, and wharling in the throat, and cannot well pronounce the letter r. Surely this proceedeth not from any natural imperfection in the parents (whence, probably, the tribual lisping of the

* . . . Discant lacrimare decenter
Quoque volunt plorant tempore, quoque modo
Quid? cum legitima fraudatur littera voce,
Blaesaque fit jusso subdola lingua sono?
In vitio decor est, quaedam male reddere verba,
Discunt posse minus, quam potuere loqui.

Ov. Ar. Am. 3, 293.

Ephraimites did arise, Judg. xii. 6.), because their children, born in other places, are not haunted with that infirmity. Rather it is to be imputed to some occult quality in the elements of that place. Thus, a learned author (J. Bandin Method. Hist. cap. 5) informeth us, that some families at Lubloin, in Guyen, in France, do naturally stut and stammer, which he taketh to proceed from the nature of the waters.

"As for the inability distinctly to pronounce r, it is a catching disease in other counties. I knew an Essex man, (Mr. Jos. Mede), as great a scholar as any in our age, who could not, for his life, utter *Carolus Rex Britanniæ*, without stammering. The best was, the king had from him in his hearty prayers what he wanted in his plain pronunciation.

"My father has told me, that in his time, a fellow of Trinity College, probably a native of Charleton, in this county, sensible of his own imperfection herein, made a speech of competent length, with select words both to his mouth and for his matter without any r therein, to show that men may speak without being beholden to the dog's letter."

From what I have been able to ascertain, the present inhabitants have neither this defect, nor has the "oldest inhabitant" any knowledge of its ever having prevailed in the district.

Sigmatism, from the Greek $\varepsilon igma$, comprehends the various defects in the enunciation of the sibilants or hissing sounds, s, z, zh, &c. Our own word to lisp is probably derived from the sound: Anglo-Saxon wlisp, German lispeln, French sesseyer. Though the Greeks used the word psellismos for impediments of speech in general, it seems that psellos specially meant a lisper, and the word is, according to Hesychius, an onomatopoiea. The substitution of t, or th for s, or vice versâ, is the most common expression of the vice of lisping, for it is certainly no beauty of enunciation, whatever may be the opinion of our young ladies.

If lisping does not proceed from an abnormal condition of the tongue and the position of the teeth, it is the result of habit and affectation. This peculiar utterance of the sibilants, arises mostly from the inappropriate action of the tongue against the teeth.

Our th seems to be the shiboleth of foreigners, who do not possess this sound. In their attempts to enunciate the sound, they pronounce tinker or dsinker for thinker, &c.

Rhinism or Rhinophonia (speaking through the nose).

—In the normal state of articulation, the sounds escape more or less both by the mouth and nostrils. When either of these passages is closed, or when any one

attempts to speak or sing more than usually through one channel, the sound acquires that disagreeable quality, the nasal timbre, which thus arises from two opposite causes. When the dorsum of the tongue is raised, and the soft palate descends, the air can only partially flow out by the buccal cavity, in which case the sounding air-current passes into the nasal cavity, and escapes by the external nostrils. There results, from this, what is commonly termed the nasal twang, and the expression "speaking through the nose," is sufficiently correct. But the very same effect may be produced by the opposite cause of obstructions existing in the nasal cavities, either from inflammation of the mucous membrane, tumours, or by holding the nose, so as to prevent the sound escaping by the nostrils. such cases, it is clear the person does not speak through the nose, but through the mouth. From imitation and habit, there are whole nations who rejoice in that peculiar twang, which distinguishes the genuine Yankee. It is by obtaining a great command over the action of the vocal and articulating organs, that many persons become adepts in altering the normal action of their organs, and in imitating the voice and speech of others.

Cluttering.—French. Bredouillement, is an anomalous enunciation, which consists in pronouncing words and

sentences with such rapidity, that the syllables appear only half articulated, and the speaker becomes, consequently, unintelligible.

This vice must be distinguished from mere talkativeness, and specially from its morbid aggravation lallomania—an irresistible impulse to talk—resulting, no doubt, from some cerebral affection. Cluttering is, also, distinct from pattering, assumed by some of our actors and entertainers, for the purpose of diverting their audience. Pattering is a feat which may be acquired by much practice, cluttering is a vice which, unless cheeked at the proper time, may become habitual. There are no other means of remedying it but by enjoining the pupils to articulate slowly, and recite rhythmical exercises, and thus prevent them crowding and gluing their words together. With regard to natural pattering, or abnormal rapidity of utterance, it will generally be found that little persons, of a sanguine temperament, are much more inclined to it than the tall and phlegmatie. The reason seems to be that, in the former, the circulation and respiration is more rapid, and their ideas, possibly, present themselves more readily, while in tall and phlegmatic persons, the pulse being slower, and the respiration proportionally less frequent, the utterance keeps pace, and is more sedate

CHAPTER IV.

STATISTICS OF PSELLISM.

Colombat (Tableau Synopt. & Statistique) assumes that there are, in France, about 6,000 persons labouring under defective articulation, or nearly 1 in 5,000. There can be no doubt that the actual proportion is much greater. Colombat himself admits that he included in his estimation such only whose impediments were strongly marked. In Prussia, which, in 1830 contained a population of about 13,000,000, the number ascertained from the official returns of many places, was calculated to amount to more than 26,000 cases for the whole kingdom. According to this calculation, taking the population of the globe to amount to about 1000,000,000, the number of stutterers and stammerers, would, form an army of 2,000,000, of which London alone would possess nearly 6,000. It would be very desirable that at the Census, or whenever an opportunity may occur, the Registrar-General would employ the means at his

disposal to ascertain the actual number of persons labouring under various impediments of speech in Great Britain, which, I have little doubt will approach the proportion of 3 in 1,000.

It is unquestionable that psellism is far less frequent in females than in men. Jtard declares he never met with a female stutterer, though he does not deny that such exist. According to Colombat, one woman only in 20,000 stutters, while the proportion, according to the same authority, in men is 1 in 5,000.

Reasoning a priori, one would imagine that stuttering should be more prevalent among females than among males. If the cause of stuttering depends upon nervous susceptibility, and if it be nearly allied to chorea, females should suffer from it in greater numbers. Again, if, as some gratuitously assume—without a shadow of reason—that woman thinks more rapidly than man, the probable effect should be that the words would not keep pace with the thoughts. Aristotle, (for Rullier seems to have borrowed the idea from him) already considered that one of the causes of stuttering was, that the words did not proceed pari passu with the thoughts, on account of the flight of the imagination. Again, if timidity be one of the causes of stuttering, the fair sex should, from their natural bashfulness, be more

liable to it. Setting aside the theory of final causes, viz: that nature, in order to compensate woman for her weakness, has bestowed upon her a powerful weapon in the gift of the tongue, we must, then, rest satisfied with the physiological fact, that the vocal and and articulating apparatus of woman being more elastic and mobile than that of man, is less liable to be affected by some of the minor causes which produce the infirmity in the male sex. In illustration of this fact it may be stated that, the male voice rarely, if ever, reaches such a compass as that possessed by some female singers, such as Catalani, or Sessi, &c.

I have full reason to believe the estimate above, far too low, at least, for this country. Many cases of female stutterers have come under my notice, some of which, of a very severe nature, requiring the greatest care in treatment. The habitual timidity of women frequently aggravated by a derangement of the nervous system, combines to produce more intricate cases than in men, and require more time and patience to arrive at a successful issue.

It would equally be an interesting subject of inquiry, to ascertain, as far as possible, the influence of different languages and dialects upon the causation of impeded articulation. At present, our data are insufficient to

found on them any correct theory. It is presumable, that a soft flowing language may not produce such a per centage of stutterers as a harsh and guttural one; climate and other circumstances may also have a considerable influence.

Colombat mentions that a son of Mr. Chaigneau, the French Consul, in Cochin-China, born of a Chinese mother, and who, from his infancy, spoke the languages of both his parents, expressed himself with the greatest facility in the Chinese dialect, but stuttered much in speaking French, which he was chiefly in the habit of using. Colombat attributes this to the rhythmical structure of the Chinese, and the peculiar intonation required to distinguish similar words. (See *Philosophy of Voice and Speech*, page 185.)

It appears to me, that if it be true, as has been asserted on very slender grounds, that there are no stutterers in China (for the whole nation stammer, at least, in our acceptation of the term, inasmuch as they cannot pronounce the canine letter), the circumstance is not so much owing to the sing-song, nor to the rhythmical structure of the Chinese language, but chiefly to its being a mono-syllabic tongue.

In Great Britain I think there is an excess of the average amount of stutterers in the north, where our

language meets the Gaelic. Where a mixed language is spoken, the majority are unable to speak the one or the other perfectly, and the result is, that they find a difficulty at both, whence arises a certain hesitation, the forerunner of stuttering. If this be true, we might, a priori, expect a large number of stutterers and stammerers at the frontiers of countries in which the languages differ; but I am not aware whether such be the fact.

Another question has been much discussed, namely, whether psellism be the privilege of civilization or not. All travellers, who have long resided among uncultivated nations, and whose authority is of any weight, maintain that they never met with any savages labouring under an impediment of speech.* Granting it to be so, it is not easy to say whether this immunity is owing to the more ample physical development of the buccal cavity in savages, to the nature of their dialect, or to their freedom from mental anxieties and nervous debility, the usual concomitants of refinement and civilization. My impression is, that the latter circumstance offers the best explanation of the alleged fact.

* De Froberville (Bull. de la Soc. Geogr. Juin, 1852), speaks of a stuttering negro-tribe, the Neambaga; they intercalate the syllable, shill, or any other, in the middle of each word.

CHAPTER V.

EXTERNAL INFLUENCES OF ARTICULATION.

THE doctrine of hereditary transmission both of corporeal and mental qualities from parent to offspring, as shown in external resemblance and similarity of internal organization, has, at all times met with much favour. But while there are some who assert that, excepting acute fevers, nearly all affections are transmitted by the parent to the child, there are some eminent physiologists who totally dissent from this doctrine, both as a matter of fact and theory. Dr. Louis goes even so far as to consider variation the rule; and conformity the exception. Thus, with regard to temperament, he observes, that children, born of the same parents, nearly always exhibit different temperaments; some are of a bilious, others of a sanguine, or a phlegmatic temperament. Twins frequently differ in this respect. Even the famous Hungarian sisters who lived twenty-two years, are described as having been most dissimilar in temperament and dispositions, although they were like

the Siamese twins, joined together, and had a communicating system of blood vessels.

In accordance with this doctrine, impediments of speech have also generally been considered as hereditary affections, and as the male is believed to influence more the external resemblance, and the female more the internal organism, when hereditary on the female side, it is said to spread upon a greater number of a family. Certain it is, that many stammerers and stutterers consider their affection as an inheritance, and account for it that they have a parent or collateral relation labouring under the same infirmity. It is equally true, that many instances can be adduced where the defect has descended for several generations, and I have, myself, had under my care several children thus afflicted out of one family where the parents stuttered.

S. Lucas* who assumes that not merely external resemblance, and internal organization, but moral and intellectual aptitudes are directly transmitted, gives the following instance of hereditary loquacity. A servant girl talked so incessantly, either to others or to herself, that her master found it necessary to dismiss her, when she exclaimed "But, sir, it is not my fault; it is not

^{*} Traité Philosoph. et Physiol. de l'herédité naturelle, Paris, 1847.

my fault; it comes to me from my father, who tormented my mother in the same way, and he had a brother who was just like me."

Now without at all denying the transmission even of organic defects—the statistics of deaf-muteism* having placed this question beyond any doubt, I still contend that stuttering as such, is not an inheritance, not being, as deaf-muteism, the result of defective organisation. All that can be safely asserted amounts to this: that as nervous affections are, more or less transmissible, hereditary influence may be at work in causing a pre-disposition to contract the habit of stuttering whenever the subject is placed in certain circumstances favourable for its development

Influence of Temperature.

That sudden variations of temperature, changes of the season, extreme heat or cold, have some influence, (as in most nervous affections,) in either increasing or diminishing the infirmity, merely confirms the theory, that stuttering is a functional disorder. Colombat asserts, that stuttering increases in winter and summer,

^{*} See Philosophy of Voice and Speech, chap. xix.

and diminishes in autumn and spring, provided they are temperate and moist, and that dry air in frost and great heat act inversely.* This is opposed to the experience and practice of Mercurialis, who would confine the patient in a dry and heated atmosphere. The affection is also said to be more sensible in the morning than in the evening. According to my own experience, all these assumptions are more fanciful than real. No certain rules can be laid down in this respect. The dry or damp state of the atmosphere, its electrical condition, and the changes of the season, influence stuttering according to the idiosyncrasy of the subject, so that the same external influences produce among a number of stutterers collected under one roof, opposite effects.

Temperament.—That the majority of stutterers belong to what are termed the sanguine and nervous temperament is true enough: but it is an error to suppose that they are exclusively of this class. All temperaments yield their quota, and some of the more severe cases which I had under my care were subjects of a lymphatic,

^{* &}quot;Aetna was very furious when we passed, as she useth to be sometimes more than others, specially when the wind is southward, for then she is more subject to belching out flakes of fire, as stutterers use to stammer more when the wind is in that hole. (Howel's letters, 1655.)

temperament, who, though less tractable than those of any other temperament, rarely relapsed after being once cured.

Psychical Influences.

EVERY passing emotion influences more or less the action of the heart and the respiratory functions, either in accelerating or retarding them, and as the production of voice is intimately connected with the act of respiration, it is not surprising that the vocal and articulating apparatus is instantly affected by the state of our feelings and thoughts. If, on the one hand, slight emotions increase the infirmity of stuttering, violent emotions, wrath, fear, danger, or severe injury, may remove it by the excitation of cerebral action; the motor agents of the articulation receive a new impulse and vigour, and the person who could scarcely produce a word, expresses himself with remarkable energy. On the other hand, voice and speech may be suddenly lost under the influence of powerful emotions. The following cases, presenting opposite effects, may serve as illustrations:-

In January, 1833, three gentlemen, MM. Dub... Mart... and Ou..., stutterers to a painful degree, went to the French Academy of Sciences, for the purpose of being examined before a Commission prior to the commencement of their treatment under Mr. Colombat, then a candidate for the prize Monthyon. On leaving the Academy, they entered a tobacconist shop to purchase some cigars. Mr. Dub...who was the least timid, commenced his address, "Dooo do doo donnez mois des ci des ci des cigarres." It so happened that the tobacconist was himself a terrible stutterer; he was thus by no means surprised to have found a comrade in affliction, but he was certainly far from imagining that the other two were similarly affected. When, therefore, the tobacconist asked "de-dede-de-dedequel quel qua-qua-qu qua qualité vou-vou-voulez vous les-les cigarres," and all three began horribly to stutter; he flew into a violent rage, thinking that they merely came to have a lark. He, therefore, seized a stick to belabour them, whilst he swore at, and threatened them in the most energetic terms, without the least impediment in his speech. Fortunately the arrival of Mr. Colombat put an end to the scene, by informing the enraged tobacconist of the real facts of the case.

The Courrier de Lyon (Feb., 1860,) relates the following sad result of a practical joke:—" An apprentice

of that city, who had been out catching frogs last week, brought several home alive, and to play his brother a trick, put three of them in his bed. In the middle of the night the frogs, finding the bed too warm, tried to get out, and one of them happened to crawl on the lad's face and awoke him. Feeling something cold and clammy on his cheek, the lad was dreadfully frightened, and leaped out of bed, calling for help. When his parents came they found him lying on the floor in strong convulsions, which were, however, relieved by proper treatment, and the boy has since resumed his usual occupation, but has lost the faculty of speech."

My note-book is filled with such instances. One of the most severe cases of stuttering I ever saw, was caused by the parent stamping and calling out in a loud voice, "silence." His son, aged eight, who was running across the room, fell on hearing his father's voice. When he got up, he began stuttering very violently.

A pupil, who has recently left me quite cured, stated that his infirmity was caused by the fright of being run after by an Irish tramp.

Esquirol, in his Treatise on the great influence of violent impressions on the organs of speech, relates that a person who by accident had lost his power of speech, suffered for years patiently the scoldings of his wife. One day, being more than usually ill-treated, he became so much enraged, that his tongue, hitherto paralysed, recovered suddenly its mobility, so that henceforth he repaid his Xanthippe with compound interest.

There appeared lately, in the Cologne Gazette, an extract from the Magdeburg Journal, to the following effect:—A shoemaker in Domschutz, near Torgau, named Grühl, had a son nineteen years of age, who had lost his voice when he was ten years old. In the night before last Christmas the young man had a vision, which commanded him to join in the responses on Christmas day. From fear the young man had hid himself under his bed covering, and fell into a profuse perspiration. The next day he was completely cured.

A woman in the south of France, who had lost her speech from sleeping with her head uncovered in the sun, recovered it suddenly two years afterwards when her house was on fire.

Herodotus gives the following account of the son of Croesus:—

"Croesus had a son, who was a fine youth, but dumb. Everything had been done for him by his father. He also sent to Delphi to consult the oracle, and Pythia answered as follows:—'Lydian, though thou art a powerful prince, yet of a foolish heart. Expect not to hear in thy palace the desired voice of thy son, that will be of no use. Know he will first speak on the most unfortunate day.'

'When now the city (Sardis) was conquered, one of the Persians approached Croesus to slay him, for he knew him not. And when Croesus perceived it, he was careless about being struck down, having been so unfortunate. But when his young son saw the intention of the Persian to kill his father, fear and anxiety released his voice, and he spoke: 'Man, kill not Croesus!' This was the first word which he spoke and he continued to speak all his life."

Dr. Todd terms such a loss of speech, met with in patients subjected to some powerful emotion, "emotional paralysis." It occurs, he says, in men of hypochondriacal habits, and in women too. The power of speech returning usually in a few days, and rapidly, after the patient has gained the ability of pronouncing "Yes" or "No."

Influence of Imitation.—The tendency to imitate the actions of others is so intimately connected with the nature of man, that Aristotle has by way of distinc-

tion, called him an imitating animal. I do not speak here of voluntary and deliberate imitation, but of that almost irresistible propensity to catch and to repeat the expressions and actions of other human beings with whom we come in contact. This tendency exhibits itself in its greatest intensity in childhood and early youth. Long before children can appreciate our motives, they imitate our actions. The faculty is instinctive, both in man and many animals, and differs from the power of voluntary imitation, possessed by man in the highest degree, that it is a deliberate act, determined by various motives.

The most familiar illustration of involuntary imitation is the irresistible inclination to imitate the act of yawning, which is so little under the influence of the will, that the more we resist the execution of the movement, the greater is the desire to effect it. The history of epidemics, religious revivals, &c., and the medical records, afford the most conclusive proofs of the infectious nature of emotions, and their physical manifestations, convulsions, fits, &c.

The imitative propensity exhibits itself in earliest childhood, and nothing is more common than to see infants assume the gestures and habits of those by whom they are constantly surrounded. This susceptibility may, it is true, differ in various subjects in degree, but not in kind. There are, in fact, but few irregular actions, manifested externally, which are not instinctively imitated by children. It is, therefore, beyond question that, like squinting, winking with the eyes, and many other habits, both stammering and stuttering arise, in most cases, from unconscious, or may be, voluntary imitation. Seeing, then, that the habit is so easily contracted, we are scarcely justified in considering it as an hereditary affection, even in such cases where one of the parents stammers. In by far the greater number of cases which came under my observation, I found that the evil was neither hereditary nor congenital, but could be traced to the prodigious influence of voluntary or involuntary imitation, One stammerer or stutterer in a family is quite sufficient to inoculate the rest; and so rapid is the contagion to a susceptible child, that I have had pupils who have contracted the habit by a single interview with a stutterer. I must here strongly warn all young persons against stammering either in mimicry, or for the baser purpose of deceiving their teachers, in order to avoid some task, as I have had pupils who have confessed their serious impediment to be the result of one of these practices.* I am in a condition to adduce numerous instances of this kind from my own experience, but I shall only add two illustrations, so graphically described by an eminent authority on this as on other subjects. "I knew of a young man, who used for his little brothers and sisters' amusement, to act some stammering relation. One day he found that his acting had become grim earnest. He had set up a bad habit, and he was enslaved by it. He was utterly terrified; he looked on his sudden stammers (by a not absurd moral sequence) as a judgment from God for mocking an afflicted person; and suffered great misery of mind, till he was cured by a friend of mine, to whom I shall have occasion to refer hereafter."†

* A much respected clergyman of the Church of Scotland, who lately consulted me, writes to the following effect: "I was entirely free of it till I was five years of age, when at that time of life there was a gentleman who was in the habit of occasionally frequenting my father's house, who indeed stammered very badly, and I distinctly remember one afternoon trying to imitate him, when unfortunately he heard me, and was very indignant, and so ashamed were my parents at my conduct, that after he had gone, I was taken to task and punished severely for it, and ever since that night I have been afflicted with this most distressing malady."

[†] The Irrationale of Speech. By a Minute Philosopher.— Fraser's Magazine, July, 1859.

"One of the most frightful stammers I ever knew began at seven years old, and could only be traced to the child's having watched the contortions of a stammering lawyer in a Court of Justice. But the child had a brain at once excited and weakened by a brain fever, and was of a painfully nervous temperament."

Remarks on Certain Received Opinions in Relation to Stammering and Stuttering.

1.—Persons do not stutter in singing.—It is undeniable that stuttering obtains much less in singing. The simple reason is, that in singing the breath is more regulated, the glottis is open, and the action of the vocal apparatus is not so much interrupted as in common speech, which requires a constant change in the position of the articulative organs. For a similar reason, though in a less degree, stuttering is not so appreciable in recitative as in declamation. Something analogous takes place in intoxication; an inebriated man is sometimes able to run, but finds it a rather difficult matter to stand at ease or walk steadily. The same singular phenomena occur now and then in rheumatic and nervous affections. Gaubins cites the case of a man who could run, but not walk steadily; and Astrié had a lady under his cars who walked lame, but danced elegantly.

It is, however, not true that the above rule applies generally. I have had under my care subjects who also stutter in singing, which certainly renders the case more complicated.

- 2.—There is no Stuttering in Whispering.—The reason why generally there is no stuttering in whispering is, that in that mode of utterance there is no necessity of a synchronous action between the muscles of the larynx and the oral canal, the breath being articulated without the participation of the vocal ligaments; but if the fault lies, as in a few cases it does, in the action of the articulating organs, there will be, and there is, stuttering in whispering, as I have frequently had occasion to convince myself.
- 3.—When alone persons do not stutter nearly as much as when in Company.—Timidity, and the fear of stuttering, no doubt, in many instances increases the infirmity; hence, generally speaking, patients are more free in their elocution when reading by themselves; but such is not invariably the case. A young lady, at present (July, 1860) one of my pupils, is far more affected with the infirmity when alone than before company. The fear of rendering herself ridiculous acts, in her case, as a stimulant, strengthening the psychical element—the firm will to overcome the difficulty, and actually giving

her, for the time, more control over the disobedient organs.

4.—Stutterers cannot stutter voluntarily when told to do so.—I considered this alleged fact, mentioned by Dr. Warren, too curious to neglect verifying it. I am bound to say that in all cases I have yet tried there was not one in which the infirmity disappeared. The voluntary effort made by the patient simply effected, in most instances, an articulation different from his normal utterance, but no removal of the defect, which indeed generally only exists when the persons are trying to speak in their natural voice. Nearly all stutterers have no difficulty when they imitate any peculiar articulation; but this voluntary effort cannot be kept up, and it frequently happens that nervous stutterers are too timid to try such an expedient.

CHAPTER VI.

HISTORICAL REVIEW OF THE CHIEF THEORIES AND MODES OF TREATMENT,

Arranged in Chronological Order.

THE literature of defective articulation may conveniently be divided into two periods, viz.:—From the earliest records to Mercurialis (1584), and from Mercurialis to the present time.

First Period.

The earliest mention of defective utterance we find in the Scriptures.

"I am slow of speech and of a slow tongue." HEBREW.—Kebad peh kebad loshun anochi. GREEK, SEPT.—Ischnophonos kai bradyglossos ego eimi. LATIN, VULG.—Impeditioris et tardioris linguae sum. Exod. Chap. iv. 10.

"And the tongue of stammerers shall speak readily and plain." Hebrew.—Loshun elgim. Greek Sept.

Kai ai glossai ai psellizousai. LATIN, VULG.—Et lingua balborum." ISAIAH, Chap. xxxii. 4.

"And the string of his tongue was loosed, and he spake plain." St. Mark, Chap vii. 35.

Among the Pagan writers who allude to defects of the articulation may be mentioned Herodotus, Aristotle, Hippocrates, Plutarch, Galen, Celsus, &c.

The information we derive from the writings of the Greeks and Romans in relation to the physiology and pathology of dyslalia is very scanty, which is the more remarkable, as oratory then paved the way to the highest offices of the state.

The following extracts from the works of the ancients, arranged nearly in chronological order, contain some of the principal passages referring to the subject of disorders of the voice and speech. I have considered it advisable to place the Greek and Latin terms in juxtaposition, in order better to exhibit the meaning which the respective authors and translators, apparently attached to the expressions used. I may also here observe that in presenting the reader with a panoramic view of the principal theories and remedies proposed, I first intended to offer my comments on them separately in a collected form. On further consideration, it seemed

to me preferable to append my remarks to the respective views of the various authors quoted.

The term battarismos is, according to some, derived from Battos. Herodotus (484 B.C.) says that the Therean Battos, who had been a stutterer and a stammerer (ischnophonos kai traulos) from his youth, consulted the oracle at Delphi. The oracle said:

"Battos, thou comest on account of thy speech, but King Phœbus Apollo sends thee to Libya, in the land of sheep to dwell."

After having founded the colony Cyrene, he was, according to Pausanias (L. 10) cured by the unexpected sight of a lion. Herodotus also observes that *Battos* meant, in the African language, a king.

Aristotle (384 B.C.) says, "The tongue is either broad or narrow, or of a medium shape, which latter is the best for distinctness; or it is free or tied, as in those that stammer and stutter. Gr.—Tois psellois kai tois traulois. Lat.—Qualis blaesorum et balborum. Hist. An. Lib. 1, Cap. ii.

"An equable and broad tongue is also convenient for the formation of letters, and the purpose of speech; for, being such and free, it is eminently capable of being dilated and contracted in a variety of manners. This is evident in all such persons in which the tongue is not sufficiently free, for they stammer and stutter.

Gr. Psellinzontai gar kai traulizousi. Lat. blaesi
enim et balbi sunt.*

Problems,—Section XI.—Stammering (Gr. traulotes Lat. Blaesitas) therefore, is the inability of articulating a certain letter; quam libet; but stuttering (psellotes) is the omission of some letter or syllable; and hesitation (ischnophonia) is the inability of joining one syllable with another. All this arises from debility, for the tongue is not obedient to the will. Intoxicated persons, and old men, are similarly affected, but in a lesser degree. (Problem 30)."

Problem 38.—"Why are those who hesitate in speaking melancholy? (ischnophonoi. Lat. qui lingua haesitant). Is it because that to follow the imagination rapidly is to be melancholy? Such, however, is the case with those that hesitate in speech, for in them the impulse to speak precedes the power, in consequence of the mind rapidly following that which is presented to it. This is also the case with those that stammer, for in these the tongue is too slow to keep pace with the imagination."

Hippocrates (370 B.C.) Praecepta 6; Aphor. 6, 32; Epid. 2, 5; De Judicat 6.

"Persons who have impediments in their speech

^{*} De Part. An. Lib. 2, Cap. xvii.

(Gr.—ischnophoninen. Lat.—ex linguae haesitantes) are freed by varices; the impediment remains if no varices appear.

"Those who are tall, bald, stammer (trauloi) and hesitate in their speech (ischnophonoi)," are usually good. A stammerer, (traulos) bald, and hesitating in his speech, (ischnophonos) who has a hairy body, is subject to atrabilious diseases, as also those who repeat certain syllables, striking various times with their tongue, are not masters of their lips. Some suppuration must be effected if they are to acquire freedom of speech."

Chap. vi.—" Those who have a large head, small eyes, are, if they stammer, subject to anger."

"Stammerers (oi troiloi), and clutterers (tachyglossoi; linguae volubilitate), are much subject to bile.

"Who has a small head will neither be bald nor stammer, unless he has blue eyes."

Hippocrates also observes that the infirmity is partly owing to an affection of the ears, and partly that the speaker before delivering his words passes to other thoughts and expressions.

Epid. Sect. 3. further.—In gouty persons, tumours

* Some translate linguae haesitantes, others gracili voce, (a thin falsetto voice)

are observed under the tongue containing calculi, interfering with articulation."

As the prince of orators is constantly alluded to in relation to impediments of speech, it may not be out of place to give here the entire passage of Plutarch (A.D. 66), as referring to his infirmity.

"Demosthenes, in his first address to the people, was laughed at and interrupted by their clamour; for the violence of his manner threw him into a confusion of periods and a distortion of his arguments. He had, besides, a weakness and a stammering in his voice,* which caused such a distraction in his discourse that it was difficult for the audience to understand him. At last, on his quitting the assembly, Eunomos the Triasian, a man now extremely old, found him wandering in a dejected condition in the Piraeus, and took on to him to set him right. "You," said he, "have a manner of speaking much like Pericles, and yet you lose yourself out of mere timidity and cowardice. You neither bear up against the tumult of a popular audience, nor prepare your body by exercise for the labour of the rostrum."

^{*}Gr.—Kai phones astheneia, kai glottes asapheia, pneumatos kolobotes. Lat.—Laboravit vero etiam vocis exilitate, lingua inexplanata, spiritus augustia. Plut. Vit. parall.

Another time, we are told, when his speeches had been ill-received, he went home with his head covered, and in the greatest distress. Satyrus, the actor, who was an acquaintance, followed him. Demosthenes lamented that though he was the most painstaking of all the orators, yet could be find no favour with the people. "You speak truly," replied Satyrus, "but I will soon provide a remedy, if you will recite to me some speech in Euripides or Sophocles. When Demosthenes had finished, Satyrus repeated the same speech, with such propriety of action, and so much in character, that it seemed quite a different passage. Demosthenes now understood, how much grace and dignity of action adds to the best oration, that he thought it of small matter to compose and premeditate, if the pronunciation and propriety of gesture were not attended to. On this he built himself a subterraneous study, which remained in our times. Thither he repaired every day to form his action and exercise his voice; and he would stay there for two or three months together, shaving one side of his head, that the shame of appearing in that condition should keep him in. Demetrius, the Phalerian gives an account of the remedies he applied to his personal defects, and he says he had it from Demosthenes in his old age. The hesitation and

stammering he corrected by practising to speak with pebbles in his mouth, and he strengthened his voice by running or walking up hill, and pronouncing some passage in an oration or poem during the difficulty of breath which that caused. He had, moreover, a looking-glass in his room, before which he declaimed to adjust his motions.

Celsus* says, "When the tongue is paralysed, either from a vice of the organ, or the consequence of another disease, and when the patient cannot articulate, gargles should be administered, of a decoction of thyme, hysop, or pennyroyal; he should drink water, and the head, the neck, mouth, and the parts below the chin be well rubbed. The tongue should be rubbed with lazerwort, and he should chew pungent substances, such as mustard, garlick, onions, and make every effort to articulate. He must exercise himself to retain his breath, wash the head with cold water, eat horse-radish, and then vomit."

Galenus (died about 200 a.d.—De locis affectis, 6), appears to refer stammering to an intemperies humida. Intoxicated persons stammer, as the brain is too much moistened, and consequently the instruments which move the tongue, and the tongue itself. And again,

^{*} Celsus de Resolutione Linguae.

that ischnophonia, or stuttering, is owing to the debility of the muscles of the tongue from the diminution of heat.

It would thus appear that translators and commentators have been much perplexed as to the proper meaning of ischnophonia, psellismos, battarismos, traulismos, &c. According to the etymology of the term ischnophonia, (ischnos, weak, thin, and phone voice,) is merely a defect of the voice and not of articulation. Yet Aristotle expressly says that ischnophonia consists in the disability of properly joining syllables and words, i. e., stuttering. Again, Alcibiades is by Plutarch called traulotes, translated a lisper, but there is no evidence that he actually lisped; he had a defect in the enunciation of r. The word balbus of the Romans seems chiefly to have been applied to this defect, hence the surnames Balbus, Balbinus, Balbilius, &c., as some of the members of the family Sempronius, were named. Traulismos seems, therefore, to mean what is now understood by rhotacism. Psellismos appears to have conveyed the meaning of lisping. "Psellos," says Hesychius, (factum a sono-an onomatopoeia,) "is a person who cannot properly pronounce s—a lisper." Romans frequently called a lisper blacsus; blacsitas

would, therefore, properly mean lisping. Then, again, there are atypi, derived either from typoo, I express, and the prive a; or from typto, I strike; such persons cannot use the instrument of the tongue with sufficient expedition; and ancyglossi—tongue-tied, are those whose tongue is attached naturally by the frænum, or accidentally from indurated cicatrices, the result of places.

CHAPTER VII.

HISTORICAL REVIEW, ETC.—(Second Period.)

From Mercurialis to the present time.

The literature of Psellism may, strictly speaking, be said to date from the time of Mercurialis, who treats of defective utterance at considerable length in the second book of his work, De puerorum morbis. Ed. J. Groscesii, Francofurti, 1584.* According to the notions prevalent at his time, Mercurialis considers a moist and cold intemperament as the chief cause of balbuties, comprehending both stammering and stuttering. He, therefore, forbids washing the head of stammering children, as that increases the moisture, In order to desiccate the head, he advises cauteries and blisters on the neck and behind the ears, which should be kept open for a considerable time. To dry the

^{*} Hieronynus Mercurialis, born at Forli, 1530, and subsequently professor at Padua, Bologna, and Pisa, was the greatest physician of his time, and equally distinguished as a philosopher and antiquary. Emperor Maximilian II, whom he cured of a fever, created him a count, and the Paduaus erected a monument to his memory.

tongue, he recommends that it should be frequently rubbed with salt, honey, and specially with sage, which had proved singularly effective in curing the infirmity. The diet should be salty, spicy, and heating; no fish, no pastry, is to be allowed. Our author is, however, somewhat puzzled by finding that Hippocrates attributes stammering also to the dryness of the tongue. To reconcile this opinion with his own, Mercurialis is obliged to assume two species of balbuties—a natural and an acci-The natural is produced by humidity, the unnatural or accidental by dryness, and it is of this species that Hippocrates has spoken. Now when balbuties proceeds from dryness, as after fevers or inflammation of the brain, we should direct our attention to the moistening of the tongue and the top of the spinal cord. Gargles with woman's milk are advisable; the tongue must be frequently moistened with a decoction of marsh-mallow, to which sweet oil of almonds may be added, or some nympheæ leaves, by which the effect will be greater. The spinal cord, especially the cervical region, should be acted on by convenient liniments, apt to soften these Besides, the intemperies humida et frigida, impediments in speech are also produced by emotions, deep cogitations, prolonged watchfulness, sexual excesses, habitual intoxication, which by injuring the brain and the nerves, produce balbuties,

But, though a physician, Mercurialis does not seem to rely on his drugs and diet, for he expressly says: the body and the voice must be exercised as much as possible, and if there be anything which may benefit stammerers and stutterers, it is continued loud and distinct speaking. He supports this opinion by the example of Demosthenes.*

The following extract derives its chief interest from the celebrity of the author, of whom it can be truly said, nil erat quod non tetigit:—

- "Experiment, solitary, touching Stutting, (Sylva Sylvarum, or Natural History. First published 1627,) Cent. iv. Sec. 386. By Lord Bacon.
- "Divers, we see do stut. The cause may be, in most the refrigeration of the tongue; whereby it is less apt to move. And, therefore, we see that naturals do generally stut: and we see that in those that stut, if they drink wine moderately, they stut less, because it heateth; and so we see, that they stut more in the first
- * Exercendum est corpus quantum fieri potest, praesertim vero exercenda est vox; et si quid est, quod possit prodesse balbis et haesitantibus est continua locutio alta et clara. Demosthenes superavit balbutiem sola vocis exercitatione et contentione, nam dedid decem millia drachmorum Neoptolemo Histrioni, qui illum docuit versus plures uno spiritu proferre seilicit ut injectis in os calculis ascendens et currens versus continuo proferret.

offer to speak than in continuance; because the tongue is by motion somewhat heated. In some, also, it may be, though rarely, the dryness of the tongue, which likewise maketh it less apt to move as well as cold; for it is an affect that cometh to some wise and great men; as it did unto Moses, who was linguae praepeditae, and many stutters, we find, are very choleric men; choler inducing dryness in the tongue."

Johann Conrad Amman, of Haarlem, to whose works* most subsequent writers are much indebted with regard to a correct theory of the formation of voice and articulate sounds, did not confine his practice solely to the education of deaf-mutes, but extended it to remedy all kinds of defective utterance. Vicious articulation, he conceived, was in some cases owing to organic defect in some portion of the vocal and articulating apparatus, or to debility. The tongue, for instance, is sometimes so large that it fills nearly the whole buccal cavity, and materially interferes with the enunciation of many sounds. "I had," he says, "a Danish gentleman under my care, who, on account of the size of his tongue, articulated badly, and could by no effort of his own pronounce ka, but always said ta. Whilst placing

^{*} Surdus loquens, &c. Amst. 1692. Dissertatio de loquela, &c. Amst. 1790.

my two fingers firmly on this organ, I desired him to enunciate ka. I well perceived that he tried to say ta, but as he could not approach the tongue to the teeth he was forced to enunciate ka to the admiration of the bystanders." The tongue may also be deficient in mobility, owing to its being fixed by the fraenum, or the latter may be absent, in which case, the tongue lies at the bottom of the cavity. The uvula may be too voluminous, too small, or altogether wanting. The palate, the lips, the teeth, may also be in fault.

Amman distinguishes two species of stammering The first he calls Hottentotism, which consists in modifying the sounds in such a manner that they become unintelligible. He quotes the case of a young lady of Haarlem, who could scarcely pronounce any letter but t, and whose utterance was of course a ridiculous farrago of an interminable repetition of that sound. Amman cured this young lady within a space of three months, so that not a vestige of her defect remained, and her elocution became perfect. The second kind, Amman terms Haesitantia, consisting in a laborious repetition of the explosive sounds. During the efforts to produce them, the patient is frequently much agita ted, the countenance becomes livid, and the features To remedy this defect, he advises loud contorted.

reading, committing to memory short pieces, and to repeat them before a friend slowly and deliberately. He further recommends exercising the articulating organs in the enunciation of the explosive sounds in various combinations, as in the syllables—tak, tek, tik; pack, pek, pik, pit, knyt, tuyt, &c. These kinds of defective utterance, he further observes, are not the result of organic defects, but originate in the contraction of a vicious habit, which in time becomes inveterate.

Want of space precludes the possibility of quoting from the works of any other author of this time. An enumeration of the principal treatises on the subject of defective utterance must therefore suffice.

G. Schacher. de Loquela. Lipsiae, 1696; Küstner de lingua sana et aegra. Altdorf, 1716; Fick de balbis. Jenae, 1725; Bergen de balbutientibus Francf, 1756; Reil de Vocis et Loquelae vitiis, &c.

Sauvages (Nosologia Methodica, Amst. 1768,) places stammering among dyscinesiae, (dys, difficult,—kineo, I move,) diseases of which the chief symptom consists in debility. Cullen, (synop. nos. med.) and many subsequent authors have adopted the same opinion.

Joseph, Frank* distinguishes dysphoniae-affections

^{*} Praxeos Medicae Universae Praecepta. Chap. ii. "De vitiis vocis et loquelae."

of the voice, which may be symptomatic or primary, traumatic, catarrhal, &c., and dyslaliae-defects of the articulation. As regards the causes of stuttering, he enumerates, (following Mercurialis,) bad education, depraved habit, cerebral affections, sexual excesses, &c In respect to the prognosis, he observes, that stuttering seems to diminish, and frequently ceases with advancing age, but when inveterate it is an incurable evil. Dr. Frank seems in favour of a severe discipline in the treatment of stuttering, for he strongly recommends a good flogging,—a mode of cure with which, for reasons stated in the sequel, I certainly cannot agree.

The modern literature of Psellism may be said to have commenced with Itard,* who seems in many respects to have entertained correct notions on the subject, and to have anticipated some of the appliances adopted by subsequent practitioners, as will appear from the following passages.—

ITARD, says:—"Some modern anatomical writers instead of throwing a new light upon the subject, have rather withdrawn our attention from the real seat of the affection, as they considered stuttering as the consequence of organic defects. The phenomena which

^{*} Journal Universel des Sciences Medicals. Paris, 1817.

stuttering exhibits, make us suspect a spasmodic or tremulous action, and a debility of the muscles moving the tongue and the larynx. I have no doubt the affection is curable. The remedies must necessarily be adapted to the degree and duration of the disorder. It is not sufficient to make the pupil acquainted with the mechanism of articulation, and to repeat frequently the individual sounds, but they must be studied in all possible combinations. Some syllables are more easily pronounced, when preceded by one which places the tongue into a position favourable for its production; whilst the enunciation of them will be more difficult if they follow a syllable not affording this advantage. A good deal also depends on the vowel with which the consonant is combined, thus stutterers find less difficulty in articulating co than ca.

"When stuttering increases and extends to a great number of individual sounds and syllables, it will be necessary by mechanical means to strengthen the organs of articulation, and to lessen their spasmodic tendency. We must treat the muscles of the vocal and articulating organs like those of locomotion, and as dancing and fencing will render the latter more firm and flexible, so must the tongue and the lips be subjected to analogous exercises. I avail myself for this purpose

of a small apparatus, which I place under the tongue.* The instrument is scarcely introduced, when we hear a confused, indistinct voice, but no stuttering. The most difficult syllables are articulated with some trouble, but they are not repeated. We must, however, not deprive the tongue of this mechanical support at too early a period, otherwise the defect will re-appear. The apparatus should be used for a very considerable time, and when, at meals and during the night, it is removed, the patient must strictly abstain from speaking. I cannot exactly say how long it should be worn, having only effected two cures by its agency. The first case was that of a young man, æt., twenty, who used the instrument for about eighteen months. The perseverance of the patient to subject himself to such an inconvenience for so long a period, was powerfully supported by the hope of meeting, after the removal of his infirmity, with a more favourable reception from a young lady to whom he was greatly attached. The cure was complete; but I have not been informed whether he met in another quarter with the success he so amply merited. The second case was that of a boy

^{*} The instrument consists of a gold or ivory fork placed in the concave centre of a short stalk, and applied by its convex surface to the cavity of the alveolar arch of the lower jaw.

act., eleven, who wore the apparatus very reluctantly, and removed it whenever he could do so unobserved. I saw him much improved after he had used it for eight months, and I have reason to believe, though I lost sight of him, that he ultimately recovered."

Remarks.

ITARD very justly denies stuttering as being the consequence of organic lesions. The main defect of his theory and practice consists in having placed the cause of the evil too exclusively in the articulating organs. It is, therefore, not surprising that even by his own account, he only succeeded by means of his instrument in effecting two cures after a lapse of eighteen months in the first, and of eight months in the second case; and did not even know whether the latter had been permanent.

Deleau* distinguishes three kinds of stuttering: the first is produced by disordered motions of the tongue, which he calls lingual or loquax; the second includes those stutterers who exhibit contortions in the muscles of the mouth and the face, which he terms labial or difforme; the third, comprising those stutterers who

^{*} Acad. des Sciences, 1828.

cannot properly produce any sound; this is termed douloureux or muet.

As causes he assumes—1. A vicious enunciation contracted in infancy. 2. Produced by an organic lesion. 3. A weak will and an insufficient supply of nervous influence to direct the organs. In some respects his theory is just the reverse of that of Rullier.

M. Serres* considers stuttering a nervous affection, presenting two well marked aspects. The first resembles chorea of the muscles which modify the sounds; in the second there obtains a tetanic rigidity of the muscles of phonation and respiration. In the first, the will loses the power of influencing the rapid motions of the lips and tongue; in the second the respiration is obstructed. To cure a slight stutter, it is sufficient to pronounce briskly every syllable; for courage you must pronounce rapidly cou-ra-ge. When the stuttering is severe, this simple kind of gymnastics is in sufficient; the arms must join in the movements. You must shake the stutterer by the arms at every syllable, or he may do it himself, and he will be surprised at the facility which these motions will give him.

^{*} Memorial des Hopitaux du Midi, anneé, 1829.

Remark.

Unfortunately, from the author's experience, the remedy proposed has frequently the opposite effect. It succeeds at first, but when the novelty is gone, the stuttering is generally worse.

Dr. Rullier* ranges himself among those authors who place the immediate cause of stuttering in the brain. He remarks that the cerebral irradiation which follows thought, and puts the vocal and articulating organs in action gushes forth so impetuously and rapidly, that it outruns the degree of mobility possessed by the muscles concerned, which are thus, as it were, left behind.

Hence the latter are thrown into that convulsive and spasmodic state which characterises stuttering.

To substantiate this defective relation between the exuberance of thought, the celerity of cerebral irradiation and the corresponding organic motions, he observes, that the great majority of stutterers are distinguished by the vivacity of their understanding and the petulance of their character; but when advancing age clips the wings of the imagination, and ripens their judgment, stuttering diminishes as the action of their organs is now in equilibrium with cerebral irradiation.

^{*} Dict. de Scien, Med. Brux, 1828.

As an auxiliary in curing stuttering, Rullier recommends the burning of moxa on the integuments covering the larynx and the hyoid bone.

Remarks.

Rullier's theory connecting stuttering with an exuberant imagination is certainly not new, having, as the reader may find already been advanced by Aristotle. The connexion between thought and speech is no doubt an interesting subject of inquiry. In plain, distinct speech, good speakers do not utter more than three syllables in a second, but in rapid delivery, as many as eight or nine syllables may be utttered within that time. Yet it seems certain that a long train of thought may run through the mind during the time it takes to articulate a single word. The anxious endeavours to express these thoughts may certainly interfere with articulation in two ways. If there be no command of words, it will produce hesitation, just as its opposite a want of matter; but I doubt much whether it can ever be the cause of actual stuttering. The assigned reason that stuttering diminishes with advancing age in consequence of the wings of the imagination being clipred appears to me very imaginary.

Dr. H. M'CORMAC published in 1828 a treatise on the cure of stammering, which he prefaces in these terms:—

"That the following work will communicate, without the possibility of a failure, to the reader, whether medical or otherwise, the means of curing habitual stoppage of speech, may appear at first sight, a little paradoxical, when we consider that thousands of years have elapsed without any individual having ever been able to discover and communicate to the world any means by which the distressing affliction could be alleviated. But any scepticism that may exist on the subject will quickly vanish, when the stutterer, once in possession of the means, shall essay them on himself, and find that without trouble or difficulty, he may learn to speak with the same facility as other men.

"The peasant and the artisan will equally receive the benefit of this communication; and that which for many centuries wealth could not purchase, will now be placed within the compass of even the most abject poverty." And again, "The means I have provided are so easy of execution, and so abundantly efficient, that were it not for the sake of saving trouble, it would be of little consequence whether the children contracted it or not."

It appears that, being in 1826, in the City of New York, Dr. M'Cormac was given to understand that a Mrs. Leigh of that city was very successful in the removal of impediments of speech. As he could obtain no information of the method employed, he considered that what another had done, he might possibly do likewise. "No medical work," say Dr. M'Cormac, so far as I knew, or now know, contained the least satisfactory information on the subject, and all the means which I had ever heard proposed or read of, were equally ineffectual and useless. This ignorance I considered, and truly, as an opprobrium medicorum, -a disgrace to the science of medicine and its professors, and I earnestly desired to become the instrument of removing it."

Dr. M'Cormac now employed much of his time in pondering on this subject until he arrived at the acme of his desires; for it suddenly occurred to him that the sole and proximate cause of stuttering was an attempt to speak when the lungs are in a state of collapse, or nearly so.

"In this," says the doctor, "consists the discovery hitherto made by none. The patient endeavours to speak when the lungs are empty, and cannot. We can utter a voice without speech or words, but not the latter without the former."

The cause from which all impediments of speech arise, being apparently so simple, the remedy proposed is equally easy, for he says: "The main thing to be attended to, and which, in fact, is the ground-work of the whole system of cure, is to expire the breath strongly each time, when attempting to speak, the lungs being previously filled to the utmost, or, in other words, to reverse the habit of stuttering, which is, that of trying to speak without expiring any air."

Remarks.

Dissenting from Dr. McCormac's assumption that stutterers invariably try to speak with empty lungs, the remedy which he proposes, viz., to fill the lungs to the utmost extent, and to expel the words with force is inapplicable. In some few cases, where the voice is in fault, the patient may be benefited; but in most instances, the practice recommended is more likely to aggravate the impediment than to remedy it. The regulation of the breath is no doubt of the utmost importance in all cases; but it must not be effected in the way indicated by Dr. McCormac.

The error into which this author has fallen must be partly attributed to the false premise from which he started, namely, that the voice is indispensable to articulation. "We can," he observes, "utter a voice without words, but not the latter without the former." The stutterer should, therefore, cause his vocal cords to vibrate, and that he can only effect by forcible expiration. Now, it is well known that in whispering we articulate perfectly, without producing any voice. A person whose vocal cords are obliterated from disease may still be able to whisper out his thoughts; the voice is gone, but the articulation remains." The vocal cords being unconcerned, the tone can, in whispering, be neither raised or lowered, as in normal speech, when both, the vocal and articulating organs are in action.

HERVEZ DE CHEGOUIN,† says "Stammerers have hitherto, convinced of their incurability, resigned themselves to their fate. Uncertain as to the cause, traditional remedies were resorted to. We were tolder of Demosthenes and his pebbles; but, by some fatality, pebbles don't cure stuttering now-a-days. We were then recommended to articulate slowly; and in point of fact, stammering is then less sensible. But the

^{*} See Philosophy of Voice and Speech.

[†] Recherches sur les Cruses du Begaiement. Paxie, 1830.

reason why, was not known. In placing myself before a looking-glass and pronouncing each syllable separately, I did not stutter; but when I endeavoured to join several syllables, which required a change of form and position of the articulating organs, I had the same difficulty."

"The cause of stuttering consists either in the shortness of the tongue or the vicious disposition of the frænum, which fixes it to the inferior part of the mouth, and thus restricts its motions. It is true that the frænum may be short or long in persons who articulate well, but in comparing the tongue of a stutterer with that of another individual, it will be found that the frænum of the former extends more to the top of the tongue, or that it is harder and thicker, and also that the tongue is shorter, so that to raise it towards the pharynx though not impossible, is yet very difficult. If I, then, find that the cause has its seat in the frænum, I divide it, and if the tongue be too short, I double the dental arches by inserting within a silver arch, by which they are brought nearer to the tongue." This instrument Mr. Hervez calls cintre.

Remarks.

The abnormal condition of the tongue may, indeed

produce stammering, but never actual stuttering. Mr. Hervez's cintre may be useful in cases when a portion of the tongue has been lost from disease. A congenital shortness of the tongue is not often met with, nor does it, when existing, cause stuttering. Neither will the division of the frænum cure stuttering; and I have had under my care many pupils whose affection dates from an unskilful and unnecessary operation of that kind.

Dr. Arnott's Theory and Remedy.*—"The most common case of stuttering, however, is not, as has been universally believed, where the individual has a difficulty in respect to some particular letter or articulation, by the disobedience to the will or power of association of the parts of the mouth which should form it; but where the spasmodic interruption occurs altogether behind or beyond the mouth, viz., in the glottis, so as to affect all the articulations."

Starting from the principle that the closure of the glottis is the chief cause of stuttering, it follows that a stutterer is instantly cured, if, by having his attention directed to it, he can keep it open. In order to effect this, Dr. Arnott advises to begin pronouncing or droning any simple sound, as the e of the English word, berry,

^{*} Elements of Physics, &c. G. Niel Arnott, M.D.

whereby the glottis is opened, and the pronunciation of the following sounds is rendered easy. The words should be joined together, as if each phrase formed but one long word, nearly as they are joined in singing; if this be done, the voice never stops, the glottis never closes, and there is, of course, no stutter. With regard to the strangeness of such a mode of enunciation, Dr. Arnott observes: "There are many persons not accounted peculiar in their speech, who, in seeking words to express themselves, often rest long between them, on the simple sound of e mentioned above, saying, for instance, hesitatingly, 'e I e.....think e.....you may,"—the sound never ceasing until the end of the phrase, however long the person may require to pronounce it.

PROFESOR MÜLLER* agrees with Dr. Arnott, in considering the immediate cause of stammering to be a spasmodic affection of the glottis, and that the cure must, therefore, be effected by conquering this morbid tendency to closure by voluntarily keeping it open. For this purpose, Dr. Arnott advises that the patient should connect all his words by an intonation of the voice, continued between the different words, as is done by persons who speak with hesitation. "This plan," observes Müller, "may afford some benefit, but cannot

^{*} Elements of Physiology, translated by W. Baly, M.D., 1857

do everything, since the main impediment occurs in the middle of words." He, therefore, advises, in addition to Dr. Arnott's plan, the following procedure: "The patient should practise himself in reading sentences in which all letters, which cannot be pronounced with a vocal sound, namely, the explosives, should be omitted, and only those consonants included which are susceptible of an accompanying intonation, and that the sound should be much prolonged. By this method, a mode of enunciation would be attained, in which the glottis is never closed, owing to the articulation being combined with vocalisation. When the stammerer has long practised himself in this manner, he may proceed to the explosive sounds. In such a plan of treatment, the patient himself would perceive the principle, while the ordinary method-that of Madame Leigh-is mere groping in the dark, neither teacher nor pupil knowing the principles of the method pursued."

Remarks.

THE so called spasmodic closure of the glottis, considered by Drs. Arnott and Müller, and their followers, as the chief cause of stuttering is, I am convinced, not a cause, but an effect, produced by the misemployment of

the respiratory and vocal organs—in short, by the application of inadequate means to surmount the difficulty. If the contraction of the glottis were spasmodic, in the proper sense of the term, the patient would scarcely have the power, which he undoubtedly possesses, even in the severest form, to arrest it instantly by silence.

Again, stuttering does not, as frequently asserted, occur only at the explosive sounds, hence, the omission of these letters in the exercises, as recommended by Müller, will not always stop the paroxysm.

Those who make use of the trick of an intervening e sound for the purpose of keeping the glottis open, must be reminded that, in order to derive any benefit from the artifice, the next sound must closely follow, otherwise the glottis will again contract. That such a mode of drawling enunciation attracts, comparatively, little notice, is a proposition to which I cannot subscribe. In some cases, it is, perhaps, more disagreeable to the listener than the original defect. In justice to Dr. Arnott, it may be observed, that he expressly states, that though the simple sound, the e of berry, is a means of keeping the glottis open, there are many other cases in which other means are more suitable, as the intelligent preceptor soon discovers.

Dr. Schulthess* distinguishes idiopathic, symptomatic, and sympathetic stuttering. The first depends upon disharmony between innervation and the action of the vocal and articulating organs. Stuttering, the result of imitation, is idiopathic.

Stuttering is sympathetic, if the disorder of the larynx is consensual, owing to an affection of the brain, or the abdominal viscera.

Symptomatic stuttering generally disappears with the affection, of which it is the symptom.

In symptomatic stuttering we must combat the affection of which it is a symptom. When stuttering is sympathetic, the treatment must be directed to the primary evil which produced it, and which has chiefly its seat in the abdomen and the brain. But though stuttering may originally be a secondary symptom, it may, by long continuance, become idiopathic; we must, then, after having removed the original cause, direct our attention to the spasmodic affection of the larynx, which may still remain. In idiopathic stuttering, we must internally and externally try such remedies which directly or indirectly act upon the vascular, vegetative, and nervous system generally; but especially upon the vocal and sympathetic nerves—remedies

^{*} Das Stammeln und Stottern, Zurich, 1830.

which have proved beneficial in other convulsive diseases, such as epilepsy, chorea, hooping cough, &c.

Among external applications, antispasmodics, resolvent embrocations on the throat, and the vicinity of the larynx may be useful. Derivatives, setons, blisters, either on the throat, behind the ears, the neck, the chest, the pit of the stomach, or at distant regions, have, at times, produced good effects. "Thus," he says, "a stutterer was much relieved after applying to the chest the antimonial ointment."

Though agreeing with Dr. Arnott as to the spasmodic state of the glottis, he doubts whether the enunciation of a simple vowel sound will much relieve the stutterer. Dr. Schulthess concludes his work by expressing a wish that some person would take the trouble of embodying, in a single volume, all the methods which have occasionally succeeded, so that the practitioner might have his choice of remedies in case of failure.

Remarks.

Dr. Schulthess's work is, in many respects, a very meritorious performance. He does not, however, appear to have enjoyed much opportunity for practice. Hence, his views are theoretical, and his fault consists in

having treated the subject chiefly from a medical point of view. Though fully admitting the paramount importance of a psychical treatment, which, as he observes, has been successfully employed when medical treatment only aggravated the disorder, he still considered stuttering, in most cases, a disease or symptomatic of a corporeal affection—an opinion which is daily losing ground, and which I cannot at all agree in.

SIR CHARLES BELL* attributes to the pharynx a much greater share in articulation than is generally allowed. He considers that this smaller cavity is substituted for the larger cavity of the chest, to the great relief of the speaker, and the incalculable saving of muscular exertion.

Both the musical notes in singing, and the vowels in speech are affected by the form and dimensions of the pharynx, and it is during the distention of the bag of the pharynx that the breath ascends and produces the sound which proceeds and gives the character to the explosive letters, and the pharynx, after being distended, contracts, and forces open the lips.

He further observes that, with each motion of the tongue or lips, there is a correspondence in the action of the velum and pharynx, so that the compression o

Philosophical Transactions, 1832.

the thorax, the adjustment of the larynx and glottis, the motions of the tongue and lips, and his actions of the pharynx and palate must all consent before a word is uttered.

Applying this to impediments of speech, Sir Charles remarks that, "in a person who stutters, the imperfection is obviously in the power of intonation, and not in defect of a single part. The stutterer can sing without hesitation or spasm, because in singing, the adjustment of the glottis and the propulsion of the breath by the elevated chest, are accomplished and continue uninterruptedly, neither does he experience any distress in pronouncing the vowels and liquid consonants. For the same reason, and if he study to commence his speech with a vowel sound, he can generally add to the vibration, already begun, the proper action of the pharynx. Another necessary combination distresses the stutterer, namely, the action of the expiratory muscles, and those of the throat. He expels the breath so much in his attempts at utterance, that, to produce a sound at all, the ribs must be forcibly compressed. To remove this necessity, if he be made to fill his lungs and elevate the shoulders, the elasticity of the compages of the chest will come into play, so as to expel the breath without effort, and he will speak with comparative facility and comfort. Accordingly, to commence speaking with the chest fully inflated, to pitch the voice properly, to keep measured time in speaking, and to raise the voice on a liquid letter or vowel, are some of the common means recommended for the cure of it; and they are certainly those which tend to overcome the difficulty in combining the organs of speech when the defect arises from no disorder or malformation of the organs of speaking."

Remarks.

It will be perceived that our distinguished physiologist considers stuttering not as a disease, but chiefly as the result of disordered respiration. He, therefore, lays down no specific plan, but recommends the common means which, by regulating the respiratory acts, may tend to overcome the difficulty of the stutterer in combining the action of the organs of speech.

Dr. Voisin* being afflicted with an impediment in his speech, left no method untried, from the pebbles of Demosthenes to the method of Mrs. Leigh and Malbouche, for the purpose of removing it. Chance first led him to the discovery of the method he recommends. He

^{*} Bulletin de l'Acad. Roy. de Med. 1837.

was reading a paper before a society, and wishing to do so with energy, he happened to look in a mirror which was opposite him, and perceived that he rested the border of his right hand upon his chin, in a manner so as to depress the inferior maxilla and hold the mouth half open. The idea immediately suggested itself that this instinctive and mechanical movement might contribute to his reading more promptly and easily. In fact, upon ceasing the pressure the difficulty of expression was quickly reproduced; but upon replacing his hand the freeness of the articulation immediately returned. Endeavouring to give an account of this, he observes: first, that the mouth was kept half open, the distance between the teeth being a line and a half. Second, that the tongue, abandoned to itself, in the state of repose, placed itself against the inferior dental border, whilst during pronunciation it is projected forwards and upwards, but is withdrawn almost immediately behind the alveolar arch. Third, that a medium pressure is necessary upon the chin; this should be sufficiently strong to resist the muscles which move the inferior maxilla, without impeding its movement of elevation, so strong as to prevent perfect approximation. To produce this pressure, and at the same me make it excusable, it is necessary to use a certain delicate art, so that the manœuvre may not appear forced, but on the contrary, almost natural. This pressure should be made with the external border of the right or left hand indiscriminately, the thumb applied to the chin, and the fingers free. He has observed the same in other individuals afflicted with impediment.

Remarks.

THERE are few cases in which any benefit will be derived from the artifice recommended. It is at best but a palliative not reaching the cause of the evil; nor was Dr. Voisin cured by it. The pressure upon the chin during enunciation may, in some instances, give temporary relief; and as beards are now all the fashion, it may be effected by holding the hirsute appendage, and drawing down the lower jaw without exciting too much attention.

Dr. Marshall Hall, in his Diseases of the Nervous System, 1841, says: "In Stammering the act of volition is rendered imperfect by an action independent and subversive of the will and of true spinal origin. In some instances, an act of inspiration is excited at the same time, which is equally involuntary; but in

general, there is a violent effort of expiration, and, in the worst cases, the disease is of an almost convulsive character. Stammering, as a disease, is sometimes induced by a morbid condition of the intestines, acting through the incident nerves. Dr. Bostock has recorded such a case in the Medical Chirurgical Transactions, vol. xvi, p. 72; it was cured by purgative medicines."

"In all cases this affection is aggravated by indisposition, and by emotion or agitation. It is best remedied when not hereditary or inveterate, by attention to the general health, and especially by purgative and tonic medicines, and by acquiring a habit of self-possession, and of speaking in a subdued, continuous tone, first dilating the thorax.

"Stammering is very like a partial chorea; it is not I think, as Dr. Arnott supposes, an affection of the glottis or larynx, that is of the organ of the voice, but of some of the different parts which constitute the machinery of articulation.

"If the recent observations of Mr. Yearsley prove correct, that stammering is to be cured by excision of the uvula and tonsils, a new ray of light will be thrown on this singular malady. Is the uvula the excitor-regulator of articulation? Is it, in cases of

stammering, unduly excitable? Every voluntary act combines with itself an excitomotory action. The contact of an object with the palm of the hand, the sole of the foot, induces an additional muscular contraction beyond that of the original stimulus of volition. Articulation may be regulated in the same manner. A reflex arc between the mouth and the organs of articulation would not be more marvellous than many others. How extraordinary, for example, is the act of vomiting induced by irritation of the fauces! How singular that substances passing the fauces in deglutition do not produce the same effect. How do the incident excitor nerves of vomiting escape? I may further ask, what is the state and position of the uvula in articulation? The velum, and with it the uvula, are elevated and placed so as to close the posterior nares, whenever certain letters are pronounced. Are incident nerves regulators of articulation excited in this case? And are they unduly excited in stammering? And is stammering not only an undue spinal action (as I stated many years ago), but an undue reflex spinal action? These interesting questions, time and long investigation alone can determine. Further, can the uvula and adjacent parts be implicated in chorea?"

In the Journal of the Royal Institution, for 1841,

Dr. M. Hall, further very justly observes: "All results prove that the larynx is not closed in stammering, and, indeed, that its closure and stammering are totally incompatible with each other. Where articulation is interrupted, it is by the co-operation of a part anterior to the larynx; it is, in a word, not an interruption of the organ of voice, but of speech."

Dr. Lichtinger in a series of papers on stuttering (Med. Zeitung, 1844), distinguishes those cases which depend on an affection of the nervous system from such which result from malformation of the organs of speech. Following Dr. Marshall Hall, he further distinguishes cerebral and spinal stuttering. In the former, affections of the brain interfere with the efforts of the will, so that spinal activity preponderates unregulated. On the other hand, spinal stuttering must be referred to that portion of the cord which is situate between the origin of the fifth and seventh and those respiratory nerves that supply the chest and belly. This may be either central when the cause exists in the tract mentioned, or eccentric when the cause is scated in some of the reflex nerves.

American Theory and Method.*

The method said to have been invented in 1825, by Mrs. Leigh, an English woman residing at New York, created great sensation both in America and Europe. Magendie, in his report to the French Academy (March 11, 1828), gives the following account of this lady:—Mrs. Leigh, residing at New York, having become a widow when about thirty-six years old, was received in the house of Dr. Yates, one of whose daughters, about eighteen years of age, laboured under a severe impediment of speech. In return for the great kindness with which she was treated, Mrs. Leigh determined to free the young lady from her impediment.

Deriving no information from any English work treating of the subject, she tried a number of remedies, until she arrived at her "infallible" method. Considering that the pressure of the tongue against the inferior incisors was the sole cause of stuttering, the great point of her system consisted in inducing the patient, during enunciation, to alter the position of

^{*} Although in chronological order, this theory ought to have been inserted before, it was deemed advisable to produce it here in connection with its chief propagator in Europe, Mr. Malebouche.

that organ by placing it to the top of the palate, by which means, it is said, she succeeded in curing Miss Yates of her infirmity.

Dr. Warren of Boston, however, insists that the above great discovery was not made by Mrs. Leigh at all, but by Dr. Yates, the father of the young lady; and that he merely consented that the system should pass under her name, from fear of being considered an empiric.

Dr. Zitterland, on the other hand, in a pamphlet published in 1828, at Aix la Chapelle, says, that Mrs. Leigh's husband had been a stutterer, and that the discovery was the result of nine years constant obser-Others assert, that Mr. Broster had practised vation. the same method before Mrs. Leigh, and that it was from England that the system was transplanted to America. Be this as it may, certain it is that Mr. Malebouche, a Frenchman, bought the secret for a round sum of Mrs. Leigh, and introduced it, in 1827, into the Netherlands and Germany. Both the Netherland and Prussian Governments considered the subject of sufficient importance, to grant to those who were in possession of the secret considerable privileges, and to appoint them professors at public establishments.

Mrs. Leigh's system was shortly afterwards intro-

duced into France by Mr. F. Malebouche, a brother of the gentleman who purchased the secret from Mrs. Leigh. As Mr. F. Malebouche, in the course of his practice, found the method, in many cases, inefficient, he set about perfecting it, and presented to the French Academy of Science, in 1841, a memoir containing his improved system of treating defective utterance.

In this memoir, Mr. Malebouche reproaches the American method that it is not applicable to all species of stuttering, and that the cures effected by it were not lasting. He had, therefore, remedied its shortcomings, and discovered a more perfect method of cure. His starting point is directly to oppose the curative remedies to the vicious action of the organs of speech; as he does not think that respiration has much to do with the production of stuttering, he deems it unnecessary to occupy himself with this fundamental element of speech, which, he assumes, becomes regularised in its actions in proportion as stuttering diminishes. The lips form a special object of Mr. Malebouche's treatment. With regard to the tongue, Mr. Malebouche recommends that not merely the tip, but the whole organ should be raised and applied to the palate, retracting it as much as possible. manner, the stutterer begins to perceive the motions

necessary for pronunciation; he must be made, while the tongue is thus glued to the palate, to pronounce all kinds of syllables and words, which he succeeds in effecting after a longer or a shorter time, according to the intelligence of the pupil, or the degree of flexibility of his organs. The pronunciation, no doubt, is much altered—it is thick, clammy; but experience has proved that this defect disappears in proportion as the pupil becomes master of his movements. The teacher should not yield to the desire of the stutterer to be soon relieved from this mode of enunciation; it must be continued for a considerable time, until the pupil can, with the tongue placed in the indicated position, enunciate distinctly. It is important, nay indispensable, that during the time of the treatment, the subject should, excepting during the hours devoted to the exercises, keep perfect silence. The invariable, intallible rule is this—to articulate as distinctly as possible, with the least possible detachment of the tongue from the palate. The more the pupil succeeds in articulating clearly, while the tongue is retracted, the more perfect is the cure.

Remarks.

The chief point insisted on by Mrs. Leigh, that

in stuttering the tongue is fixed to the inferior incisors, is not true. It is also evident that as neither Mrs. Leigh or Malebouche attach any importance to defective vocalisation and the respiratory functions, some of the most essential elements in the causation of stuttering remain unnoticed, and the method is, consequently, one sided and ineffective.

Colombat* assumes two species of stuttering, each having several subdivisions.

- 1. Bégaiement labio-choreique, so termed on account of its analogy with chorea, or St. Vitus's Dance. It consists of spasmodic motions of the lips and tongue, and other moveable organs, and conduces to the frequent repetitions of the labial sounds.
- 2. Bégaiement gutturo-tetanic, consisting mainly in a rigidity of the respiratory muscles, and those of the larynx and pharynx, and manifesting itself by a sudden stoppage of the breath, owing to the contraction of the glottis, and, consequently, affecting the emission of sound. The guttural sounds g, k, q, are chiefly influenced in this species.

Those labouring under the first named defect, are usually persons of a lively disposition, whilst those

^{*} Traité de tous les vices de la parole et en particulier du Bégaiement, &c. Paris 1840.

subject to the second species, articulate slowly, and make considerable efforts to produce the disobedient sounds. Colombat followed the opinion of his predecessors, in assuming as the proximate cause of stuttering, the want of harmony between the nervous influence and the muscles distributed to the organs of speech. He, therefore, devised a series of orthophonic exercises, in order to restore the harmony between nervous action and the organs of articulation; the most effective agent in these exercises being the application of rhythm in speaking.

The orthophonic gymnastics have the advantage of acting physically and morally; they act physically upon all the respiratory muscles; upon the lungs, the larynx, and specially upon the glottis, the tongue, and the lips. The respiration effected in the mode indicated has for its object, to relieve the spasmodic constriction of the vocal cords by opening the glottis, while, at the same time, the chest is expanded by a large quantity of air which escapes slowly by an expiration which should be gradual, and only sufficient to produce the sound.

By placing the finger upon the *pomum Adami* every one can convince himself, that on raising the tongue and turning the tip towards the pharynx, the larynx

descends, and the glottis enlarges, whilst in stuttering, the larynx is usually raised, by which the glottis is constricted. The position of the tongue, as above, renders it almost impossible to stutter upon the guttural, dental and palatal letters, whilst the infirmity is soon exhibited when it is depressed. The transversal tension of the lips, as indicated, tends to relieve that species of convulsive tremor which obtains in articulating the labials when the lips form a sort of curvilinear sphincter. As different causes never produce the same effects, it is easy to conceive that the disagreeable repetitions cannot take place if the mechanism, which produces them, is altered in an opposite direction. There is also a condition upon which he insists, that the patient should, for at least a fortnight, not speak with any body else, or only with such individuals who are under treatment for the same infirmity, otherwise the precepts are soon forgotten, and the influence of the method is only ephemeral.

"After what has been stated," says Colombat, "it is evident that rhythm is one of the chief phases of my method"

Remarks.

Although Mr. Colombat obtained the Monthyon

prize from the French Academy, it is difficult to discover that he has thrown any new light on the infirmity. Colombat's great merit consists in having systematised the subject; although his many sub-divisions are useless, and some of his principles erroneous.

There can be no doubt that a slow and measured delivery sometimes tends to diminish stuttering, and may prove beneficial in some cases of defective utterance; but nothing can be more erroneous than to assume that rhythm, however skilfully employed, is by itself, sufficiently potent permanently to remove a severe impediment. Post hoc, ergo propter hocbecause rhythm is in some uncomplicated cases a very useful adjunct: it has been by most writers cried up as a panacea for stuttering. The real fact is that it is not the rhythm which produces a beneficial effect, but its influence in altering, for the time being, the management of the breath; for the moment the patient begins his ordinary discourse the defect immediately reappears. Unless, therefore, the fons et origo mali—vicious respiration be first attended to, so as to establish a synchronous action between the respiratory, vocal, and enunciating organs under all circumstances, rhythm alone will produce little or no effect.

DR. BECQUEREL* believes that the cause of stuttering is a dynamic affection of the respiratory muscles, having probably its primary seat in the nervous system. The convulsive movements of the vocal and articulating organs; the difficulty of pronouncing certain syllables and their frequent repetition, are merely the consequences of the premature escape of the air which is not employed in the formation of sound. It is, therefore, necessary to prevent this escape of air, by retaining it as much as possible during speech. In stuttering it will be seen that the walls of the thorax sink too often, to expel the excess of air introduced. The result of it is that a larger quantity of air escapes than is necessary for articulation, and a sensible current of air arriving in the buccal cavity at the moment when the tongue, the lips, and the buccal parieties contract for articulation, impedes their free action, and produces stuttering. Such being the case, the loss of air must be prevented by retaining it as much as possible, and employing it in the formation of articulate sound.

Remarks.

Dr. BECQUEREL's theory, though defective, con-Traité du Begaiement. Paris, 1847. tains much that is true, which, in some cases may, under careful guidance, be carried out in practice. It appears that Dr. Becquerel himself—one of the most eminent living French physicians—laboured under an impediment of speech, and as none of his colleagues were able to afford him any help, he applied to a Mr. Jourdant, (not a medical practitioner) by whom he was much relieved, if not altogether cured. And it is the theory of Jourdant which our author has amplified and developed in his work.

Dr. Carpenter* concurs in the opinion of most authors that the defect called Stammering essentially consists in the want of power to combine the different actions concerned in vocalization. He also considers a disordered action of the nervous centres as the proximate cause; though this may be (to use the language of Dr. M. Hall) either of centric or eccentric origin. And whereas the stammerer experiences his greatest difficulties in the pronunciation of the consonants of the explosive class, he approves of Müller's suggestion that the patient would do well to practice sentences from which such consonants are omitted.

With regard to the cure of stammering, Dr. Carpenter makes the following suggestions:—

^{*} Principles of Human Physiology, 5th edition.

- "One of the most important objects to be aimed at in the treatment of stammering consists in the prevention of all emotional disturbances in connection with the art of speech; and thus requires the exercise and the direction of thought in the following modes:
- "To reduce mental emotion by a daily, hourly habit of abstracting the mind from the subject of stammering both while speaking and at other times.
- "To avoid exciting mental emotion by (not?) attempting unnecessarily to read or speak when the individual is conscious that he shall not be able to perform these actions without great distress.
- "3. To elude mental emotion by taking advantage of any little artifice to escape from stammering, so long as the artifice continues to be a successful one."

Remarks.

It would thus appear that Dr. Carpenter very justly looks upon stammering (which word he uses synonymously with stuttering), rather as a psychical affection which must be combated by psychical means. That there are some stutterers who are more free in their utterance when not thinking of their difficulty, or when their attention is, during speech, directed to

another object is very true, and in such cases the act of abstracting the mind from the subject of stammering may prove beneficial if the pupil had the power to do so; but the difficulty consists in reducing such a theory to practice. Nothing is easier than to advise the patient to withdraw his attention from his affliction—nothing more difficult to the stutterer to effect it.

To exercise a voluntary power over the direction of our thought when we are, by actual sensation, constantly reminded of our affliction, requires a mental effort which but few are capable of. And if the case be really merely psychical, and the patient have sufficient mastery over his mind, would it not be more rational to advise the patient to do just the reverse; that is to say, to direct his attention to his affliction, and to overcome it by concentrated firmness of purpose? We shall have to recur to this subject.

In extreme cases of mental abstraction and excitement, we find occasionally that fluent speech is given for the time; but in the majority of cases it is quite the reverse, especially if the person is labouring under fear, which is known to stop the secretions, especially of the salivary glands, causing a dryness in the mouth. Nor is it alone the stutterer who is often rendered

unable to speak under its influence. The most trivial thing will often obstruct an elegant flow of language, and overthrow an entire chain of thought, causing an utter incapability of pronouncing a word at will; as instance, Macbeth:

"But wherefore could I not pronounce
Amen? I had most need of blessing; and Amen
Stuck in my throat!"

And here I may state a circumstance very little known, which is, that some subjects stutter only in the presence of certain persons, while their articulation is more free in the presence of others. When a patient has once stuttered in conversing with a certain individual, the chances are that he will do so again on a similar occasion. Be it from association or other causes, there can be no doubt as to the fact itself.

CHAPTER VIII.

SURGICAL OPERATIONS.

JOUBERT (Historical Researches) endeavours to show that operations for defective utterance are not so new as is generally believed. Galen (200 A.D.) speaks of the thickening, induration, and shortening of the tongue, as influencing articulation, and recommends cauterisation. Aëtius, 400 years after Galen, also speaks of tongue-tied (ancyglossi). Paul of Aegina, in his Opus de re Med. advises the division of the ligature.

In 1608, Fabricius Hildanus operated upon his little brother, who, at the age of four years could not pronounce a word on account of the shortness and thickness of the frænum, by which the tongue could not reach the teeth and the palate. Dionis, in 1672, proposed to make two or three small incisions in the tongue of such children who seem not to articulate easily. All these operations appear, however, to have been confined to the division of the frænum, an opera-

tion as old as surgery, which has even been performed by mothers and nurses.

It was reserved for modern surgery to extend the operations to the muscular apparatus of the tongue, and Dieffenbach is generally considered as the chief authority for the practice.

Dieffenbach in his letter to the French Academy, March 1841, says: "The idea of curing stammering by means of an operation, first presented itself to my mind on being requested, by a patient cured of strabismus, to operate upon him for defective utterance. My attention being directed to the subject I remarked, indeed, that many persons affected by strabismus, had at the same time an impediment in their speech. As I was of opinion that the derangement in the mechanism of articulation was caused by a spasmodic condition of the air passages, which extended to the lingual and facial muscles, I conceived that, by interrupting the innervation in the muscular organs which participate in this abnormal condition, I might succeed in modifying or completely curing it." *

* Though there may be cases in which squinting is concomitant with psellism, they are exceptional, and have little or no relation to each other, whilst by interrupting the innervation, the respective parts are not merely modified, but paralysed in their functions. Amussat also claims the honour of applying surgical operations for the cure of defective utterance. In his letter to the French Academy (Feb. 1841), he writes that he conceived his idea of the method of dividing the genio-glossi as an extension of the operation for squinting, and that he communicated the idea to Mr. Philipps, when no one at Paris knew that it was treated so in Germany. Malebouche, on the other hand, says that Mrs. Leigh had advised it, and that it was acted upon years, before, in America.

Dr. R. Froriep again (Froriep's Notizen, 1841) conceived that the local cause of stammering was the retraction of the lingual muscles on one side only, which may be detected by the form of the tongue and the neck. He therefore confined himself to dividing the genio-glossus on one side only, and attributed to this mode his own success, whilst the division of both these muscles by Bonnet and others led to no certain results.

Whether, or not, Dieffenbach first introduced the practice, certain it is that the example of so high an authority gave rise to a host of operators, who by cutting different ways, aspired to the honour of being the inventors of some new method. They divided themselves in Castes. Philipp and Velpeau followed

Dieffenbach's or the German method. Amussat. Bonnet, Petrequin, and Robert in Marburg, divided the genio-glossi and genio-hyoidei; Langenbach in Goettingen, the stylo-glossi and hyo-glossi, and Wolff the nervus hypo-glossus. The English surgeons chiefly confined themselves to the excision of the tonsils and the uvula. The greatest zeal was exhibited in France, where not less than 200 persons were operated upon within one year. The rage for operations spread to America, where Dr. A. Post performed the first operation, May, 1841, by dividing the genio-hyo-glossi near their origin. Drs. Mott and Parker, of the New York University, devided the genio-hyo-glossi either by the knife or scissors, cutting closely to the symphysis of the lower jaw. In many instances the patients seemed immediately to be much benefited, and spoke with fluency. A few hours, however, dispelled the delusion, and they found themselves as bad as ever. Dr. Detmold passed needles through the tongue, and the same improvement followed, but as in the rest the impediment returned.

The utility of these operations has been deduced from their successful application in squinting, wry-neck and clubfoot. The premises were wrong, and the conclusion false. In these affections the evil is *permanent*

and always associated with a contraction or shortening of the respective muscles. Stuttering is, on the contrary, frequently temporary; were it the result of an organic defect it would be equally permanent. Dieffenbach found no organic defect in sixteen cases upon which he operated, nor were there any found in forty cases treated by Blume. Since then, the seat of stuttering is not in the tongue, it follows that all operations on that innocent organ are useless. No doubt, the patient frequently ceases stuttering either from the shock upon the system, or from his strong faith in the efficacy of the operation; but after the wound is healed up, he relapses into his old habit*.

Nor is it true as asserted by some surgeons, that stuttering frequently results from an abnormal condition of the tonsils and the uvula, and that the excision of these organs would relieve the impediment. Tumefaction of the tonsils exists in most cases, without producing stuttering, while few stutterers have enlarged tonsils; nor if they have, is it the cause of the infirmity. We may, however, admit that hypertrophied tonsils, or an

^{*} Schulthess cites a case of a young workman, a stutterer, whose arm was crushed by machinery so as to require amputation. He remained free from stuttering during the time the wound was suppurating; but the infirmity returned on its being healed up.

abnormal condition of the tongue, the palate, and the uvula, may and frequently does give rise to a stammer; that is to a defective articulation of certain sounds; but never are they the cause of stattering, which, as shown, essentially differs in its origin and its phenomena from stammering. There is then something in a name, i. e. in an exact definition of these affections; for from the confusion of the terms arose the confusion in their treatment.

Besides organic defects, the cause of stuttering has also been attributed to the defective action of the muscles of speech, that is, either to debility or to spasmodic action. Debility cannot be the cause, otherwise age, wounds, issues, which weaken the muscles, would increase the infirmity, and not, as experience shows, diminish it. Debility may cause a bad enunciation of individual sounds, that is stammering, but certainly not stuttering. Nor is the local spasm of the glottis the proximate cause; as, affections of the larynx rarely cause stuttering. All reasoning on this subject has been in a circle, and it might as well have been said a man stutters because he stutters.

Dr. Claessen, a distinguished German surgeon who performed a variety of operations, says (Casper's Workenscrift, 1841) "Although the results of my

experience would lose nothing by comparing them with those published, assuming them to be strictly true, still I am so little satisfied, that I have undertaken no operation of the kind since June 11th, though a number of afflicted persons vehemently desired it. I consider it my duty to dissuade all from performing such operations, as it is exceeding rare that the fault is in the action of the muscles, and that the evil is remedied by dividing them."

The following is a summary of surgical operations which have been from time to time recommended in various cases of defective articulation:—

- 1. Inability to enunciate the lingual r.
- (Transverse incision into the upper surface of the forepart of the tongue.)
 - 2. Inability to enunciate the palatial r or ch.

(Incision into the stylo-glossus, glosso-palatinus, with or without the excision of a triangular piece.)

- 3. Excision of a prismatic or longitudinal piece from the tongue, if it be too voluminous.
 - 4. Inability to pronounce the hard g, k, and n g.

(Division of the genio-glossi and the genio-hyoidei.)

5. Imperfect articulation of d, t, s, z, in consequence of the tip of the tongue not reaching the incisors.

(Division of the genio-glossi.)

The efforts made by my late father to put a stop to

such operations in England, supported by the unsatisfactory results obtained, proved after a time successful, so that at last the practice was discountenanced by all the most eminent members of the profession. In support of which I may quote the following passages from a leading medical journal.

"The sanguinary operations which have recently been devised and executed, with the view of curing stammering, are one of the greatest outrages upon modern Although some of them had their origin in legitimate motives, most we fear serve but to show what ruthless expedients will be occasionally resorted to for the purpose of acquiring professional fame, however short-lived, and to what extent the ignorant and the credulous will become a prey to craft and subtlety. If our indignation was awakened at the barbarous cruelties practised upon dumb animals for the sake of elucidating the truth, of physiology, how much more ought it to be when we consider the multitudes of our fellow-beings who have suffered themselves to be maimed and mutilated at the instigation of individuals more remarkable for their reckless use of the knife than for the soundness of the medical science."*

Brit. and Foreign Med. Review, vol. xii.

"It is ascertained that persons who have stammered in the highest degree, have been remarkable for the perfect integrity of conformation and structure of all the organs of voice and speech; while others who have laboured under a faulty or diseased condition of these organs have preserved their articulation unimpaired."

But though it is now comparatively rare to hear of an operation of cutting out a transverse wedge from the tongue in eases of psellismus, there are still persons who submit to have their tonsils removed for thickness of speech, and the uvula extirpated. The whole subject of operations of this nature is ably handled by Mr. Harvey,* who says—"Another defect for which the removal of these bodies has been most strangely and unaccountably suggested is defective utterance. Now, how such an expedient for removing that painful and distressing condition could enter the mind of anyone I cannot conceive." That the operation of taking off the clongated uvula is also useless there is ample proof given in the work from which I have quoted.

Enlarged tonsils are often found in young persons, but they grow out of it in time. In proof of this assertion, I quote from Mr. Vincent, who says—"I have

^{*} On Excision of the Enlarged Tonsils and its Consequences. By William Harvey, Esq., F.R.C.S., &c. Renshaw.

seen very many cases of enlarged tonsils, producing the greatest annoyance in patients at fifteen, which have gradually assumed the natural size by the time the subject arrived at maturity. If we consider the great utility of these glands in secreting a mucus of a peculiarly lubricating fluid, so valuable in the economy of deglutition, I cannot regard it as a good practice to remove these parts so unsparingly as I have known."

Experience has shown me that inflamed tonsils and elongated uvula are often accompanied with stammering; but on that being removed, this state generally ccases. The continual misuse of the organs, the violent action of the breath, which we often find in stuttering and stammering, are quite sufficient causes to produce this result, which is, in most cases, only the effect of stammering, and according to the admitted axiom, on the cause being removed the effect will cease.

CHAPTER IX.

IS PSELLISM* A DISEASE?

The plea so long urged by medical authors that psellism is a *disease*, and lies, therefore, within the province of medicine, into which no layman has a right to enter, is now generally abandoned; and is at present only advanced by some antediluvian practitioners.

On this point my late father wrote thus:-

"I deny that stuttering is a disease. It is an imperfection occasioned by organic, physical, or accidental causes—the want of some proper regulation or use, and not a disease—though the fruitful source of many diseases, some of which, by re-action, may be confounded with the original cause, such, for example, as palpitation of the heart, derangement of the nervous system, pulmonary affections, all inducing constitutional debility, both physical and mental, and frequently ending in premature death. These are the effects of stuttering;

^{*} Psellism is here and elsewhere used as a generic term for impediments of speech in general.

but therefore to call a misapplication of the tongue, the jaws, the throat, or the breath, a disease, appears to me a ridiculous error."

It is remarkable that the question whether stammering be a disease has already been discussed by the Ancients. Thus we find in Gellius that stuttering and stammering are rather vices than diseases, just as a biting and kicking horse is vicious, but not diseased.*

Ulpian (dig. tit.) says, it is asked whether the stammerer, the lisper, and such who hesitate in their speech, and the halting, are sound? I am of opinion they are.†

It may be safely asserted that no *iliopathic* stutterer was ever cured by a mere therapeutic treatment. *Medice te ipsum cura!* Physician, cure thyself! Now, it is a somewhat curious fact, that there are still alive some eminent physicians, who, having been stutterers, wrote books on psellism, giving very learned reasons as to the how and why they and others stuttered, but were not delivered from their infirmity until they con-

^{*} Balbus autem et atypus vitiosi magis quam morbosi, ut equus mordax aut calcitro, vitiosus non morbosus est.

[†] Qaesitum est aut balbus et blaesus, et atypus isque qui tardius loquitur et varus et vatius sanus sit! Et opinor eos sanos esse.

descended to place themselves under the care of a layman, who had made the subject his exclusive study. The fact is, that unless a medical man has for years devoted all his energy to the subject, and brings to bear upon it an ample knowledge of the various phases of the disorder, founded upon rigorous deduction and extensive experience, combined with an intimate acquaintance with the structure of language and effective delivery, he is but little likely to benefit the stutterer.

Most rational physicians now admit, that discipline of the vocal and articulating organs, under an experienced instructor, is the only means of overcoming impediments of speech.

But while I deny that idiopathic stuttering is an actual disease, I admit that cases of psellism, do occur, requiring, in the first instance, the aid of the physician or the surgeon. When, for example, I have cause to presume that stammering is decidedly a symptom of a primary affection in some part of the nervous centre, I never fail to recommend the applicant to consult a respectable physician. Again, if the defect can be clearly traced to defective organisation, the surgeon must be called in to remedy it, if possible. Thus, when a person has a cleft palate, science can supply the defect by an artificial palate, after which the patient

still requires to be instructed how to make a proper use of the foreign organ; in illustration of which, I quote the following case:—

"Mr. D. P., ætat 17, has a genital fissure in the palate—articulates very imperfectly. The sound of his voice was very unpleasant, and many of his words are unintelligible. Six months after the operation Mr. P. had made no improvement in his speech, when he put himself under the tuition of Mr. Hunt. In the course of a few weeks an extraordinary change was effected, and ere long the articulation was so different that little more could be desired."

There is a nervous affection, which, in more than one of its essential features, bears a great resemblance to some sorts of psellism, namely *Chorea*, or St. Vitus's Dance, the characteristics of which are a want of control over the movements of the muscles of one or more of the limbs, the face, or the trunk. Like psellism, it usually occurs before puberty, and is frequently as little under the control of medicine as the irregular motions of the respiratory and articulating organs in defective utter-

⁴ Extracts from Observations on C'eft Palate. By William Ferguson, Esq. F.R.S., Professor of Surgery, King's College. The details of the case are given in Vol. XVIII of the Medico-Chirurgical Transactions.

ance. Both increase or diminish under nervous excitement; and so apparently similar are these affections, that stuttering has been called a chorea of the articulating muscles. But it is remarkable that, from some not yet explained cause, chorea seems to be chiefly confined to the female sex, and is now found to yield rather to gymnastic than to medical treatment, as will appear from the following extracts from a French periodical.

"The first who employed gymnastics for the cure of St. Vitus's Dance were the priests. The patients were assembled after Mass, and made to dance to sacred music, plaints were sung, which obliged them to dance to measure. Recamier applied rhythm in [numerous convulsive affections. He was of opinion that if the muscular motions could be rendered habitually regular by alternate contraction and relaxation, a cure might be effected. For this purpose he assembled his patients at night at the Place Vendôme and made themfollow the drummers, beating the tattoo. Any other instrument, for instance, the metronome, may be employed. We commence to make the patients execute on command, motions with one arm or one leg, after which we proceed to combined movements. follow rapid movements, which are by far the easiest, there being no sufficient interval for the choreic uncertainty to supervene. Finally, we make them execute combined slow movements.

M. Sée reports that of twenty-two children treated exclusively by gymnastics, eighteen were cured in twenty-nine days.

The results were less satisfactory when medicaments were administered. M. Blache, Physician to the Hôpital des Enfants, concludes his memoire, read before the Académie de Médecine, as follows:—1. That no treatment is so efficacious in chorea as the gymnastic, whether applied alone, or in combination with the sulphur bath. 2. That the former can be employed in every case, whilst other remedies are frequently counterindicated. 3. That in the gymnastic treatment amelioration becomes apparent during the first few days. 4. That whilst the disorder disappears the constitution generally is greatly benefited."*

Thus it would appear that even in those cases, when stammering or stuttering either results from, or co-exists with chorea, systematic exercise of the various organs, judiciously applied, will not only cure the stammer and the primary affection, but will greatly improve the constitution. It has ever formed part of

^{*} Archives gen. de Médecine, 1854.

my system to combine oral instruction with the practical training of all the organs, directly or indirectly concerned in the production of sound and speech, by means of appropriate gymnastic exercise calculated to strengthen the respective organs, and to bring them under the control of the pupil; and I have the satisfaction of knowing that few have left my establishment without great improvement in their general health.

On this point I also quote the following, extracted from the Irrationale of Speech:—"A stammerer's life is (unless he be a very clod) a life of misery, growing with this growth, and deepening as his knowledge of life, and his aspirations deepen. One comfort he has, truly—that the said life is not likely to be a long one. Some readers may smile at this assertion. Let them think for themselves. How many old people have they ever heard stammer? I have known but two. One is a very slight case; the other a very severe one. He, a man of fortune, dragged on a painful and pitiable existence—nervous, decrepid, effeminate, asthmatic—kept alive by continual nursing. Had he been a labouring man, he would have died thirty years sooner than he did.

"The cause is simple enough. Continued depression of spirits wears out body as well as mind. The lungs, never acting rightly, never oxygenate the blood sufficiently. The vital energy, (whatever that may be) continually directed to the organs of speech, and used up there in the miserable spasms of misarticulation, cannot feed the rest of the body: and the man too often becomes pale, thin, flaccid, with contracted chest, loose ribs, and bad digestion. I have seen a stammering boy of twelve stunted, thin as a ghost, and with every sign of approaching consumption. I have seen that boy, a few months after being cured, upright, ruddy, stout, eating heartily, and beginning to grow faster than he had ever grown in his life. I never knew a single case of cure in which the health did not begin to improve there and then."

The intimate relations of body and mind, and their mutual dependance upon each other, are constantly manifested in the phenomena of utterance. Thus in many cases the infirmity is increased or diminished, according to the impaired or healthy state of the digestive and other functions. If it cannot be denied that nervousness may produce stammering or stuttering; it is not less true that stuttering will produce nervousness, and perhaps, in the course of time, organic disease. In such cases the cure of stuttering will tend to re-establish health. I have known it arrest the

progress of pulmonary disease, while in every case, its removal has had the effect of calming and invigorating the whole system.

The action on the young is in some cases very marked, often stopping the growth.* I have known youths after the cure to grow two inches in three months which is to be accounted for by the nourishment acting now in a natural manner on the system, which before was unduly appropriated to the support of the misused organs.

* "We have some reason to believe that the formative power of the tissues themselves may be diminished, so as to check the process of nutrition, even when the plastic material is supplied; and a diminution of it in that irritable state of the system which results from excessive and prolonged bodily exertion, or anxiety of mind." Carpenter's Human Physiology.

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CHAPTER X.

PRACTICE OF THE AUTHOR.

Trunk exists, porhaps, a well founded projudice against secret remedies. We may, in the abstract, admit that a person in full possession of a remody tending to relieve any of the ills in idental to the human frame is morally bound to divulge it, and to look for a reward in his own consciouse; even although a professional man's experience may be his stock in trade.

But is it not absurd to talk of the secresy of a system, which has now been in active operation for many years, and must consequently be known to many hundreds, if not thousands? The secret is in the application of the system, and not in the system itself.

Let us take a case in point, though the greatest precautions were taken to keep the construction of the "Armstrong gun" a secret, its structure is well knownand duly commented upon in various periodicals. The real secret of it, however, though it may be divulged, cannot be easily communicated, for it consists in the employment of superior tools, in the skill of the workmen, and in the ingenious mode of combination requisite for a variety of purposes.

The secret of my system is experience; it neither consists in an operation, in a charm, or a potion; its name is legion, according to the legion of shades which the calamity exhibits; for there is no affection which is so capricious, and so much defies correct description. I believe there is no one term which presents such extremes of differences, both in degree, and in kind as the word stammering, used in a comprehensive sense. Even if there were, in this system, an uniform system of rules, it would not be applicable to all cases, as there are no two persons who are physically and mentally constituted alike.

The stammer or stutter of one never exactly resembles that of another. Each case has its peculiar symptoms and a physiognomy of its own. Simple of application as my system is in one case, it is intricate and complicated in another. But were it even possible to describe all the minutiæ of a mode of treatment adapted to all imaginable cases, it would be useless, if not pro-

ductive of mischief, unless the individual who applies it has qualified himself for the task by an extended practical experience.

All that I ever pretended to, was to have rigidly followed in the footsteps of my late father, who, by unshaekling himself from preconceived theories, and by taking nature as his guide, has established the basis of a method which has now stood the test of time, and the soundness of which becomes more and more confirmed by our daily increasing knowledge of the structure and functions of the vocal and articulating apparatus.

The eminent writer before quoted gives his valuable opinion on this point in the following words:—

"There is no secret in Mr. Hunt's 'system,' except in as far as all natural processes are a secret to those who do not care to find them out. Any one who will examine for himself how he speaks plainly, and how his stammering neighbour does not, may cure him, as Mr. Hunt did, and "Conquer Nature by obeying her," but he will not do it. He must give a lifetime to the work, as he must to any work which he wishes to do well. And he had far better leave the work to the few (when I say few, I know none but my friend, Dr. James Hunt) who have made it their ergon and differential energy

throughout life. Still less will those succeed who, having got hold of a few of old Mr. Hunt's rules, faney that they know his secret. Old Mr. Hunt's secret was, a shrewd English brain, backed by bull-dog English det : mination, to judge from the remarkable bust of him which exists, and which would have made him do named other things, had he chosen, besides curing stamordering. And the man who tries to trade on his conch lens, without possessing his faculty, or having Lor' d through his experiments, will be like him who should by to operate in the hospital theatre, after cramming up a book on anatomy, or throw himself into a por lafter hearing a lecture on swimming. He will his rules in the wrong order, and to the wrong . tes; he will be puzzled by a set of unexpected and the lesified symptoms, and be infallibly wrong in his dia mosis.

"For instance, put two men before a see ind-hand pretender of this kind; one of whom (to give a submon instance) stammers from a full lung, the other from an empty one. Each requires to be started on a different method, and he will most probably (unconscious of the difference between them) try the same method for both; while if the empty-lunged man have a hard, round chest, and the full-lunged man have a soft and flat one, he will never find out which is which. The matter is a study by itself; and had Dr. James Hunt, in his book, told all he knew of the methods of cure, he would not have injured himself one whit—except in as far as he might have raised up a set of quachs whother medical or other, trading on his name, as in larging him into disrepute by their failure.

Having devoted myself to a special bear is of physiology, and witnessed the fruits of thirty pears' experitive in my father's and my own practice. I feel now that it is my duty to earry out the system in a manner which shall compass the greatest amount of peactical goal. As already stated, my teaching incomes neither with the practice of the physician or such on. I protend to nothing more than the employeaute of instruction and reason to remedy, in the vast and rity of cases, these painful impediments which conditate not only a barrier to the common intercourse and enjoyments of life, but to individual advancement in any class of professional or social pursuit.

This brings me to the consideration of the benefit that has been and may be derived from the perusal of books professing to lay down definite rules for the cure of psellism, from whatever cause or causes it may have arisen. Persons who have not duly reflected on

^{*} Fraser's Magazine, July, 1859.

the subject, and ignorant that psellism does not arise from one but many causes, have felt disappointed that I have not given minute instructions for the removal of each individual defect.

In my Manual of the Philosophy of Voice and Speech, and in this, and former treatises, I have given abundant general rules in relation to the cultivation of the voice and the regulation of respiratory action, the observance of which will prevent stuttering. By studying these rules, an intelligent person possessing tenacity of purpose and self-control, may succeed in freeing himself in certain cases from his defect. But where there are severe faults of articulation, confirmed by long habit, the mere perusal of written rules and their application in attempts at a self-cure, will not only fail but actually increase the disorder, rendering it more complicated by the contraction of other bad habits. I know from experience that the great majority of sufferers, who have applied to me for relief, had previously read and tried the multifarious plans recommended by a great variety of authors, and I had always greater trouble in curing these, compared with such who were free from any preconceived theory. common saying "a man who is his own doctor has a fool for his patient" applies equally to the stutterer.

Nothing is more certain than that in inveterate and severe cases of stuttering, the patients require for a certain period, the constant aid of an experienced teacher, who, having traced the cause of the evil, adapts the treatment accordingly. The main thing is to form a correct diagnosis; but this can only be acquired by long practice. The distinctive marks are frequently so blended that the superficial observer may consider two cases as identical which have searcely any analogy to each other, and require an essentially different treatment.

It has ever been a fundamental error to assert that there is but one cause which produces the various degrees of stammering and stuttering, and consequently one remedy to be applied. The result has shown that all systems, which have been propounded on such a narrow basis, have been rendered comparatively useless. On the other hand, there is perhaps no affliction to which the human frame is liable, which has been attempted to be cured in so many different ways.

The famous pebbles of Demosthenes; a bullet in the mouth; a roll of linen under the tongue; the fork of Itard; the *bride-langue* of Colombat; the whalebone of Malebouche; the stick behind the back; intoning; speaking through the nose; talking with

the teeth closed; all these have been successively advised and applied to remedy faults which existed only in the imagination of the advisers. And if they produced any effect it consisted frequently in creating new defects. One thing is certain, that nearly every one of these contrivances seemed to loose its efficacy as soon as the secret was divulged.

The following is written by one who, having tried nearly every system in his own person, is well able to estimate the comparative value of the general principles upon which my treatment is based:—

"The elder Hunt's 'System,' as he called it, is a very justify instance of sound inductive method his on by simple patience and common sense. He first will to find out how people stammered; and for this jurpose had to find out how people spoke plais—to compare the normal with the abnormal use of the organs. But this involved finding out what the organs used were, a mafter little understood thirty years ago by scientific men, still less by Hunt, who had only a Cambridge education, and mother wit to help him. However, he found out; and therewith found out, by patient comparing of health with unhealth, a fact which seems to have escaped all before him—that the abuse neither of the tongue nor any other single organ

is the cause of stammering—that the whole malady is so complicated that it is very difficult to perceive what organs are abused at any given moment-quite inpossible to discover what organ first went wrong, and set the rest wrong. For nature, in the perpetual stru ,gle to return to a goal to which she knows not the path, is ever trying to correct one morbid action by another; and to expel vice by vice; ever trying fresh experiment. of mis-speaking, and failing, alas! in all; so that the stammerer may take very different forms from year to year; and the boy who began to stammer with the H. may go on to chammer with the tengue, then with the jaw, and hat, and worst of all, with the breath; and in after life, try to rid himself of one abuse by to lag in alternation all the other three. To these four all as -of the lips, of the tongue, of the jaw, and of the breath-old Lir. Hunt reduced his puzzling mass of morbid phenomena; and I for one believe his disistant to be sound and exhaustive. He saw, too, soon, that stammering was no organic disease, but simply the loss of a habit (always unconscious) of articulation; and his notion of his work was naturally, and without dodge or trick, to teach the patient to speak consciously, as other men spoke unconsciously."

^{*} Irrationale of Speech.

Treatment.

Before determining upon the treatment to be adopted, I make it a point to inquire whether any relatives of the patient labour under the same infirmity, and whether he stammers in singing. After a careful examination of the buccal cavity, and inducing the patient to move his tongue in every possible direction, I ask a few questions, and desire him to read passages of poetry and prose, in order to observe whether his difficulty lies in the enunciation of the lingual, labial, or guttural sounds, and also to see what mannerism or tricks have been acquired. The motions of the lower jaw, the elevation and depression of the larynx, the rhythm of the respiratory organs during enunciation, and the action of the heart, require particular attention before we are enabled to form a correct diagnosis. The constitution, age, sex, the duration of the infirmity, the original cause of the defect, the mental disposition and moral habits of the patient, must all be taken into consideration before the treatment can be decided upon.

If no organic defect can be detected, it will, in most cases, be found, that the infirmity is simply owing to the

misuse of one or more organs which are employed either with too much force, or not used at all; the necessary result of which is disharmony between vocalisation and articulation—the chief source of stuttering. Articulation may be normal, and vocalisation defective, and vice versâ. To establish the requisite harmony between all organs concerned is the object to be aimed at.

If the question be asked, how it can be ascertained that the infirmity is not the result of defective organisation, the answer is, by first inspecting the respective organs as far as we may be able; for such an examination mostly extends only to the organs contained in the buccal cavity.* But the actual proof that there exists no organic disease, is obtained by placing the patient, under certain new conditions, and observing whether his speech becomes more free. Does the patient both stammer and stutter? Does he stammer or stutter while singing or reciting? Is his articulation more distinct when reading alone, or talking to himself?

^{*} Professor Czermack of Pesth, has recently given at Paris some demonstrations with his laryngo-scope, which is very likely an improvement of a contrivance employed years ago by Garcia. The surgeon introduces, with great care below the uvula, a little mirror, the back of which is in contact with the uvula, so that the larynx may be completely seen. Whether any new light will thereby be thrown on the action of the larynx remains to be seen.

What are his most difficult letters of the alphabet? Is the disorder intermittent or permanent? Now whenever we find defective utterance yielding to altered circumstances, we may fairly take for granted that the structure of the organs has nothing to do with the impediment, for actual organic disease is known by the permanence of its symptoms, so that the subject ought then to stammer or stutter under all circumstances.

Psychical Treatment.

It is admitted that the exciting cause of speech is in the mind, so that perfect idiots are mute from the absence of the intellectual stimulant. The mind is thus the master of speech, and through it alone can we act on the organs necessary for the process of articulation. When we lose our control over the mind, we have none over the bodily organs under its influence, and an improper action is the result.

Now most of the methods recommended have that in common, that they leave the psychical element nearly out of sight, being almost exclusively directed to the action of the vocal and articulating organs, and are thus wanting one of the most important means for ultimate success. It is impossible to lay down any precise rules in regard to the psychical treatment of the stutterer, for it is clear that it must be adapted, not merely to the intellectual and moral capacity, but also to the temperament of the patient. The sanguine, the phlegmatic the cholerie, and the nervous stufferer, and ire cash the application of a different method. It what object however, in all cases is to impart to the patient of a content to the patient when he shows grind, on I med it is a first, physical and mechanical means proper but of the confit.

The article of the power of the milet ever the home with regard to stuttering, not owing to organic line is, I may state the following fact from amongst among of a sire for mature. One of my pupils, a talented clargement, before coming to me, has occasion to deliver a sermen—a task which, under the circumstances—being afflicted with a severe impediment of speech—he would much rather have avoided. Perceiving at the very outset, that the peculiarity of his enunciation caused an unseemly merriment among his congregation, his feelings were roused to such a pitch, that he inwardly vowed to give them no further cause for it, and he fully succeeded; for he went on

with his discourse to the end without once faltering. But the excitement proved too much for him; the concentration of mental energy was, as usual, followed by reaction, and he felt utterly prostrate for several days, and stuttered fearfully until he placed himself under my tuition. Since I have acquainted him with the causes of his impediment, and having, by practice, brought his rebellious organs under control, he feels not more surprised at the simplicity of the means by which he obtained this command, than at the circumstance, that with all his reading and talents he did not himself discover so obvious a remedy.

Stammerers and stutterers are frequently looked upon as a careless, petulant, and indolent class—a set of imbeciles—than which nothing can generally be more erroneous. That the temper of many such sufferers has been sour'd by continued annoyances; that some exhibit signs of indolence which convey the impression of stupidity is true, but this is no more than would occur under the same circumstances to any other persons. Often have I found excellent qualities of head and heart thus obscured; but the cause being removed, and sufficient time allowed for the sufferer to regain his bodily health and mental vigour, he, no longer restrained by his infirmity, not

only frequently equals, but rises superior to his unfettered companions. We behold him now speaking with fluency and pleasure in society where formerly he could not utter a sentence. I may illustrate this by the following case—

A young gentleman, the son of a dignitary of the Church of England, labouring under a severe impediment of speech, became a pupil of my late father. Being of a persevering character, he not only, in due time, conquered the impediment, but actually acquired such a command over his organs, that he, shortly after, carried off the prize as the best reader of his year, as scholar of Trinity College, Cambridge.

There was, therefore, in this case (by no means an unusual one) not only a blemish removed, but a beauty created where previously deformity existed. This result, though scarcely expected, is natural enough; for a stutterer who has gone through a systematic course must, if perfectly cured, generally be a better reader and speaker than are usually met with, inasmuch as the very discipline, requisite to overcome impediments in speech, leads simultaneously to correct reading, and fluent, and ready delivery.

It frequently happens that the cure of psellism brings out latent capabilities, which might have

remained dormant had they not been roused by the removal of the cause which concealed them. It is no uncommon occurrence to find a fine voice, and many other qualifications for oratory, hidden under a distressing delivery. Under appropriate treatment, the enemy is not only vanquished, but his post advanter, ously occupied; wealness yields the place to strength, and strength establishes the foundation of excellence.

To ascertained cause of the impediment should be emplained to the pupil, for few, if any, stutterers are aways of the reason why they have a difficulty of utterance. Vocalisation and articulation are intuitively acquired in infancy; but the mode and the cause of their production is unknown even to many adults. Now it is not exactly requisite minutely to explain to the stutterer the individual and collective action of all the organs concerned. This would defeat our very purpose; for finding it so complicate a mechanism it would but increase his apprehension that he could ever obtain the mastery over it. But it is necessary to point out to the patient, in the first place, the manner in which voice is produced, and articulation effected, and the ostensible reason why he has a difficulty in speech. He must be made to concentrate his attention to the

main source of his impediment, whether the fault be in the action of the respiratory, vocal, or articulating apparatus. By these means the mind of the patient is acted upon, scepticism and mistrust is removed, confidence is established, and the subject is inspired with the hope that he may ultimately recover his fluency of speech.

CHAPTER XI.

MANAGEMENT OF STUTTERING CHILDREN, ETC.

During the reign of terror in our educational establishments, when learning and morality were beaten into the reluctant minds of the rising generation, it was but natural that the application of the rod was considered an effective means to cure psellism. I am therefore not surprised to find that even the great Joseph Frank recommends, in his *Practice of Medicine*, cuffs and kicks as proper remedies in certain cases of impediments. But though the flogging system has in recent times lost caste, the treatment of stammering and stuttering children is still very irrational.

Some severity may be advisable in those cases when the infirmity is presumed to be mimicked either for fun, or for deception. It is, however, not so easy for persons unacquainted with the various causes and symptoms to detect the difference between real or pretended stammering, and many children really afflicted have been treated with great injustice on that account. A susceptible, timid child, constantly in awe of an ignorant parent, or a brutal master, may be made to stutter by cruel treatment. I cannot, therefore, but fully concur in the following forcible remarks, merely adding that the fundamental principle of all rational education—suaviter in modo, fortiler in re—is a fortiori applicable to the cure of stammering.

"And here I say boldly that the stupidity and cruelty with which stammering children are too often treated, is enough to rouse indignation. They are told, "You can help it if you like!' As if they knew how to help it. They are asked, "Why cannot you speak like other people?" As if it were not torture enough tosee other people speaking as they cannot; to see the rest of the world walking smoothly along a road which they cannot find, and are laughed at for not finding; while those who walk proudly along cannot tell them how they keep on it. They are even told, "You do it on purpose!' As if they were not writhing with shame every time they open their mouths. All this begets in the stammerer a habit of secresy, of feeling himself cut off from his kindred; of brooding over his thoughts, of fancying himself under a mysterious curse, which sometimes (as I have known it do) tempts him to actual suicide; sometimes (as I have known it do) seems the possession of a demon. If it proceeded from an organic defect, a deformity, he would know that he could not dance. If he was blind he would not expect to see. But when he knows there is no deformity, that his organs are just as perfect as other people's, the very seeming causelessness of the malady makes it utterly intolerable."*

Whether it be from inattention, or from inability of distinguishing between the difficulty of enunciating certain syllables and words in early infancy, and actual psellism, it is certain that the first inclination to stammer is little noticed, and that it is only about the period of the second dentition that the attention of the parents is fairly roused. The hope which many parents entertain that the affection may spontaneously decline, is, unless it proceeds from a transitory disorder, rarely realised. The defect, on the contrary, commonly increases with approaching puberty, and sometimes becomes then developed in its worst form.

Parents, therefore, cannot too often be reminded, that the proper time for seeking the aid of an expe-

^{*} Irrationale of Speech.

rienced practitioner is the period when the infirmity first manifests itself, when the evil may be more easily removed, while the cure becomes more difficult and tedious, when indistinct articulation has become habitual.

One of the causes of defective articulation, which has scarcely been noticed, is the foolish manner in which children are talked to by ignorant nurses and fond mothers; to which must be added the careless and faulty manner in which they are taught to speak and read. It is searcely necessary to remark that parents cannot be too careful to select nurses and teachers free from any defect of speech.

The celebrated Dr. Priestley, who laboured under an impediment of speech, was conscientious enough to retire from his profession of a teacher, as he well knew how contagious, if we may use the term, stuttering is. In Priestley's time the nature of the infirmity was but little understood, and he abandoned all hope of being relieved of his impediment.

Elocution,

I do not intend entering here upon any discussion as to the value of elecution as a branch of elementary education. I have done so elsewhere (see *Philosophy*

of Voice and Speech); but this much I may observe, that there have been, and there are elocutionists under whose instructions great advantages may be acquired. But unfortunately such men are sometimes called in to correct inveterate errors, instead of instituting elementary principles at the outset, before the contraction of bad habits. Elecution, as now understood, seems only a method of varnishing the voice, and of teaching the imitation of some particular style or rhythmical mode of speaking and reading; no wonder that the study of elecution has fallen into disrepute. Properly to develop the vocal and articulating organs, we must be guided by some fixed principles, with which the majority of those who teach children to read are totally unacquainted. The same may be said of many who style themselves elocutionists.

Relapses. The French and German commissions, which examined the patients presented before them, after having undergone the treatment employed by their respective tutors, pronounced most of them perfectly cured of their infirmity. Yet it is certain that many of these, after a shorter or longer period of time, relapsed into their old habit. The questions, therefore, arose whether a radical cure be at all possible, or whether the systems employed were in fault. Now, I

will not attempt to deny that similar cases, though not to any extent, have occurred in my own practice. But when it is considered that the old habit, which perhaps has existed for years, is still strong, and can, especially in inveterate cases, be only controlled by constant attention to the rules for harmonising the motions of the articulative organs with the vocal and respiratory functions, it is wonderful that the relapses are not more frequent.

The few—for I venture to say not one in ten of my pupils have experienced relapses—have candidly imputed it to their own carelessness, and not to the system; for what was possible once must be possible again. In some cases circumstances prevented the pupil from going through the whole requisite discipline. Others, again, are too sanguine, and consider themselves perfectly cured on having acquired a certain fluency of utterance, while in some, the constant fear of relapsing is the cause of its actual occurrence.

Mr. Malebouche says that his experience was, "That those cures which are the most quickly effected are the least durable;" I have certainly found a tendency to the same result; but by due caution, such a rule has been by no means general.

I fully agree with Mr. Malebouche, however, when he says, "That it is important to concentrate the mind exclusively upon the object to be obtained by the treatment. Children, and that class of men of the world who are accustomed to descant upon and discuss everything without ever concluding upon anything, are incapable of this concentration of the attention, and for that reason are difficult to cure."

To effect a perfect cure, it is absolutely necessary to appeal to the reason, and arouse the will to a vigilant control over all the voluntary nerves and muscles. When pupils are too indolent or too careless to exercise this control, the cure becomes very difficult and uncertain.

One principal reason, however, of failure, has justly been observed by Dr. Warren, an eminent physician of the United States, to be that teachers require too little time; and consequently many of the cures are not permanent. A habit that has been confirmed by years cannot be eradicated in a very short time. This remark as to the length of time required for the cure of children applies still more forcibly to the case of adults. The more confirmed the habit, the more complicated it is, and the longer the time requisite for its eradication. In regard to the discipline of the organs, an experienced instructor is of the utmost importance. The advice

which Dr. Warren gives to parents is so judicious that I cannot refrain from quoting it.

"Seek out a person who has experience in the treatment of impediments of speech. Place him under his care, and if he is benefited, do not remove him, and think to perfect the cure yourself. Three months is a very short time for him to remain under the superintendence of an instructor; six months is better, and where it is practicable, he should remain a year. If this interferes with other studies, it is of no consequence; he will derive benefit enough to compensate for the loss. The age I should fix upon for the trial should be from eight to twelve. At this period the loss of a year's study may be a gain. If he meets there others who are affected as he is, it is all the better; he will no longer look upon his case as a peculiar one; and if he sees others whose impediments are worse than his, it will give him additional courage."

This is very true, for very sensitive pupils are apt to doubt themselves, and fail in consequence of want of confidence. But when they observe the successful effects of the system in which they are to be instructed, the conviction is forced upon their minds that they need only follow the same course to reap the same benefit.

Concluding Remarks.

As the subjects are frequently young persons with irritable nerves, or extremely shy and bashful, it is, in most cases, requisite that they should, for a given time, be withdrawn from certain home influences—too often the exciting causes of psellism in its various forms.

When defective articulation is the result or the concomitant of debility, whether congenital or acquired, a permanent cure can in such cases be only effected by placing the pupil under such favourable circumstances, that whilst the organs concerned undergo the requisite training, their healthy action may be restored and sustained by the invigoration of the whole frame.

The number of apparently intractable cases, which yielded to treatment during my annual temporary so-journ on the coast, have convinced me of the great value of a country and marine residence as an adjuvant in many cases, depending upon affections of the vocal and respiratory apparatus. In order, therefore, fully to carry out my system, I have formed a permanent establishment* for the treatment of defective articulation, which enables me to afford residential accommodation to a limited number of pupils.

^{*} Ore House, near Hastings.

The advantages offered by the locality selected, considered one of the most salubrious spots in Sussex, are sufficiently obvious. The house commands extensive land and sea views; the air is pure and bracing, and the environs offer all requisites for health and recreation.

Physical training, generally so much neglected, receives due attention, and all means are resorted to for producing bodily vigour. The cultivation of the intellect and the inculcation of moral habits is not less carefully attended to.

As, independent of any impediment, many find it a difficult task extemporaneously to address an assembly, it forms a prominent feature in the plan of instruction to afford to the pupils constant opportunities to read, debate, and speak on various subjects before others, the frequent practice of which being absolutely requisite to overcome the natural diffidence, and to restore a feeling of confidence and self-reliance.



APPENDIX A.

Abridged Notice of the Life of the late Thomas Hunt.

The late Thomas Hunt was born in Dorsetshire, in 1802 His progenitors and family were connected with the Church of England, and he was educated at Winchester, and Trinity College, Cambridge, with a view to a similar provision in holy orders.

While at Cambridge, Mr. Hunt's attention was, by the affliction of a fellow-student, forcibly drawn to the investigation of the causes which produce stammering—a disorder then held to be incurable. Having, by various successfully treated cases, satisfied himself that he had discovered a rational system for the cure of this infirmity, he left college with the determination of devoting himself to that pursuit, which soon became the engrossing business of his life.

An extended provincial tour, undertaken to enlarge his experience, only confirmed his opinion as to the real nature of the disorder, and the most appropriate remedies for its removal.

One of the earliest proofs of his provincial success, is vouched for by Sir John Forbes.

"Mr. Hunt was kind enough to give a lesson in my presence to Thomas Miles (a patient in the Chichester Infirmary), a poor man who has been affected with stammer-

ing, in a very high degree, from his infancy. And from the unreserved exposition of his principles on that occasion, as well as from the remarkable improvement (amounting almost to a complete cure) produced by this single lesson, I am of opinion that Mr. Hunt's method will be successful in nearly every case of stammering not depending on any organic defect, provided the requisite degree of attention is paid by the pupil."

JOHN FORBES, M.D."

"Chichester, April 12, 1828."

Thus fortified by the happy results of his labours in all parts of the country, Mr. Hunt finally resolved to settle in the metropolis, where at first he experienced, to the full, all the difficulties which usually attend the establishment of a new theory. In spite of all obstacles, however, Mr. Hunt's system gradually rose in public estimation, and the evidence of its merits became too convincing to be withstood. greatest surgeon of the day, the late Mr. Robert Liston, stepped before the public, and not only raised his voice against any further mutilations, but evinced his admiration of the simplicity and efficacy of Mr. Hunt's system, by recommending to medical and other students to avail themselves of Mr. Hunt's tuition. Those only who know how scrupulously chary that eminent surgeon was to give the sanction of his name to aught, either professional or general, which he could not conscientiously approve, can estimate the paramount importance of such aid.

"I have, with much pleasure, witnessed Mr. Hunt's process for the removal of stammering. It is founded on correct physiological principles, is simple, efficacious, and unattended by pain or inconvenience. Several young persons have, in my presence, been brought to him for the

first time; some of them could not utter a sentence, however short, without hesitation and frightful contortion of the features. In less than half an hour, by following Mr. Hunt's instructions, they have been able to speak and to read continuously, long passages without difficulty. Some of these individuals had previously been subjected to painful and unwarrantable incisions, and had been left with their palates horribly mutilated, hesitating in their speech, and stuttering as before."

"ROBERT LISTON."

"5, Clifford Street, March 1, 1842."

About this time it curiously happened that Francis, when he shot at Her Majesty, was witnessed by Pearson, and had he been able to give the alarm, the danger might have been averted.

The Times, of June 25, 1842, remarks, "It will be recollected that a lad, named Pearson, one of the persons who witnessed the treasonable attempt upon the Queen's life on the Sunday afternoon, was afflicted with so inveterate a habit of stammering as to be unable even to give an alarm. He has, we are informed, by means of a new process of cure, obtained the power of perfect articulation; the hesitation, which before rendered him scarcely intelligible, even when not excited, having entirely disappeared."

So completely does the valued opinion of Robert Chambers,* represent the facts of the case, that I quote the greater portion of this article.

"I have been taken by a friend to see stammering cured by Mr. Hunt. Though a matter in which a patrimonial interest is concerned, I feel tempted, by the interesting nature of what I saw, to make public allusion to Mr. Hunt's

^{*} Chambers' Edinburgh Journal, April 10, 1847.

system. Two young men were in attendance, both grievously afflicted with stammering, and both new cases. One was asked to sit down, and Mr. Hunt then addressed a few questions to him, on which he made the usual wretched attempts to answer. This young man had no recollection of ever speaking fluently. His attempts to read were equally miserable failures. Mr. Hunt then explained to him, in simple terms, the physiological and moral causes of stammering, and gave him a few very intelligible directions for the regulation of the mouth, tongue, respiration, and the part of the chest to speak from. The youth was soon able to pronounce sentences, and also to read with considerable readiness. The other youth was then put through a similar series of lessons, and in an equally short time the comparatively perfect use of the organs was attained in his case. On a subsequent visit, I saw a girl who stammered and hesitated in an extraordinary manner, restored to a common style of speech in less than twenty minutes. These, however, are not cures. A complete victory over the bad habit can only be the work of time. There is no mystery whatever in the plan. It is merely replacing nature upon her pivot, from which accident or bad habit had thrown her. What the instructor does is but a small part of the cure. The greater part is the work of the pupil, fully obeying the rules, and persevering in them, till a new habit has been acquired. Most persons, I conceive, would not be safe from a relapse under carelessness for many months, and individuals of weak will might fail altogether.

"The exhibition is a most interesting one, creating that peculiar satisfactory feeling which we experience when the triumph of nature over error is asserted. Yet, as if to make good the rule that all benefits to humanity must come

through the sufferings of individuals, Mr. Hunt has been subjected to persecution on account of his practice. It was discovered that stammering ought to be regarded as a disease, and therefore treated only by qualified medical men; on this ground Mr. Hunt was publicly denounced as a quack. It would be as reasonable to demand that a dancing-master, who substitutes graceful for awkward walking, or an elocutionist, who extirpates patois from the tones of the voice, should have a medical diploma. A beautiful thing it would be, indeed, for the resolver of this difficulty to go to a faculty altogether ignorant of the subject, and study their mysteries, which have nothing to do with it. and nine-tenths of which are now under a strong suspicion of being mere delusion, before he could be allowed to make use of an invention of his own, the benefits of which are palpable."

The following is from the pen of a writer of high reputation, viz:—Mr. John Forster, of the *Examiner*, the well known biographer, of Goldsmith.*

"A prospectus is before us, issued by Mr. Hunt, on the subject of impediments of speech, and the possibility of their easy and certain removal, without any kind of surgical intervention, which we think of sufficient interest to bring under notice in this place. Struck by the announcement, and by a remark of the late Mr. Liston, among the testimonials quoted, we have sought and obtained an opportunity of witnessing the process adopted by Mr. Hunt. We have no hesitation in expressing a most favourable opinion of Mr. iTunt's process. Based upon clear and intelligible principles it has the merit of singular simplicity. Mr. Hunt explain to his pupils the anatomical construction of the organs by

^{*} From the Examiner, of March 2, 1850.

which the voice is produced, points out the different causes of stuttering, and teaches how an easy utterance may be obtained by removal of the cause that obstructs it in the particular case. There is nothing difficult to understand, or that the least intelligent may not readily seize, and instantly act upon. When we can discover what has induced a habit contrary to nature, we are surprised to see how easily nature resumes what she might seem so completely to have lost. Whether or not she may be able to keep it depends on other considerations. In the case we had the pleasure to see tried, a young man, whose unavailing attempts to read a line of verse had been quite frightful to witness, was enabled by something less than an hour's instruction, to read the whole of 'Gray's Elegy' with tolerable ease. Nor had we the least doubt that perseverance in the instructions given would eventually make the cure complete. But that this perseverance would be necessary, even to the point of incessant and uninterrupted practice for a very considerable time, we thought not less clear. Habit must be conquered by habit. With this proviso of hearty and laborious co-operation on the sufferer's own side, we believe that a very ingenious and intellient gentleman has really discovered an efficacious cure for a most distressing defect, and we are happy to take this opportunity of saving so."

The number of pupils whom my father had relieved at last became very numerous, and many were anxious to express their gratitude to the benefactor who had rescued them from what must always have been a barrier to their success in life. From various notices which appeared at the time, the following is extracted from the *Literary Gazette*, February 24, 1849.

"The cure of stammering by Mr. Hunt has so often commanded our special consideration, that we are gratified to find the success of his simple and efficacious system (almost without a failure, as we have witnessed for a number of years) is in the course of being marked by a public testimonial from a grateful band of the pupils he has taught to relieve themselves from these painful embarrassments, and enabled to take very different position in life from those which such impediments imposed."

This gratifying tribute is an excellent likeness, and affectionately prized by his family and friends, and is a lasting memorial of his services to his fellow creatures. It is thus recorded in the Catalogue of the Exhibition of the Royal Academy for 1849.

"No. 1336. Marble bust of Thomas Hunt, Esq., author of the system for the Cure of Stammering. Subscribed for, and presented to him, by his pupils, in testimony of his services during a period of twenty-two years.

"Joseph Durham."

Ardently pursuing his task, Mr. Hunt, at the close of his London sojourn, in 1851, left for Dorsetshire, when alas! in the midst of health and joyous expectations, the strong man was struck down, and suddenly removed from his sphere of usefulness, as is recorded in the subjoined obituary.

"Obituary of Eminent Persons," in the Illustrated London News, August 23, 1851.

"Thomas Hunt.—After one week of severe illness, died at Godlingstone, near Swanage, on Monday last, the 18th inst., Thomas Hunt, Esq., so long and so justly held in high esteem for his skill in the cure of stammering. During some twenty-five years of Mr. Hunt's practice, a great number have been benefited by his care, and very many

have to be grateful to him for rescuing them, not only from the mortification and distress of a painful disorder (for such it is), but for rendering them eligible to undertake higher stations in trade, the army and navy, all the liberal professions, and even in the legislature. His system was simply to teach the sufferers, by the plainest common-sense direction, the means of restoring nature to its functions. which were perverted and counteracted by evil habits, or the curious infection of involuntary imitation. Mr. Hunt held, and truly held, that not one case in fifty was the consequence of deficient or mal-organization; and he sternly and perseveringly eschewed the knife. In many cases the effect of a single lesson was so remarkable as to appear like magic, converting the convulsive stutterer from distressing unintelligibility into freedom of voice, distinctness of utterance, and correctness of pronunciation. The pupils and the witnesses of such an hours' change were alike astonished by the obvious process, which only required a degree of moderate attention to confirm for ever.

"Mr. Hunt was of a good Dorsetshire family, many of whom were connected with the Church. He was educated at Cambridge, but circumstances led to his choice of farming instead of taking degrees. His devotedness to his one great pursuit did not prevent him from cultivating, as a distinguished agriculturist, a large farm in Dorsetshire, where he was as much respected in that sphere as he was generally esteemed for his peculiar talent in what may be termed professional life. A widow and family of eight children are left to lament his loss."

An extract from the speech of the Right Hon. the Earl of Carlisle, K.G., at the General Anniversary Meeting of the Royal Society of Literature, 1852, also records the same melancholy event.

"The Society," said his Lordship, the president, "has lost during the year, Mr. Thomas Hunt, who, elucated at Cambridge, and intended for the Church, found himself compelled to devote the energies of his whole life, if not to a very aspiring, at least to a most considerate aim of benevolence—the relief of the distress occasioned by stammering. I learn, from authority of high professional eminence, as well as from the attachment of his personal friends, that his mode of treatment was attended with the most distinguished success, and that to the poor especially he was signally liberal and kind as an instructor."

Mr. Hunt's death appeared to be the signal for the revival of competition in the walk he had occupied, to the exclusion of the advocates for surgical operations and pretenders. The notorious and the obscure rushed forward, and anonymous books, pamphlets, and advertisements appealed to the public, with every assertion of infallibility. The public was thus speedily besieged by a corps of resolute curers of stammering, widely differing from each other as to the nature of the affection. But if there be wisdom in the multiplicity of judges, there is distraction in the multiplicity of counsellors. Some, mere teachers of languages, fancied themselves able to cope with the sometimes intricate causes which produce this affection; others not nearly so qualified were still more pretentious.

"On his death a host of pretenders sprang up, all, of course, professing his system; and all, as far as I have ever heard (and Heaven knows I have had cause to hear enough), failing, and ducking under again into their native mud.

"One man, a Wesleyan deacon, or some such functionary, used old Mr. Hunt's testimonials, boldly announced himself his successor, and received, without a word of explanation, inquirers and pupils who came to seek him.

"This was a 'pretty sharp state of business,' as our transatlantic brethren say; and one is puzzled to guess whether (and if so in what terms) he related his 'experiences and exercises' on the subject to his class leaders or other father-confessors. But probably he had arrived at that state of sinless perfection, boasted of by some of his sect, in which such legal and carnal distinctions as honesty and dishonesty vanish before the spiritual illuminations of the utterly renewed man. Whether he practises now or not, I neither know nor care. I suppose he has gone the way of other pretenders."*

*Fraser's Magazine, July, 1859.

APPENDIX B.

Hints to Stammerers.*

The following advice to stutterers and stammerers is so valuable that I have thought it advisable to print the extract entire.

"And now one word as to Dr. Hunt, son of the worthy old Dorsetshire gentleman, the author of the book mentioned at the head of this article. I could say very much in his praise which he would not care to have said, or the readers of Fraser to hear. But as to his power of curing the average of stammerers, I can and do say this—that I never have yet seen him fail where as much attention was given as a schoolboy gives to his lessons. Of course the very condition of the cure—the conscious use of the organs of speechmakes it depend on the power of self-observation, on the attention, on the determination, on the general intellectual power, in fact, of the patient; and a stupid or volatile lad will give weary work. Yet I never have seen even such go away unrelieved. For nature, plastic and kind, slips willingly into the new and yet original groove, and becomes what she was meant all along to be; and though to be conscious of the cause of every articulate sound which is made,

* Extracted from an article entitled "The Irrationale of Speech, by a Minute Philosopher, C.K." being a review of the author's work, "A Manual of the Philosophy of Voice and Speech," and "The Unspeakable, or Life and Adventures of a Stammerer." See Fraser's Magazine, for July, 1859.

even in a short sentence, is a physical impossibility, yet a general watchfulness and attention to certain broad rules enable her, as she always is inclined to do, to do right on the whole. For after all, right is pleasanter than wrong, and health more natural than disease; and the proper use of any organ, when once the habit is established, being in harmony with that of all other organs, and with the whole universe itself, slips on noiselessly, it knows not how, and the old bad habit of years dies out in a month, like the tricks which a child learns one day to forget the next."

"But, over and above what Mr. Hunt or any other man can teach; stammerers, and those who have been stammerers need above all men to keep up that mentem sanam in corpore sano, which is now-a-days called somewhat offensively, muscular Christianity—a term worthy of a puling and enervated generation of thinkers, who prove their own unhealthiness by their contemptuous surprise at any praise of that health which ought to be the normal condition of the whole human race."

"But whosoever can afford an enervated body and an abject character, the stammerer cannot. With him it is a question of life and death. He must make a man of himself, or baliable to his tormentor to the last."

"Let him, therefore, eschew all base perturbations of mind; all cowardice, servility, meanness, vanity, and hankering after admiration; for these all will make many a man, by a just judgment, stammer on the spot. Let him, for the same reason, eschew all anger, peevishness, haste, even pardonable eagerness. In a word, let him eschew the root of all evil, selfishness and self-seeking; for he will surely find that whensoever he begins thinking about himself, then is the dumb devil of stammering at his elbow. Let him eschew, too, all superstition, whether of that abject kind which

fancies that it can please God by a starved body and a hang-dog visage, which pretends to be afraid to look mankind in the face, or of that more openly self-conceited kind which upsets the balance of the reason by hysterical raptures and self-glorifying assumptions. Let him eschew lastly, all which can weaken either nerves of digestion; all sexual excesses, all intemperance in drink or in food, whether gross or effeminate, remembering that it is as easy to be unwhole-somely gluttonous over hot slops and cold ices as over beef and beer."

"Let him avoid those same hot slops (to go on with the corpus sanum), and all else which will injure his wind and his digestion, and let him betake himself to all manly exercises which will put him into wind, and keep him in it. Let him, if he can, ride, and ride hard, remembering that (so does horse exercise expand the lungs and oxygenate the blood) there has been at least one frightful stammerer ere now who spoke perfectly plainly as long as he was in the saddle. Let him play rackets and fives, row, and box; for all these amusements strengthen those muscles of the chest and abdomen which are certain to be in his case weak. Above all, let him box; for so will 'the noble art of self-defence; become to him over and above a healing art. If he doubt this assertion, let him (or, indeed, any narrow-chested porer over desks) hit out right and left for five minutes at a point on the wall as high as his own face (hitting, of course, not from the elbow, like a woman, but from the loin, like a man, and keeping his breath during the exercise as long as he can), and he will soon become aware of his weak point by a severe pain in the epigastric region, in the same spot which pains him after a convulsion of stammering. Then let him try boxing regularly, daily; and he will find that it teaches him to look a man not merely in the face, but in the very eye's core; to keep his chest expanded, his lungs full of air; to be calm and steady under excitement; and lastly, to use all those muscles of the torso on which deep and healthy respiration depends. And let him, now in these very days, join a rifle-club, and learn in it to carry himself with the erect and noble port which is all but peculiar to the soldier, but ought to be the common habit of every man; let him learn to march; and more, to trot under arms without losing breath; and by such means make himself an active, healthy, and valiant man."

"Meanwhile, let him learn again the art of speaking; and having learnt, think before he speaks, and say his say calmly, with self-respect, as a mon who does not talk at random, and has a right to a courteous answer. Let him fix in his mind that there is nothing on earth to be ashamed of, save doing wrong, and no being to be feared save Almighty God; and so go on making the best of the body and the soul which Heaven has given him, and I will warrant that in a few months his old misery of stammering will lie behind him, as an ugly and all but impossible dream when one awakes in the morning."



APPENDIX C.

The publishing of testimonials has always been a question vexata. That it is extensively abused in every branch of enterprise, and is equally the resort of truth and honesty, and of falsehood and fraud, is undeniable; but the apology, if any be necessary, is the great difficulty of obtaining, by other means, a public hearing of any new discovery, so as to entitle it to public consideration. This mode of producing primâ facie evidence in favour of any new theory, is especially requisite in cases, when the discoverer has left the beaten track, and having struck out a path for himself, comes into collision with "vested interests," and is consequently attacked and obstructed in his onward march by interested parties. To confound the obstructors, he is compelled, in self-defence, to vindicate his theory by showing the results Little or no importance is to be attached to anonymous testimonials, when, however, the most eminent medical practitioners, like professors Liston, Fergusson, and Forbes, and literary characters like Kingsley, Robert Chambers, John Forster, and many others, disregarding the odium they may incur, bear public witness as to the simplicity and efficacy of the system I pursue, I submit that the evidence produced is sufficiently strong to entitle me to public confidence, It is with this view-bearing in mind the adage, testimonia ponderanda sunt, non numeranda—that the following testimonials, selected from a host of similar ones in my possession, are submitted to the public.

TESTIMONIALS.

The first letter is from a gentleman so well known and appreciated by the public generally, that I need only mention that it is from the pen of the author of Yeast, Alton Locke, Hypatia, Westward Ho! Glaucus, Two Years Ago, &c., &c., and I am convinced it must carry that weight which it deserves. Such a testimony is in itself surely sufficient to remove all scepticism; and sufferers who disbelieve in the cure, will owe much to such an authority for removing their doubts and misgivings on the subject.

"Eversley Rectory, March, 1856.

"My dear sir,—I have waited till I had something worth saying before I wrote to you. At first I had various small relapses and failures, which put me out of heart: but I must tell you now that all my friends are quite surprised and delighted with the change in my speech. I have gone through many trying evenings without stammering a word; and everwhen, coming home tired and excited, I broke down a little, I have always been able to recover myself before any spasm came on. If I fail now, it will be only from my own neglect of your simple rules, for which I thank you with all my heart.

"Three things gave me confidence in you at our first interview:—First, I saw that you really understood the mental excitants of the disease. Secondly, that you did not (as an empirick would) take for granted the symptoms which the disease had produced, but knew them to be various and ever varying, even in the same patient; and therefore carefully examined till you had found out which of the vocal organs was chiefly affected. Thirdly, that you had no panacea, trick, or "dodge" to offer me; (had you done so,

I could not have had confidence in you,) but that your aim was to restore me to a conscious use of the vocal organs, exactly similar to that which the healthy subject employs unconsciously; and so to deliver me from those half-conscious tricks which the stammerer employs as remedies for his complaint: and which (as my experience has taught me) are equally useless and unwholesome. 'To return to nature through art,' seems to be your notion of your work: if so, you must be right and successful also, for it is the great law and aim of all worthy work in this world.

"* * * has given up all his prospects, and gone to Australia, simply on account of his stammering. This had happened while I was in town with you. Had I known you three months before, he might have been saved; and I dare say his story is that of many. I assure you what you have done for me already has been much talked of; and that many have promised me to get you pupils.

"I must not forget to say that, thanks to you, I have been preaching and lecturing extempore, not only without stammering, but with an ease I never felt before.

"Believe me, yours most truly grateful, "James Hunt, Esq., &c. "C. Kingsley."

"Newton Toney, near Warminster, "March 26th. 1857.

"My dear sir,—It is with great pleasure that I send you my testimony of the success of your system for the cure of stammering as instanced in the case of my son.

"I am glad to say that he continues to speak and read without hesitation, and I have every reason to hope that his cure will be quite permanent, as it is now six months since he was under your care.

"I have made your successful treatment known to many

of my friends, and shall continue to use my influence with all whom I know, that have stammering children.

"I beg that you will use my name whenever you wish.
"I am, dear sir, yours truly,

" MARY ANNE KENDLE."

"To Dr. James Hunt."

The following letter is kindly allowed publicity by the writer:—

"Chatham House, Brixton Hill, "September 1st, 1856.

"My dear madam,—In reply to your inquiries respecting Mr. Hunt's treatment for the cure of stammering, I consider that with regard to my daughter's case, he has been completely successful. His mode of treatment, of course must vary occasionally, according to the degree of the pupil's defect in speech—also the time requisite for effecting the complete cure. I consider his plan of treatment to be founded upon the most judicious and scientific principles; and by no means disagreeable to the pupils themselves—to whom he is always most kind and considerate, in every way, making al allowance for the nervousness, &c., which generally attends impediments in the speech.

"I was perfectly satisfied with all the domestic arrangements superintended by Mrs. Hunt, who is most kind and attentive—and I am quite sure that your daughter would be perfectly happy and comfortable with her, as mine was in every respect.

"I have very great pleasure in forwarding this testimonia to you, as I feel that I cannot say too much of Mr. Hunt for his kind and judicious treatment of my daughter, whose case was of long standing, and difficult to overcome.

"I remain, my dear madam,

"Yours obediently,

"SOPHIA Z, MORRIS."

Extract from a letter from Mrs. Simmons, 46, New King-Street, Bath, to the Author, Dated September 4, 1853.

"When I saw my son, I was the most astonished at the great ease and fluency he had acquired, and that too, in so short a time, as from the age of four or five years, he had stammered to a most painful degree. Your mode of treatment has had a most wonderful effect in removing this great hindrance to his future success in life. I shall always feel a great pleasure in answering any inquiries respecting your skill, or kindness of treatment, and pray make whatever use of my name you think proper."

"23, Fenchurch Street, May 3, 1856.

"Dear sir,—It gives me great pleasure to bear testimony to your success in relieving my son from the very painful impediment in his speech, which had been a growing trouble to him up to the time of his first introduction to you in the autumn of last year. He then spoke with much difficulty; and some words he could scarcely say at all.

"I may confidently say the cure has been perfect on your part. I feel very thankful that I was induced, by two eminent medical gentlemen, to consult you, and place the case in your hands; and that the result has been so beneficial to my son, and satisfactory to us all.

"Believe me, dear sir, yours very faithfully,

"Charles Moss."

"JAMES HUNT, Esq."

The following letter, in answer to some inquiries, is kindly allowed publicity by the writer:

"104, Edgeware Road, Paddington, (W.)
"April 15, 1856.

"Dear Sir,—My nephew was under Mr. Hunt's care more than three years since; and although only with him a few

weeks, he returned home speaking as fluently as any boy of his age. He was then about ten years old, and had stuttered to a painful degree from his infancy, which produced great contortions of the face, and an entire motion of the muscles of the whole body.

"I am happy to say he continues to speak and read as well as on the day he left.

"If your son stammers badly, I believe Mr. Hunt will consider it necessary that he should reside with him, when the cure is effected in a shorter time, and rendered more certain and permanent. I believe Mr. Hunt considers the earlier (after the pupil is able to read) the case is placed under his care, the more easy and certain is the result. You may rely on every domestic attention being given both by Mr. and Mrs. Hunt.

"I always feel a pleasure in answering any inquiries on the subject; and I am convinced you will be grateful to all who have induced you to procure his assistance and successful practice, which is worthy the admiration of all, and not to be confounded with the 'quack statements' so often forced on the notice of the public.

"I remain, dear sir, yours very truly,
"To H. F."
"D. Sydenham."

"4, Halkin Street West, Belgrave Square, S.W.
"March 21, 1857.

"Dear sir,—When I first applied to you, it was with a very distant hope, indeed, that you could possibly cure me of a defect, which I had inseparably bound up with my nervous system: that I applied to you at all, was the result of reading your very admirable treatise, which satisfied me that if any man living understood the stammerer's very peculiar and artificial state of mind,—that man was yourself.

"The weighty evidence afforded by every page of the trea-

tise that actual experience and not mere theory had dictated the language, encouraged me not only to put myself under your tuition, but at the same time to invest a considerable quantity of faith in the result.

"I have very great pleasure in testifying that that investment has returned me good interest in two ways—first, practically, in putting into my hands a clue to the labyrinth in which for years I had lost myself in exploring; and secondly, a placing before me in a simple and clear manner, the nature of articulation, and the principles necessary to be employed to produce voice; and you very satisfactorily demonstrated, that the vast amount of time and labour I had expended in endeavouring to master my defect, by acquiring a fancied mechanical expertness in utterance, failed at the most critical times; simply from my ignorance of the very first conditions of the science, so that by this very practice—for which you will remember I assumed some credit—I had actually been confirming myself in a bad system.

"Strange to say from once regarding stammering as a great calamity, I am now beginning to look upon it as a real blessing; it has led me to aim at being a correct speaker, without such a stimulant, I should have been all my life what most people are, careless and slovenly in articulation.

"In conclusion I will just add what occurred to me very frequently of late—viz., that to all who speak in public I am convinced your instructions would be of little less value than to the actual stammerer, and although "mumbling clergymen" of the class so graphically described in the *Times* the other day by "Habitans in Sicco" are rare, yet few can be aware how much more powerful and sustained their voices would be, were they to put into practice the principles you teach.

"I am, dear sir, yours faithfully,
"JOSEPH W. BLAKE."

"Cork, 70, South Mall, "April 24, 1857.

"My dear sir,—For the last ten years one of the chief purposes of my life was to overcome a severe impediment in my speech, I have spent months and many hundreds of pounds in this attempt. I have been under the care of nearly every person who professed to cure such affections in Dublin, London, and Paris. So that I believe I have as much experience in this matter as any one in these kingdoms.

"The result of this experience is a clear conviction that you practice the true art of cure. I consider other systems valuable only in so far as they approximate yours, and deleterious inasmuch as they differ from it. And I carnestly and deliberately recommend all fellow-sufferers to place themselves under your care.

"I am, my dear sir, yours very truly,
"John George Mac Carthy."
"James Hunt, Esq., Ph. D.," &c.

The foregoing testimonials were inserted in the third edition of my former work. It is with sincere regret I have to omit the testimonials of two clergymen, whose sons have been snatched away from this world when they were just beginning a noble career. They had shown their strength of mind in conquering their stuttering: and the country has to deplore no two more promising youths than Frederick Dusantoy and George Hamilton.

The following are selected from amongst the most recent testimonies of the value of my services, which I have had the pleasure of receiving:—

"Old!Anchor House, Carmarthern, "July 18th, 1860.

"My dear sir,-Since I left you, I have been gradually

getting better, and if I stutter occasionally, it arises from the want of strict attention to your simple rules. I have spoken in public under some very trying circumstances without any impediment. I must mention one instance: I was excited so much in addressing the audience. that I felt almost too weak to stand, my heart throbbing so strongly that I think it could have been heard half a dozen yards off. But such is the command I have obtained over my vocal organs that even on this trying occasion I spoke without the slightest stuttering. My voice is also greatly improved, having acquired a fulness and compass which I did not hope for.

"My friends and acquaintances are astonished at the ease and fluency with which I now speak, and testify that they never witnessed so complete a cure.

"I feel as if moving in a new world, the great barrier to my success in life having been removed. This gives me new strength and courage to pursue my plans with diligence and perseverance. Words can never express my gratitude for the kind and simple manner which you have relieved me of a most distressing affliction.

"I should like your system to be universally known, and I promise to do all I can to make the world understand the wonderful cures it has wrought.

"I remain, dear sir, yours truly,
"WM. LEWIS."

"DR. JAMES HUNT."

"17, Westbourne Square, "October 20th, 1860.

"My dear sir,—Before I had the pleasure of knowing you I was, at times, utterly unable to articulate words commencing with certain consonants, and consequently, reduced to the necessity of mentally changing the expression I wished to use.

"The absorbing nature of my profession has not permitted me fully to carry out all the directions you have given me for the full development of, and proper control over the vocal organs, but I find that proper attention to the rules you, have given me, enables me to pronounce any word whenever required.

"I have only to add, that I think your excellent system worthy the attention of all who value clear articulation.

"Believe me, my dear sir, yours sincerely,

"E. AGUILAR."

"Dr. James Hunt, F.S.A., F.R.S.L."

"23, Redcross Street, "November 8, 1860.

"Dear sir,—It is with feelings of the deepest gratitude I write these few lines. About two years ago I came to you a very bad stammerer, as bad a case, perhaps, that has come under your notice.

"The first two days I was with you I could not speak one word, not even my own name.

"But now, after having practised your excellent rules, and resided with you at Hastings for a short time, and having had your sound advice on the subject, I have mastered my defect, and have great pleasure to say, I can now speak and read with great satisfaction to myself and to my friends,

"I cannot conclude without expressing my thanks for the great kindness I received both from you and Mrs. Hunt, when at Hastings.

"Make use of my name in any way you think proper, as I shall be most happy to answer any inquiries respecting your skill or kindness of treatment. Hoping you will always prosper,

"I remain, your grateful Pupil,
"F. W. GRAY."

"P.S.—I am just eighteen years of age."

"Wadham College, Oxford, "October 31st, 1860.

"My dear Dr. Hunt,—It is with much pleasure that I send you the results of my own experience of the value of your system. When I first came to you, nearly three years ago, I was much annoyed by stammering, and very sensitive about it. Although mine was not a severe case, it was quite bad enough, and I could not see my way out of it at all. And so my relief was very great, when, after a very short interval, I found that the rules and help which you gave me, so far put the clue into my hands that from that time, and ever since, I have felt convinced that it would be entirely my own fault if the cure was not permanently completed.

"In my opinion, a principal advantage in your system is, that it puts his core so entirely within the power of the pupil, that his own will can always determine the conditions of success. To me this has constituted its chief charm, for it produces in this respect, a feeling of self-reliance, that could not be enjoyed if the completion of cure, or recovery in cases of relapse, by any means necessarily depended on your own external assistance. The first and happiest effect produced by your treatment, is a pleasing consciousness of being no longer the slave, but the master of one's annoyance, stammer as one may.

"And that this has been my happy experience, I can most unhesitatingly assert. To all those who most prize success when it has been attained by persevering exertion, your system must have peculiar attractions, for in it, as everywhere, 'Amat victoria curam.'

"Wishing you all the success that you have placed within the reach of myself and so many others,

"I am, always, dear Dr. Hunt,
"Yours gratefully and affectionately,
"ARTHUR H. HARINGTON."

"Dr. James Hunt."

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OF

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"Mr. Hunt has introduced the results of his own consideration of the questions, espe ially in reference to his professional experience. * * * * A vast repertory of facts and opinions relating to the physical organs of utterance, and of utterance itself, from the lower animantia to man, and of the various questions connected with voice and language. These facts, toe, are curious and useful."

From the Observer.

"The volume is learned, and at the same time instructive and amusing; and as a work which has no parallel in the English language, as well as a work of great value, it can he safely recommended to public notice."

From the News of the World.

"This is the most comprehensive, philosophical, and practical book we have met with upon a subject deeply interesting to many thousands of the British public. The collection attention."

of materials for its development, under all its variety of heads, must have been the labour of many years, and the lucid arrangement of them cannot be praised too highly. We have now, for the first time, the philosophy of voice and speech explained thoroughly, intelligently, and plainly. The nervous system, the organ of hearing, the vocal apparatus, and the manner in which the voice is produced, form the topics of several chapters, wherein a fund of useful knowledge is developed, and suggestions are made of practical utility. The disorders of the voice and defective articulation also receive attention, and are very saisfactorily treated. Considerable space is given to public speaking, and the rules for success therein, a topic which may be studied with advantage, not only by those who aim at public displays, but by those who would arrive at a good style of elocution in domestic life. Dr. Hunt's book is one of great merit throughout, and well deserving of public From the John Bull and Britannia.
"The above-named work wherein

"The above-named work, wherein care, ability, and research abound, we most sincerely hope will stimulate attention to the much neglected art of oral delivery. Mr. Hunt explains simply, and advises practically; but not content, as many are, with merely pointing out error, affords besides the best counsel towards correcting it. In a word, either as a treatise on physical or mental defect or accomplishment, so far as the voice and speech are con--cerned, it is unexceptionably the result of long experience and study, and a complete text book on the subject."

From the Examiner.

"There are many curious details and sensible remarks in Doctor James Hunt's book, on Philosophy of Voice and Speech. The author is well-known as a practitioner to whom many are indebted for the removal of impediments in speech; but his book is not, like so many of its kind, a mere advertisement of his own practice; he is interested in the subject of his special study, and out of his real interest therein, this book arises."

From the Country Gentleman's Journal.

"This volume is rich in new matter, and the Philosophy of Voice and Speech is fully expounded by a learned professor thoroughly competent to undertake the task. By its clearness and compactness, the reader, even of moderate capacity, is enabled to seize a clear idea, and garner in his mind a large store of the subject under discussion. To those unfortunate individuals who stammer out at public meetings that "They are

unaccustomed to address large assemblies," and who pronounce the most miserable moments of their existence as the happiest, this manual is invaluable, and we strongly recommend it to all classes of readers; by its perusal the scholar will add greatly to his fund of information, while the unlearned will be struck with new ideas of philosophy of which he had never previously dreamt.

From the Morning Chronicle.

"Not one professor in a hundred knows anything of the physical composition of the organ whose management he teaches, nor is he aware of the acting causes which contribute to its failure or deficiencies. James Hunt, for many years a practitioner in the cure of impediments of speech has forward to remove this reproach and supply a great existing requirement. In a goodly volume he has placed his experiences before the world, and for the first time we really have an authority upon, not merely impediments and physical obstructions, but upon the voice itself, in its relation to its employand upon the thousands of causes which weaken, deteriorate, and impoverish its powers. confess, on taking up this volume, we were at first a little dismayed; a hurried glance at it seemed to show that it was diffuse-treating of subjects not immediately within the scope of the object proposed, and that instead of a practical inquiry into a question of universal interest, it was a mere medical treatise after all. Lest any of our readers should be led into the same error, we beg to warn them of it in limine. It is true that we have at the outset the chapters on respiration, the nervous system, the organs of hearing, sound, &c.; but in the broad way in which the subject is afterwards treated, these chapters will be found to be absolutely necessary; and it is fair, moreover, to say that, taken separately, they are eminently worthy of perusal, as giving a plain and comprehensive insight in the physical conformation of some of the most delicate organs the human system. The work before us is most valuable, indeed, and in no part more so than in that portion which treats of the organs, which in their turn contribute to the integrity of speech. Here Dr. Hunt gives us much amusing as well as instructive in-As might be expected, formation. Dr. Hunt is great in the chapter on stammering. We commend this chapter to the perusal of persons Altogether Dr. Hunt's afflicted. Manual is an attractive as well as an useful work, and, considering it must have cost not a little labour, has a high claim to the patronage of the public."

From the ATHENEUM.

"Readable and interesting, because the author explains his subject clearly. Has peculiar claim to notice, as the work of a man who has brought study and experience of his life to bear upon a special subject."

From the Morning Star.

"The preparation of such a work was not a task within the scope of many writers, for physiology, philology, and rhetoric, must each be laid under contribution. We can bear willing testimony to the author's general qualifications for the labour he has undertaken, and to the great value of the book."

From the ILLUSTRATED TIMES.

"We do not complain of this superabundance of information, for there is not an uninstructive or uninteresting chapter in the volume. But in giving our readers an account of the work, we feel it necessary to state, that it is not merely a handbook of public speaking, but something more. Viewed without reference to the special utility of the whole to public speakers, Mr. Hunt's Manual can only be spoken of in * * * terms of praise. list of directions for the management of the voice, together with a few oratorical precepts, would have formed but a poor, dry volume. Like everything Mr. Hunt has written, the Philosophy of Voice and Speech abounds in anecdotes. He is never at a loss for popular illustration or an amusing story with which to enliven the subject and engage the The best chapters in Mr. Hunt's book are those directly referring to oratory, and young speakers will find his remarks on the subject very valuable.

From the GLOBE.

"We need scarcely say that on all subjects bearing on the rectification of defects of the voice and speech Mr. Hunt's remarks are worthy of respectful attention, and the present work adds the weight of scientific views to-practical results."

From Chambers' Journal.

"There are many interesting anecdotes, and much practical good advice which is applicable to all"

From the Press.

"The concluding part of the volume is devoted to subjects to which the author has paid special and professional attention—disorders in the organs of voice; defects in articulation, deaf-dumbness, and muteism on the one hand—on the other hand, the cultivation and management of the voice, and the art of elocution. Here the author proves himself to be thoroughly master of his subject—not a mere theorist, but one who has had much practical experience, and speaks with all the authority which that experience gives him. Those especially who are called upon to address public assemblies, whether from the pulpit, at the bar, or in the senate, will do well to consult so judicious an ad-Whatever we may think of Dr. Hunt as a philosopher, we hold it to be undeniable that he is an excellent practical manager of voice and speech."

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"Dr. Hunt's Manual comprehends much more than might have been anticipated from its title. It is, indeed, full of varied matter, of the most important character; not as too many philosophical treatises are—cold and dry, but every page replete with interest. In strongly recommending this book as one which ought to be placed in the library of every association of schoolmasters, we feel sure that we are doing them a service for which they will be grateful."

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A very useful Manual, blending science with simplicity."

From the Literary Gazette.

"We are bound to admit that the Manual is a very entertaining, and in many respects, a very useful book. All sorts of readers will find matter here to interest them."

From Bell's Weekly Messenger.

"This is a very curious work, and one which merits all the attention that can be given to it, and if Dr. Hunt meets with the reward to which he is justly entitled, his book will become as popular as it is creditable to his, patience, his talent, and his research."

Illustrated News of the World.

"This is a thoroughly able work; every thought in it bears the mark of having been tested by experience; and in thus recording his observations and experiments, after many years of professional study of the subject, Dr. James Hunt has conferred an inestimable benefit upon the public in general, and upon all who seek to sway the public by the living voice in particular."

From the Beacon.

* * * He tracks the footsteps of creative power along its line of action, and with a bold hand, lifts the seal of its operations, and discloses to the eye of science the workings of the Almighty in the production of that marvel of nature, "the voice Divine," exercising its loftiest functions in its most impassioned mode. Oratory, no doubt, surpasses music; and to hear good speaking, is the highest intellectual enjoyment of which our natures are capable. Superior intelligence may command the whole of it at a glance; but it is as delightful as astonishing, that we should be able, even by laborious processes, to follow and comprehend it; and that it is light praise) to the ability, energy, and recourses of the author. That he has treated a subject to which the whole experience of his life has been devoted as a labour of love, and that the rules he deduces for the management of the voice are no empirical nostrums, but the plain dictates of much celebrity by his treatment of common sense, resting on an intimate the difficulties of utterance and other scientific knowledge as their founda-impediments of speech, has expounded tion, we might have been sure of from the whole philosophy of the questhe experience and position of so suc- tion in an excellent work, "A Manual cessful a practitioner as Mr. Hunt, and he is fortunate in the possession of a clear, simple style, which is invaluable in a work that lays claim to a popular interest."

From the Era.

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From Fraser's Magazine, July 1859. "A book which should be in the hands, not only of surgeons, but of public singers, schoolmasters, and above all, of preachers."

brought to the level of all is due (no From the Medical Times & Gazette,

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From the Morning Herald.

"The author has collected his materials from the best authorities. The work is one which will interest any one who takes it up. To these interested in the treatment of defects in the vocal organs the information it affords must prove extremely valuable. The chapters on public speaking are at once suggestive and amusing."

From the Morning Post.

"The work before us is a careful epitome of the labours of previous writers It is divided into twenty-oue chapters, each embodying under its proper head all that is essential to the elucidation of the main subject. Dr. Hunt's "Manual" must be considered partly as a professional and partly as a popular composition. In its professional bearings he deals with those parts of the human anatomy immediately involved in the production of healthy and efficient voice He opens the great question of races and languages which during all time must be one of absorbing interest to the scientific philologist. Dr. Hunt has evidently bestowed much care in the

for the elucidat on of this part of his subject. His chapter on the origin of the English language is clear and comprehensive, embodying in a short space the most prominent facts illustrative of the subject."

From the Dorset County Chronicle.

"Mr. Hunt has shown by his researches into a special branch of human physiology what can really be done in scientific combat with the complicated infirmities of speech His present effort transcends in ability all his previous endeavours, which we have had much occasion to praise. And though no longer a neighbour, for we perceive that he has for a time relinquished his romantic marine abode at Swanage, and founded a larger institution at Hastings, the volume before us possesses attractive merits, such as, proceeding from whatever locality, must rivet upon it general attention, and elicit on all hands the acknowledgment that the accomplished author has, indeed, developed the philosophy of his intricate subject, and has been the first to resolve the difficult theories of voice and speech into a practical code of scientific laws"

From the WEEKLY TIMES.

"This is a useful work. It does not pretend to originality, nor advance any views calling for discussion. It is, however, an excellent compilation. All the information relating to the subject of which it treats that could be gleaned from the best authors is collated, arranged in a careful and skilful manner, and where necessary, made comprehensible by notes of the author's very enlarged experience. Nor can it be denied that this subject is a very important

Midland Counties Herald.

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collection of the materials necessary | been exercised in the collection of the materials, and conscientious care and ability in their application. matter is characterised by fulness of exposition, without redundancy, and clearness of arrangement."

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From the Sheffield Independent.

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From the Daily Telegraph.

"Dr. Hunt has published a work of very great utility, and which ought to be in the hands of clergymen, barristers, members of parliament, and all those whose vocations necessitate much public speaking. It will also be found an excellent and instructive volume for those whose immediate duties do not bring them so prominently forward. None of us, however, can say that chance may not, at some time, place us on a platform, and then the study of works of this character will not have been entirely thrown away."

From the Freeman.

"This book professes to be almost entirely a compilation; but it has the merit—in these days none too common-of doing well that which it professes to do. Various topics connected with the Voice and Speech are treated with brevity and clearness, and in respect to scientific details, with commendable accuracy. The subject is one in which all have an interest. Man can never cease to regard with curiosity that gift of language by which he is so highly distinguished, and if the most searching investigation of the organization by which speech is effected still leaves the mysterious power unexplained, yet such knowledge as can be thus acquired is rich in interest and value."

From the Civil Service Gazette.

"Mr. Hunt, who has long devoted himself to the special investigation of human speech, and written learnedly and well upon it, has now produced a very comprehensive volume, which bears evidence of extensive reading and great care, and which, we doubt not, will be accepted by the public as a valuable contribution to the library of useful knowledge."

From the Court Circular.

"Contains a variety of information well arranged, and carefully digested, interspersed with judicious remarks, and possesses more than passing interest. The work will be found of considerable use by any youthful member who is about to make his maiden speech at St. Stephens."

From the Clerical Journal.

"We readily concede this praise to Dr. Hunt—that he has produced a book which may be considered as unique."

From the Leeds Intelligencer

"The author is entitled to all the credit of originality for his selection, arrangement, and the use he makes of his materials, and for applying them in a way in which they were never before brought together in the elucidation of one connected theme. He has also the merit of great research and extensive requirements, and remarkable clearness and

The order in pursuing his subject. The concluding chapter of Dr. Hunt's work is on 'Oratory and Public Speaking,' to the consummation and perfection of which the whole of this able and instructive work may be said to contribute."

From the Brighton Gazette.

"The author has given us principles rather than theories, his aim being rather to advance that which is true than that which is new. is the result of considerable research and careful study; the different branches of the subject are well and clearly arranged, and dove-tailed as it were, very nicely, one into the The earlier chapters which other. are devoted to the elucidation of the physiological nature of voice and sound, are concise, clear, and wellarranged; the author's review of the philosophy of language, and especially of the English vernacular, is fair, practical and instructive; his observations on diseases of the voice and car are valuable, and evidently based on considerable personal knowledge, and his remarks on the cultivation and management of the voice and oratory, and public speaking, merit the most extensive perusal, for the low position of oratory in this country, and especially among those who, by profession, should be orators, or at all events, good public speakers is proverbial.

From the Nottingham Review.

"All who are anxious to make the best use of their vocal organs, will find in the 'Philosophy of Voice and Speech" an invaluable and most instructive companion. The study of it should precede all introductory works on singing and oratory. But those who would not think of listening to the counsel which this volume imparts to singers and orators may perhaps be induced to read it from

consideration of health; we predict for this volume a high position among the standard productions of our national literature."

NOTES AND QUERIES.

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From the British and Foreign Medico-Chirurgical Review.

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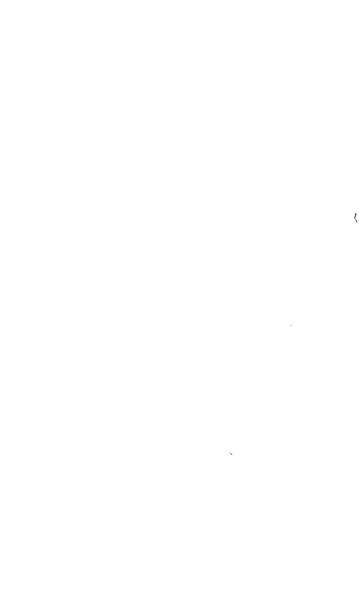
.....Dr. Hunt's account of the voice of animals contains a good summary of what has been observed on the subject, and is well worthy of perusal. Placing ourselves in the position of the general reader, which is the only one we are entitled to assume in respect to a considerable part of the matters treated of, Dr. Hunt's work contains a vast variety of information. which seems to us of a less inaccurate character than that usually to be found in books of such comprehensive scope."

From the Gentleman's Magazine.

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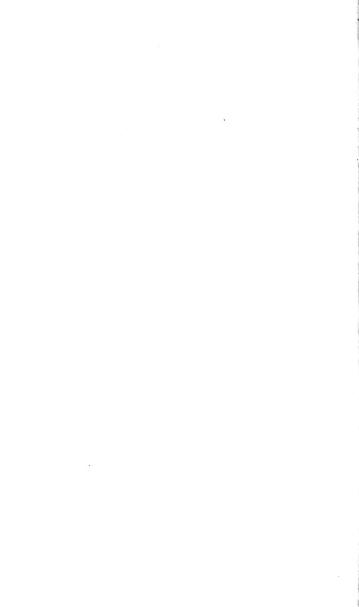
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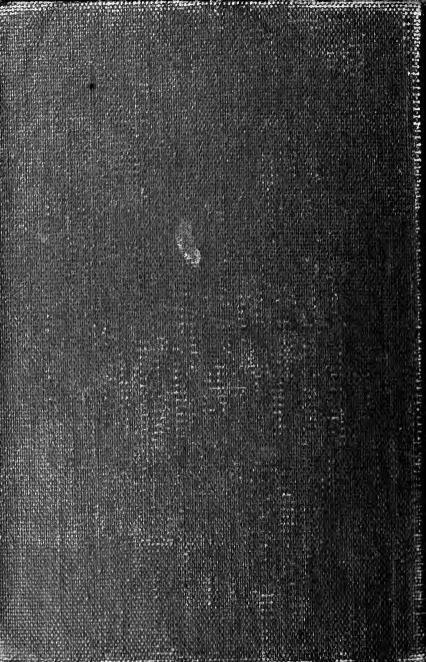






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