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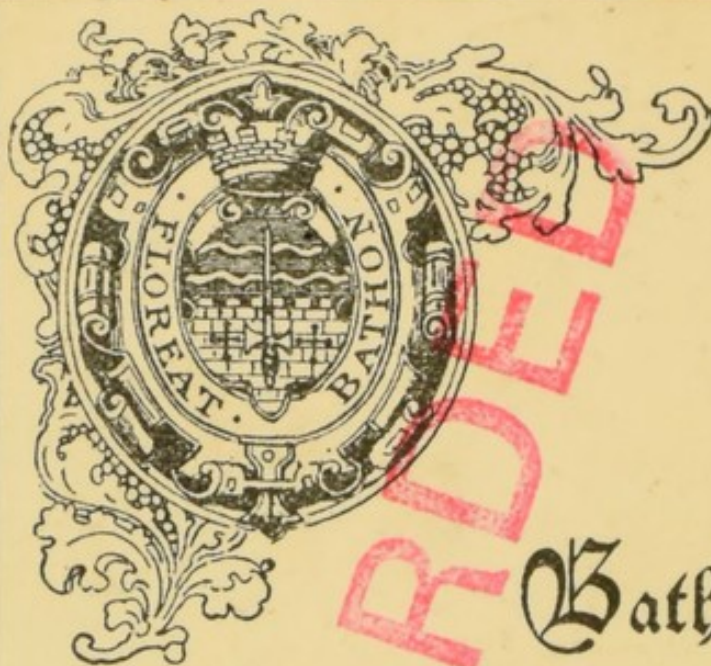
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STAMMERING STUTTERING,
AND
OTHER SPEECH AFFECTIONS.

THE SAVOY PRESS,
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LONDON.

STAMMERING, STUTTERING,

AND

OTHER SPEECH AFFECTIONS:

THEIR CAUSES AND CURE.

Edw. Abbott
BY

W. ABBOTTS, M.D., M.R.C.P., M.R.C.S. LOND.,

*Formerly Physician to the
Hospital for Affections of the Speech and Ear, the Metropolitan
Free Hospital, the North London Hospital for Chest
Diseases, the City Dispensary, the
Finsbury Dispensary, etc.*

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PREFACE.

The following observations upon an interesting, and too often imperfectly understood, class of affections, viz., Stammering, Stuttering, and other Defects of Speech, were originally written for publication in one of the medical journals, but, owing to the length which they gradually assumed as I proceeded with my subject, they became too much extended for the columns of a periodical, and it has therefore been thought desirable to publish them in their present form, in the hope that they may be found of some service in the treatment of disorders hitherto looked upon as almost incurable.

My principal aim has been rather to direct attention to a rational plan of treatment than to produce an elaborate essay upon the subject. "A great book," to use the words of the old Greek writer, is often "a great evil."

Forty years' study of Affections of Speech, and practical experience gained from the observation of thousands of cases, have fully confirmed me in the opinion which I formerly expressed concerning the

advantage of treating each case individually, according to its special peculiarities and requirements, instead of adopting the system followed by quacks, whose pretensions are as great as their ignorance, of dealing with all cases alike without due regard to cause, age, temperament, and other circumstances which, directly, or indirectly, influence the character, intensity, and duration of the affection.

The various modifications of Stammering are so peculiar in their nature and diverse in their origin, that they present different features in almost every case.

As Klencke rightly says,* “Stammering is as chameleon-like as the the cause from which it arises. The most severe stammering frequently appears so mild and insignificant, that it is believed easily remediable, while the impediment in a milder form exhibits itself by violent phenomena. This depends on idiosyncracies.” Seeing that this is the fact, then, how totally opposed it must be to common sense—let alone experience—to attempt to establish a plan of treatment for all cases alike.

I have been frequently much surprised to find persons, even medical men, more or less sceptical as to the curability of Stammering. I may, therefore, state

* *Die Heilung des Stotterns.*

here that after forty years' special experience I have arrived at the conclusion, practically proved by the result of the treatment of cases placed under my care, that in the great majority of cases the impediment can be completely removed, and that in the small remaining number, where, through malformation of the organs of speech or some other individual peculiarity, a complete cure cannot be expected, very considerable improvement of the speech may almost invariably be obtained.

It may be interesting, in connection with the question of curability of Stammering, &c., to mention that six members of the Committee of the Hospital for Affections of the Speech, were gentlemen who have been successfully treated by me for Impediments of Speech. These gentlemen are now actively engaged in the clerical, legal, and other professions requiring considerable fluency of speech.

W. ABBOTTS, M.D.

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"COME I will show thee an affliction unnumbered among this
world's sorrows.

Yet real, and wearisome, and constant, embittering the cup of life.

There be who can think within themselves, and the fire burneth
at their heart,

And eloquence waiteth at their lips, yet they speak not with
their tongue ;

There be whom zeal quickeneth, or slander stirreth to reply,

Or need constraineth to ask, or pity sendeth as her messengers ;

But nervous dread and sensitive shame freeze the current of
their speech,

The mouth is sealed as with lead, a cold weight presseth on the
heart,

The mocking promise of power is once more broken in
performance,

And they stand impotent of words, travailing with unborn
thoughts.

Courage is cowed at the portal, wisdom is widowed of utterance :

He that went to comfort is pitied, he that should rebuke is silent,

And fools who might listen and learn, stand by to look and
laugh ;

While friends, with kinder eyes, wound deeper by compassion,

And thought finding not a vent, smouldereth, gnawing at the
heart,

And the man sinketh in his sphere for lack of empty sounds.

There may be cares and sorrows thou hast not yet considered,

And well may thy soul rejoice in the fair privilege of speech ;

For at every turn to want a word—thou can'st not guess that
want ;

It is as lack of breath or bread, life hath no grief more galling."

M. F. Tupper.

ON STAMMERING AND STUTTERING.

CHAPTER I.

INTRODUCTORY AND GENERAL.

WHEN we consider the immense advances which have been made during the last thirty or forty years in every branch of medical practice, it is a matter of some surprise that with respect to the treatment of affections of speech—I refer here more particularly to stammering and stuttering—scarcely anything new can be found recorded in British or Continental professional periodicals, or in more compendious medical treatises, with the exception of the late Mr. Bishop's work on "Articulate Sounds," etc., which was published in 1851, and some minor contributions upon this subject.*

*A reviewer, writing recently in one of the medical journals, says of the present treatise that "Dr. Abbotts' book is the only work upon the subject of Impediments of Speech written by a qualified medical man for many years. It is calculated to improve our knowledge of a remarkable group of affections, and to take their treatment out of the hands of charlatans and sham doctors, whose ability to cure is as slight as their acquaintance with the anatomy of the important organs of speech."

This relative absence of progress may, I think, be in great measure attributed to the circumstance that the management of this class of disorders has been almost entirely left in the hands of persons unconnected with the medical profession, and always empirical in their treatment, in addition to their being unqualified to practise medicine, as well as ignorant of anatomy and physiology. The history of many other affections, occurring in particular organs presents an analogous condition of things ; take for example, diseases of the eye and ear, in which, so long as they were allowed to be the domain of any unscrupulous, ignorant pretender, the grossest barbarisms of treatment prevailed. It is surely time that an end should be put to such an anomaly, amidst all our acknowledged improvements, as that of allowing unfortunate sufferers from affections of speech, specially requiring skilled and proper treatment, to fall into the hands of persons whose pretensions to knowledge (notwithstanding the frequent assumption of the title of "Doctor," derived from some foreign non-medical diploma) would not be recognised in other branches of the medical art. Out of all these pretenders to ability in the treatment of affections of the speech—men who make up by superfluity of boasting in advertisements for lack of real knowledge of the subject, or even of the anatomy of the important organs concerned—not one holds a genuine medical or surgical qualification, while some base their claims, apparently, upon having been schoolmasters, clergymen, actors, etc.*

*The accomplishments of these quacks would seem as

Referring to this point, Dr. Klencke, author of *Die Störungen des Menschlichen Stimm und Sprachorgans* (The Disorders of the Human Voice and Organs of Speech), and the principal German authority upon this subject, says : "The cure of stammering should not be undertaken merely by teachers, elocutionists, decayed actors, and music-masters, who possess no physiological knowledge, who have no notion of the causes and complications and functional derangements, and who apply only a mechanical method, without reference to individual cases." Some amusing anecdotes could be told of these persons (sometimes self-dubbed "Doctors," sometimes holding a worthless foreign diploma obtained by purchase, without examination, for a few pounds), although unfortunately there is a dark, as well as humorous, side to the story varied as those of the "Admirable Crichton" are said to have been. Some time since my attention was drawn to the following advertisements in the same copy, although in different parts, of a daily paper :—"Stammering, and other defects of speech, cured in six lessons ; consultation free ; no mechanical appliance."—"Singing, Music, Dancing taught ; class or private ; evening parties attended." As the two advertisements emanated from the same *Professor*, one is almost lost in admiration of the many qualities thus displayed in print.

Of another advertiser, I am told that, some years ago, he stated in his advertisements that he had cured himself after thirty years' suffering from an Impediment of Speech. More recently *forty* years are given as the duration ; so that in ten years more, at this ratio of increase, he will have attained his jubilee as a stammerer.

in the disappointment and pecuniary loss inflicted upon the patients who have been induced to put themselves in their hands, in consequence of their deluding promises ; but who might have saved themselves much time, expense, and annoyance if they had first consulted the columns of the official *Medical Register*, or of the *Medical Directory*, to ascertain whether such persons really possessed any medical diplomas. A gentleman, who was formerly a patient of mine, and is now settled in one of the Australian colonies, wrote to tell me, some time ago, that he exposed one of these pseudo-medical gentry, who called himself "Doctor," by reference to the *Medical Directory*, in which, almost needless to say, this person's name did not appear. This individual, when travelling subsequently in the colony where my friend resided, dropped the "Doctor" out of his self-laudatory advertisements in the local newspapers, and coolly styled himself "Reverend," or sometimes "Captain," — "of London, England." This would be very amusing, were it not for the serious nature of the mischief, and injury done to the unfortunate dupes of such a man, who, when in England, modestly (probably from fear of exposure) calls himself plain "Mr."

The first point to which attention is usually directed in describing any affection, is that which concerns its statistics ; in other words, it is of interest to determine whether it is common or rare.

Any ordinary observer will not, I think, hesitate to place stammering and stuttering amongst those disorders of the vocal organs which are very frequently met with ; and I would go still further in affirming, as the result of my observation, corroborated by the experience of other medical practitioners whom I have interrogated on this point, that these impediments of speech, like many other affections which depend in some degree upon the nervous system, have of late years been greatly on the increase, especially in our large towns.

This relatively increased frequency of the nervous class of disorders has been attributed to various circumstances almost inseparable from a heightened state of civilisation. In a condition of savage simplicity, stammering and stuttering are next to unknown ; a fact which we have upon the authority of many travellers in different parts of the world.

My old and esteemed friend, the late Mr. George Catlin, well known by his travels amongst the aboriginal tribes of America, informed me, in answer to my inquiries, that during the whole of his travels in North and South America, he never met and never heard of any one who stammered, although two millions of savages came under his observation. Dr. Livingstone stated that he saw no native who stammered during the long period he spent in Central Africa. Having some time since written to Commander Cameron, R.N., C.B., whose African experience is, of course, most considerable, that gentleman, in his

reply to my letter, fully confirmed Dr. Livingstone's observations. "I do not remember," Commander Cameron wrote, "a single instance of stammering in the natives of the interior."

A patient of mine from the Cape, affected with stammering himself, so that he was more likely to observe closely, says that he has known some two or three cases of stammering amongst the native tribes of South Africa, but in each instance the sufferer had been subjected more or less to the influences and enervating habits of civilised life ; a circumstance which may be quoted in support of the theory which I have just mentioned.

Statements have been made by some writers concerning the proportion of the population affected by these ailments, but, owing to the absence of positive statistics, these statements can merely be of a conjectural and approximative character.

The attempt to arrive at a definite conclusion upon this point has been made on an extensive scale only in Prussia, where, some thirty years ago, it was ascertained from official returns that upwards of twenty-six thousand stammerers existed in a population of about thirteen millions of inhabitants, or one in every five hundred persons ; certainly an alarming ratio, and in excess of that which occurs in this country.

From such data as we have to go by, I should be disposed to set down their occurrence at the rate of about 1 in 1,000 of the whole population of England. Some writers put the estimate much higher—at 2

and even 3 per 1,000 of the population. In some localities these high rates might, however, prevail, particularly if all cases of slight impediment were taken into consideration.

A singular circumstance which has been remarked with respect to the frequency of stammering, is that it is much more common in some neighbourhoods than in others. The reason of this is not apparent, but the fact still remains incontrovertible, as any one may decide for himself if he will take the trouble to compare in this respect the various districts with which he is acquainted.

In some localities it is very rare to meet with persons afflicted with impediments of speech, while in others, of which some parts of Lancashire may be taken as examples, it is not unusual in the course of a single day to meet several persons who suffer from these affections. Stammering is also of very frequent occurrence in Cornwall. In the northern districts of Ireland stammering is a common affection, while in Dublin it is comparatively rare. My attention was first directed to this fact many years ago by the late Sir William Wilde, of Dublin, and it has since been strongly confirmed by Irish patients whom I have had under treatment for impediments of speech. The special correspondent of the *Daily News* in Spain, has made in that journal the interesting statement that it is very rare indeed to meet with a stammerer amongst the Spanish population. He does not, however, attempt to explain this curious fact, which

may perhaps be attributed to the soft, readily-flowing character of the Spanish language. In Italy, another country where the Latin race and tongue exist, stammering is much less frequent than in England. In Germany, on the contrary, stammering is frequent, while in France it is not uncommon to meet stammerers, although in their cases it is sometimes almost difficult to say how much the impediment is due to too great rapidity of utterance. In Austria stammering is so common that the Communal Council of Vienna have lately made arrangements for a specialist to treat cases of children suffering from this affection, and to attend at a central point of the city for that purpose, three times a week. No charge is made to the parents of such children, who must be of the proper age for education in the public schools.

Another peculiarity about impediments of speech is that they are more common among men than women, for which, though various reasons have been suggested, no sufficient explanation has yet been advanced. The proportion of male to female stammerers is probably about 3 to 1. When impediments of speech do occur in females they are generally more difficult to cure than in males, unless the treatment is commenced soon after the affection shows itself. By the term impediments of speech, I mean stammering and stuttering only, and do not include lisping, which is more prevalent in the fair than in the other sex, owing, in many instances, possibly, to the general notion that it imparts a fashionable tone to the

speech. This is as old an error of fashion as any that can be adduced, perhaps, for we find, nearly two thousand years ago, Horace saying, with reference to the common views then prevalent (more probably in irony than in earnest) "*Fæminas verba balba decent.*" *

The late Dr. Graves, of Dublin, mentioned in his Clinical Lectures a singular illustration of this excess of impediments of speech in males as compared with females—viz., a family with which he was acquainted, in which not a single female had been known to suffer from stammering, although that defect of speech had been hereditary for three generations amongst the males of this family. A very similar instance has come under my own observation, in a family residing in the North of England, which furnished three living examples, namely, grandfather, son, and grandson, although not one of their female relatives stammered.

Dr. M'Cormac, writing on this point in 1828, gave a curious and complimentary reason why females stammer less than males—viz., "that they think more, and at an earlier period, than men do."

Stammering and stuttering occur in persons of all temperaments, no temperament appearing to be more or less subject to those affections than others, except that commonly termed the "nervous"; but in such instances the nervousness may often be regarded as

* *Lisping words become women.*

probably the result, and not the cause, of the affection. In fact, I usually find that as the patient acquires greater facility of speech, and more confidence in himself, the nervousness gradually disappears, with the assistance of a little suitable medical treatment.



CHAPTER II.

THE PARTS CONCERNED IN THE PRODUCTION OF VOCAL
SOUNDS AND OF SPEECH.

VOCAL sounds and articulate sounds are two distinct things, being produced at different points, the former in the larynx, the latter in the cavity of the mouth or at the lips.

In addition to these organs, there are others which play an important part in the regulation and perfection of the voice.

One of these is the lungs, whose primary function, Respiration, is so important that another function, namely that of providing (as we may say) material for the voice, and speech, is apt to be overlooked. Although the principal seat of the voice is undoubtedly at the Vocal Ligaments of the larynx, yet the raw material (the air) comes from the lungs. The voice may be defined as audible breath, *i.e.*, air breathed out from the lungs and rendered audible, as well as vocalised, into different sounds, at various parts of its course forwards from the lungs to the lips.

By forcing the breath upwards from the lungs through the larynx, and forwards through the mouth, we get first, at the laryngeal opening, vocal sounds, and secondly, in the passage of the air through the mouth articulate sounds, or speech. This will explain why, in speaking or reading aloud, it is necessary to have a full supply of air in the lungs. If, on the other hand, the lungs are partly empty, and the walls of the chest are consequently collapsed and fallen in, and the muscular division (the diaphragm) between the chest and abdomen drawn upwards, the voice will be necessarily weak and indistinct through want of breath sufficient to sustain the effort of speaking a long sentence and distinctly pronouncing each word of it.

Commencing, then, from the starting-point, the lungs, we may trace the current upwards along the trachea into the larynx, where it becomes vocalised in passing through the narrow aperture called the *Rima Glottidis* (chink of the Glottis) between the *Cordæ Vocales*, or Vocal Ligaments. Thence it passes forwards through the cavity of the mouth, and out between the lips, having, after leaving the vocal cords, acquired an articulate character. The vocal cords, placed at the upper part of the trachea in close relation to certain cartilages, are approximated, separated, lengthened, or shortened by various small muscles grouped around them and regulating their tension, etc.

Other parts—the pharynx, the soft palate, the posterior nasal openings, the tongue, the teeth, and the lips—are further concerned in modifying the sounds,

so as to convert them into articulate sounds, constituting Speech.

The muscles about the larynx are almost beyond control, and act independently and automatically, but they are capable of considerable development and improvement with regard to their perfection of action, by practising the voice, as in singing and reading aloud ; so that a weak voice may be converted into a strong one within a very moderate period provided that the patient undergoes suitable treatment at the same time that he is engaged in developing and improving the voice by such practices. The various sounds, which are produced in the manner which has been thus briefly described, are divided into vowels and consonants.. The difference between these two sets of sounds is that the vowels are continuous tones, produced at the laryngeal passage alone, and modified by the form of the aperture through which they pass out ; whilst consonants are formed by some interruption to the breath as it passes forwards in its passage through the mouth and lips, so that they cannot be properly pronounced except when conjoined with vowel sounds.

CHAPTER III.

THE CAUSES OF STAMMERING AND STUTTERING.

BEFORE enumerating the causes of stammering and stuttering, it will be desirable to define the difference between these two affections, although they may exist in the same individual, as well as separately.

Stammering, then, is inability to pronounce, or difficulty in pronouncing, certain vocal sounds.

Stuttering is the frequent repetition of certain sounds, in fact, a difficulty of enunciation, with more contortion of the facial muscles than in stammering.

The seat of the former affection, stammering, is chiefly at the larynx, or the back part of the mouth ; the latter, stuttering, which is a defective mode of expressing sounds, is situated more anteriorly.

The causes of these affections are very numerous ; and to this circumstance is attributable, in some measure, the frequent want of successful results in their treatment, when the attempt has been made by an incompetent person to treat all forms of these impediments of speech by the same method—a matter which I have already dealt upon in the Preface.

It is, in point of fact, an impossibility to lay down specific rules which can be followed in the management of all cases of stammering and stuttering, without regard to what the individual causes may be.

The different variety of impeded speech may be divided into those arising from surgical, and those arising from medical, causes.

Cases of a surgical nature depend mainly upon malformation or deficient development of the various parts concerned in speech, such as cleft or deficient palate, elongated uvula, enlarged tonsils, absence or malposition of the teeth (articulation is often very difficult when any of the front teeth have been lost), hypertrophy of the tongue, tumours situate in the course of the lingual nerves or within the cavity of the mouth, smallness of the jaw, and hare-lip.

The medical, or general, to which nineteenth-twentieths of the total number of cases of stammering and stuttering are referable, include debility, spasm or paralysis of the laryngeal and lingual muscles, erroneous position of the tongue during speech, excessive salivary secretion, habitually keeping the mouth open, speaking too quickly or in too low a tone, or with the chest insufficiently filled with air, imitation of persons similarly affected, nervousness, etc.

It very frequently happens that the patient's friends refer the commencement of the defective speech to a

severe attack of scarlet fever, measles, or some similar disorder in early childhood ; or to a sudden fright at the same period of life, when the patient would be more sensitive to influences which, at a more advanced age, would have comparatively little effect upon the nervous system.

Mr. Bishop, in his work on "Articulate Sounds," expresses it as his opinion that stammering is most commonly produced when persons endeavour to articulate sounds without putting the vocal cords into vibratory action. In other words, they commence to try to speak before they are prepared to do so ; necessarily leading to confusion and a want of self-confidence.

Although bad health cannot of itself be regarded as a primary cause of impeded speech, it undoubtedly exercises a powerful predisposing effect, and nearly all stammerers are worse when, from any cause, their health and spirits are not so good as is ordinarily the case.

This observation especially holds good when the patient's nervous excitability has been increased by harsh, unkind conduct on the part of persons about him. One of the most difficult cases of stammering that I have ever had under treatment was that of a youth who had suffered from bad health for some time after an attack of scarlet fever, and who had been subjected to unfeeling discipline from his

stepfather. In this case it was necessary to treat the patient for some time upon general principles, in order to improve the condition of his health, before any special measures could be resorted to for the purpose of removing the stammering.

In a similar manner the state of the weather, temperature, etc., have no small influence over the intensity of the affection, this circumstance being doubtless attributable to their indirect connection with the condition of the patients health and spirits the majority of stammerers being worse during wet cold weather, than when the air is more dry and bracing.



CHAPTER IV.

THE TREATMENT OF STAMMERING.

THE treatment of impediments of speech of a surgical nature will, of course, depend upon the extent to which operative surgery may be available.

Where the affection arises from cleft palate, or from hare-lip (a class of cases now much rarer than formerly, owing to improvements in plastic surgery, and the early age at which operative measures are adopted), the appropriate operation for each will furnish the chief means of cure.

Deficient teeth must be replaced by artificial ones, and such teeth as by their position affect the free movements of the tongue must be extracted; while hypertrophy or enlargement of the tongue from any cause should be treated with astringents, and, if requisite, in extreme cases, by surgical means.

It is very seldom, however, that positive permanent benefit can be obtained by means of any operations which have for their object the complete removal or extirpation of any part, such as the tonsils or uvula, although such operations were formerly practised to a considerable extent; in fact, in cases where relief has been said to

follow such measures, it may with great probability be attributed rather to the encouraging effect produced on the patient's mind and spirits by the expectation of benefit, than to the actual results of the operation. My friend, the late Mr. Harvey, touching upon this subject in his work on Throat Affections, wrote—
“Another defect for which removal of the tonsils, although healthy, has been suggested is defective utterance ; how such an expedient for removing that painful and distressing condition could enter into the head of anyone, I cannot conceive. That the removal of these bodies produces a modification of the voice, there is abundant proof ; but what it can have to do with articulate speech, I am wholly at a loss to see. Yet in such affections, one cannot be surprised that any measure holding out a hope of speedy relief should be eagerly grasped at.”

Congenital malformation of the organs of speech, fortunately of rare occurrence, will seldom admit of any permanently successful treatment ; but when the affection depends upon deficient development, art may be brought to bear upon the case, so as to substitute a tolerably good mechanical equivalent for the structures which are absent ; for instance, by the introduction of an artificial palate where the bony structure of the palate is deficient or altogether wanting.

The non-surgical causes of stammering and stuttering constitute a more important division than

the surgical, and include at least nineteen-twentieths of the whole number of cases which have come under my observation during more than thirty years' special experience.

They are as already stated, debility, paralysis or spasm of the muscles of the larynx and tongue, wrong position of the tongue during speaking, excessive secretion of saliva, imitation of other stammerers, speaking too rapidly or in too low a tone, not filling the chest sufficiently with air, keeping the mouth open, various affections of the throat and lungs, and nervousness, etc.

The first of these, debility, is rare as a single cause of stammering, but it is very frequently co-existent with other causes, especially with nervousness, in cases of impeded speech occurring in young subjects. Its treatment will obviously consist in finding out the source of the general or local debility, and remedying it by appropriate measures, such as good living, fresh air, sea-bathing, exercise, and tonics, particularly the preparations of iron, phosphorus, or quinine, and cod-liver oil.

In connection with this point, it may be mentioned that the weak condition of the patient often depends much more upon the co-existence of stammering than might be generally supposed.

This is especially the case with young people who have passed the age of thirteen or fourteen. By

this period the affection of the speech has usually become confirmed, frequently increasing in perceptible degree, and the sufferers begin to feel unlike others of their own age, and to withdraw from social amusements and occupations. A deep, secret brooding over their unfortunate condition begins about this time to acquire a hold upon them, and, while every day, even every hour, reminds them, in some way or another, of their constant defect, can it be a matter of surprise that the health suffers from such a state of things? On the other hand, it would rather be a subject for wonder if the health should not be affected, in a boy or girl of sensitive temperament, rendered more highly sensitive by the self-consciousness of his or her deficiency.

In every case of this kind it may be safely predicted as a certain result, that, if the patient be put under treatment for the impediment of speech, the health will improve as the impediment is gradually removed, so that a few months will usually suffice both to remove the stammering, and to restore the general health.

In these cases, too, as indeed in all cases of stammering, it is of great importance for the patient to have such regular daily exercise as will tend to improve the condition of the chest, and develop the generally deficient capacity of the lungs for air.

Occasionally, stammering from debility may result from insufficient exercise of the parts concerned in

speech, in which case it will be necessary to strengthen the patient's voice by the regular practice of reading aloud for a fixed time every day, according to suitable directions. It sometimes happens that a boy or girl, when at school, is passed over during the reading aloud, or *vivá voce* work, which the other pupils are required to do, so that the unfortunate stammerer thus loses all opportunities of exercising the organs of speech, as afforded to the other pupils, frequently in the course of the day.

When the weakened state of the vocal organs is dependent upon paralysis, which usually happens in adults only, the case naturally assumes a more serious aspect, and the prognosis is commonly unfavourable if the disorder evidences the existence of some considerable affection of the brain and nervous system. The deficient speech in this form of disease is often connected with want of power to utter perfectly any words except monosyllables; but even here, unless some very grave affection of the brain is present, much improvement may be effected by systematic vocal exercise, added to suitable medical treatment, with the judicious employment of electricity or galvanism.

Spasm of the muscles of the larynx and tongue, commonly dependent on chorea or hysteria, occurs principally in young persons, more frequently in females than in males. It may be remedied by the administration of sedatives and tonics, and the treatment usually adopted in cases of nervous affections of this class. The patient should have change of air

and occupation, and regular out-door exercise, and every means should be adopted to improve the general health.

It cannot be too strongly impressed, whether in this or any other form of stammering, upon those who are usually associated with the patient, that kind treatment will often facilitate a cure.

Some of the worst cases of stammering which have come under my notice, during a very long and wide observation, have occurred in persons who, in early life, have been subjected to harsh usage and unfeeling remarks, under the erroneous impression that the habit might be thus eradicated. At the commencement of the present century, when it was considered hardly possible to teach a boy his Latin grammar without a free use of corporal punishment, and when the precept "Spare the rod, and spoil the child" was a ruling axiom of all engaged in education, flogging was actually recommended by a writer upon the subject of stammering as an *infallible* cure for impeded speech. Although we may thankfully say "*Tempora mutantur*," so far as the general cruel treatment of children under the pretence of necessary correction is concerned, there is still reason to fear that punishment and harsh words are too often resorted to, under the fallacious notion that good may thereby be effected in cases of stammering. The contrary result always follows, for the sufferer, becoming disgusted and disheartened, generally lapses into an apathetic, indifferent condition, in

which the impediment becomes worse and more confirmed; while the depressing influence of such systematic; unkind usage must, directly, affect the general health, and, indirectly, exercise an injurious effect on the ailment from which the person especially suffers.

The celebrated Thomas Fuller, who lived in the early part of the seventeenth century, says, in speaking of harsh schoolmasters and the effect of cruel discipline upon children, that they mar more scholars than they make. "Their tyranny," he quaintly writes, "hath caused many tongues to stammer, which spake plain by nature, and whose stuttering at first was nothing else but fear quavering on their speech, at the presence of their master."

Imitation of others who have an impediment in their speech, is a common cause of stammering, which, in such cases, is often very difficult of cure.

In this form of stammering, the imitators gradually fall into the habit which at first they only mimicked, and not unfrequently they are unaware of their own ailment until they suddenly awaken to the consciousness that they cannot speak properly; or their attention is called, by relatives or acquaintances, to the fact of their stammering. I have seen many very bad cases which arose originally from this cause; and in fact, it may be stated, as a rule, that cases of self-acquired stammering are more difficult to treat successfully than those due to what may be termed natural causes, or which are congenital.

Parents and others who have the charge of children, cannot exercise too much vigilance in repressing any attempts by healthy children to imitate those who are unfortunately afflicted with impediments of speech ; for it not only develops a low standard of mind to mock at the misfortunes of others, but it also produces, in this instance, an affection which may continue to be a source of trouble and annoyance during the whole of a person's lifetime. Care should also be taken that young children are not thrown too much in the company of persons who stammer. "Children, when first learning to speak," says Dr. W. B. Carpenter, F.R.S., "form their habits of vocalisation in great degree in accordance with the examples amidst which they are placed."

There is another point to which it is most desirable that parents should direct their attention, viz., checking the disorder at its outset. Young children often fall into an indistinct or faulty mode of articulation, which, by the way, frequently owes its origin to the foolish broken-English sort of language which mothers and nurses seem to regard as the correct thing in speaking to children of tender age. A child's knowledge of a language, even of its mother-tongue, can only be derived from the impressions conveyed to the brain by hearing people speak.

A curious illustration of this occurred some years ago in my practice at the Hospital for Affections of

the Speech and of the Ear. A lad, sixteen years old, was brought to me from Cambridgeshire, for advice concerning his deafness, which had come on after an attack of measles, occurring when he was about four years of age. I was struck by the peculiar childishness of his manner and particularly of his speech, until his mother, who accompanied him, explained the period at which the deafness came on. From the age of four years he had been unable to catch any fresh sounds and, consequently, he had added no new words to his limited vocabulary, so that when he arrived at the age of sixteen he continued to use the same childish words (for the most part monosyllabic) that he spoke years previously. Fortunately, the deafness turned out to be amenable to treatment, and, as the sense of hearing was gradually restored, the latent power of learning speech developed itself, and the patient's language in twelve months' time became more suited to his age and appearance.

If those who have the charge of children will indulge in a jargon in which the *b's*, *m's*, *d's*, *t's*, and other letters are purposely misplaced and used, one for the other, how is it possible for a child to acquire a proper pronunciation.

Excessive secretion from the salivary glands, although not often of itself a primary cause of stammering, is not uncommonly connected with other causes, and is then, of course, very annoying to the sufferer, who attracts attention by his ailment both by his defective

utterance and by spluttering over everything in front of him.

Frequently this excessive accumulation of saliva in the mouth does not depend upon any disordered state of the salivary glands, but upon malposition of the tongue during speech, which then hinders the patient from properly swallowing the saliva, or by undue pressure upon the salivary glands, causing an unusually large flow of saliva.

When the quantity of the salivary secretion is really greater than in health, the secretion should be diminished by the use of gargles of cold water, or of astringent solutions.

The tongue is placed by almost all stammerers in a wrong position during the act of speaking.

Some draw it so far back that the speech becomes not only impeded, but also indistinct. Others throw it up too much towards the roof of the mouth; a third class direct it too far forward, while in some the tongue is curved up at the sides in such a manner as to cause an indraught of air directly the person opens his mouth and begins to speak; others, again, fix it down as if glued to the floor of the mouth.

The tongue is not so necessary to speech as is commonly supposed. In the case of stammerers, indeed, it is apt to become a cause of further impediment, through getting into a wrong position for pronouncing various sounds, as commonly occurs in this affection. A case illustrative of the fact

that a man may lose a large portion of the tongue and yet be able to speak intelligibly, so far as the majority of sounds are concerned, happened within my experience many years ago. A journeyman butcher was standing outside his shop, with a sharp knife held between his teeth after the common fashion of his fraternity, when something suddenly attracted his attention and he turned round quickly. In doing so he slipped and fell down, cutting off a large piece of the front part of his tongue. He was conveyed to the hospital, where the very severe hæmorrhage was stayed, and after a time the wound was thoroughly healed. During the earlier weeks that he was under treatment, absolute silence was enjoined upon him, lest the hæmorrhage, which had been great, should recur. As he progressed towards recovery, no small amount of interest was felt as to how he would manage in speaking, it being generally anticipated that the man would be wholly deficient in articulative power. To everyone's astonishment, however, after getting over the illness he was able to make himself very fairly understood, except where a small number of sounds were concerned.

Some striking instances of the ability to articulate after the removal of a large portion of the tongue are detailed in a work by the late Hon. Edward Twistleton, entitled, "The Tongue not essential to Speech," for a copy of which I was indebted to the Hon. Mr. Twistleton's brother, the late Lord Saye and Sele.

The most remarkable case put on record is that of the "African Confessors." The individuals known by this name were members of a body of Christians living at Tipasa, a city in Mauritania, a Roman Province of Africa, who, in consequence of their refusal to embrace Arian doctrines, were cruelly persecuted by Huneric, King of the Vandals, in 484. Exasperated at their continuing their form of worship Huneric ordered that their tongues should be cut out at the root, and that their right hands should be cut off, which horrible punishment was inflicted upon them publicly in the Forum. Yet, notwithstanding this severe mutilation, Huneric's victims are recorded by eye-witnesses and credible authorities of the period to have spoken intelligibly afterwards. For many centuries this remarkable occurrence was regarded as a miracle, but the phenomenon has been more recently shown by the light of modern science to be capable of explanation on natural grounds.

The habit which many persons have of keeping the mouth partly open instead of compressing the lips together, so as to maintain it closed when they are not engaged in speaking or taking food, certainly increases the affection of stammering where it exists, and according to Mr. George Catlin, the disorder may be actually engendered by this habit.

In the latest edition of his curious and highly-interesting work on this subject, in which he shows by numerous examples and a comparison between savage tribes, like the North American Indians, and civilised

human beings, the necessity and desirability of keeping the mouth closed, except during speaking or taking food, Mr. Catlin expresses his belief that stammering may be frequently traced to "a nervous hesitation and vibration of the lower jaw when brought up from its habitual hanging state to perform its part in articulation."

This is a very ingenious, and, in a few cases, I believe it will be a correct explanation of the production of stammering; it will, however, be evident to the reader that the very large majority of cases can only be attributed to wholly different causes. But, putting this question on one side, the habit of always keeping the mouth partly open is one which is most injurious to the health of the person who indulges in it, and I would recommend everyone to cultivate the practice of keeping the mouth closed except when engaged in eating, drinking, or speaking.

The mouth has its own distinct functions to perform, viz., in connection with eating, drinking, and talking; in other words, to serve as a means of ingress for food and egress for the sound of the voice. The nostrils, on the other hand, with their beautifully designed passages and their various recesses, lined by a highly vascular fibro-mucous membrane, are especially destined for the purposes of smelling (through the numerous branches of the olfactory nerve distributed in the nasal fossæ) and of respiration.

If this last-named fact were generally understood and properly appreciated, we should have a vast diminution

in the number of cases of sore throat, cough, and various serious affections of the lungs. Cases of temporary, often passing into permanent, deafness would also be less present than they are now. Caries and other affections of the teeth would, I believe, be rare, as compared with their present frequency, if people breathed through the nose more, and through the mouth less. Whenever I see anyone evidently suffering from toothache passing along the street, glaring right and left with the air of a badly-used person, and pressing a handkerchief firmly against the mouth to prevent the passage of the slightest portion of air through his lips, I feel disposed to tell him how much better it would have been for him had he only practised breathing through the nose sooner. But then I recollect what Shakespeare wrote,

“There never yet was the philosopher,
That could endure the toothache patiently;”

and I go my way, keeping my mouth as firmly closed as the poor man's sufferings now compel him to keep his.

The reason for the great diminution of cases of chest, throat, and other diseases which might be obtained by the general adoption of the habit of breathing by the nose may be readily explained. When air is drawn into the lungs between the open lips it passes in so quickly that, being of much lower temperature than the lungs, it causes sudden chill, and consequent irritation and inflammation. Corresponding effects may be produced by the contact of cold air

with the throat, producing various forms of sore throat, enlarged tonsils, etc. ; or, passing along the Eustachian tube to the internal ear, the chill may give rise to that form of deficient hearing which is commonly known as throat-deafness.

On the other hand, the risk arising from breathing cold, moist, or foggy air is either obviated or reduced to a minimum by inhaling through the nostrils. The air, passing more gradually towards the lungs, is elevated in temperature by being brought in contact with the warm membrane lining the various nasal passages, while numerous small impurities, such as particles of dust, etc., are detained by the minute, vibratile, hair-like filaments with which the membrane is studded.

To assist in counteracting the habit of keeping the mouth constantly open, it will be found useful to direct the patient to support the drooping chin occasionally by pressing it upwards with the thumb or the hand.

Speaking too quickly arises partly from the erroneous position of the tongue, which has been already referred to, and partly from the nervous anxiety which most stammerers show to get over what they have to say, especially before strangers or a large number of people.

Many persons, who can only be classified as occasional stammerers, can read and speak fluently and with ease when they are alone or with only a few intimate friends, but when they are required to speak to strangers, or to address a considerable audience, they are unable to utter even a few words consecutively and distinctly.

In some of these cases the indistinct pronunciation and impeded speech are due also to a habit of speaking when the chest is only partially filled with air. Any one, whether he be a stammerer or not, may readily convince himself of this fact.

Let him attempt to speak or read after he has become out of breath through walking or running quickly, or when he is sitting down with his head drooped forwards, and his chin rested on the upper part of his chest; and then let him speak, while standing in an upright position, with his head well up, and after he has drawn in a deep inspiration so as to fully expand the chest. The difference in the same individual will often be remarkable; and, in fact, no system of curing impeded speech can succeed without the patient being required to speak out properly after he has thoroughly filled his chest by taking a deep breath.

It would be as rational to expect the sails of a windmill to go round without any wind to propel them, as it would be to expect a person to speak fluently and distinctly when the words come struggling out of his mouth without a good supply of air from the chest, so as to give proper enunciation to the various sounds. The air breathed from the lungs may be regarded as the raw material from which speech is constructed, and when the supply is deficient, articulation must also be defective.

I have been informed that stammering and stuttering are, relatively speaking, uncommon amongst players

upon wind instruments; and supposing this fact, which I received from good authority, to be correct, I should be disposed to attribute it to the frequent habit of fully inflating the lungs before playing, and to breathing out a continuous stream of air from the chest. Stammerers frequently fail to inflate the lungs properly and sufficiently during ordinary respiration. Hence, the lungs being habitually half empty, when the person begins to speak he is compelled to try to compensate for this condition by a series of jerking inspirations, causing spasmodic closure of the *rima glottidis*.

A curious fact which may be observed in nearly all persons who suffer from impediments of speech is that they can pronounce whole sentences without difficulty if they sing or chant the words instead of speaking them in the ordinary manner. This is attributed by Mr. Bishop to the circumstance that when stammerers attempt to speak they do not put the glottis into vibratory action, as they do when they vocalise the breath, and utter a continuous sound in singing. Unfortunately, persons want to speak, and not to sing, in conveying their ideas; but, at any rate, this important point may be learned, that when a person speaks in a steady, continuous tone, and with the chest previously well filled, as is the case in the effort of singing, vocal sounds are more distinctly articulated than is ordinarily the case.*

**Apropos* of this peculiarity in stammerers, the following anecdote is told of the manner in which a ship was saved from the horrors of a mutiny by a stammerer who resorted

Amongst all the various causes of impediments of speech none plays a more important part than nervousness. In at least a third of the whole number of cases which I have observed, nervousness was one of the primary causes of the stammering, and in a large proportion of other cases it was co-existent with other causes.

to this method of expressing himself. The sailors, crowded upon the deck, were angrily declaiming about their grievances to the captain of the vessel, and just at the moment when passion had overcome reason in the minds of the men, a cabin-boy rushed up, gesticulating violently and endeavouring to bring out a sentence about "the c—c—cook." "Confound it, if you can't speak it, sing it," shouted the excited captain, when, to the astonishment of everyone, the lad deliberately and loudly sang—

"The cook and the bucket are overboard,
Overboard, overboard,
The cook and the bucket are overboard,
Fol lol de riddle lol lay."

An instant rush was made to the side of the ship, and boats were lowered to the rescue of the unfortunate cook who had accidentally fallen overboard and was fast drifting away to leeward, holding on to the ship's property. With some difficulty, and after some time, both the cook and the bucket were got on board again ; but the sudden diversion of the crew's attention from their grievances, the excitement at seeing the perilous position of the cook, and the good humour restored to all by his rescue and timely serving out of grog to the men, had the effect of giving a new tone to affairs, and the remainder of the voyage was accomplished without any renewal of the disagreement.

But when nervousness is spoken of, it must be understood that the term is used in its widest sense—not according to the common acceptation of the word, which merely expresses a condition of timidity, or heightened fear.

Many persons are nervous, if we use the expression in its old proper signification—*i.e.*, highly sensitive, or excitable—to whom fear is an unknown sensation; and so strikingly exemplified is the influence of this excitability in some persons, that many who are usually free from such impediments of speech sometimes stammer very badly when they endeavour to make a greater effort than is their ordinary custom in speaking to others.

In some, this nervous stammering shows itself very peculiarly, as in the case of a French gentleman with whom I was acquainted, who, for a considerable period after acquiring a knowledge of the English language, generally stammered very much when he was suddenly required to speak or read aloud in English, while he could talk or read aloud his own language fluently and without hesitation. I have noticed a similiar condition, occasionally, in English people, when endeavouring to hold a conversation in some foreign language with which they are only partially familiar.

This variety of nervous stammering, arising from excitability, and eagerness to speak more eloquently

than ordinarily, is referred to by one of the old poets in the following words :

“ Sometimes to her news of myself to tell,
I go about ; but then, is all my best
Wry words and stammering, or else doltish dumb ;
Say, then, can this but of enchantment come ? ”

Sir Philip Sydney.

Another variety of nervousness, namely, that which arises from dread of censure or ridicule, also offers no small obstacle to cure.

The patient has probably been so long in the habit of mumbling out his words, or of pronouncing them in a hurried, clipped manner, that at first the effort to speak out plainly and clearly appears too much for him, and even after he has been enabled by proper treatment to overcome this difficulty, the tendency to relapse into his former apathetic or timid mode of pronounciation remains evident for some time.

The clipping of words just referred to is very singular in some persons, who will tell you that they “ ’ammer and ’utter,” and adopt a similar artifice to escape the troublesome attempts at the pronounciation of consonants at the beginning of words.

The greatest degree of difficulty of speech is evident in the attempt to pronounce words beginning with certain consonants. Of these the most difficult to pronounce are *b, c, d, f, g, l, m, n, p, r, s,* and *t*, but in cases of confirmed stammering, it will be found

that all, or nearly all, of the consonants give rise to impeded utterance, when they occur at the commencement of words or of syllables. In more decided cases, difficulty will also be experienced in attempting to pronounce vowel sounds, which, ordinarily speaking, are easier of formation than consonants.

Another form of stammering connected with impaired nervous action is generally observed amongst young children, and arises from various visceral and other affections which produce irritation and disturbance of the nervous system, the influence of which is felt in certain functions, sometimes in those of speech, sometimes in those of locomotion, etc.

This irregular nervous action may arise from either centric or excentric causes, namely, from a disordered condition of the nervous centres, or from some abnormal impression conveyed from the stomach, etc., to those centres, through the medium of the nerves distributed in various parts of the body.

This want of power regulating the functions of different organs is most marked in patients suffering from hysteria and chorea. In true chorea there is also not unfrequently a difficulty of swallowing, arising partly from want of control of the muscles which constitute the tongue, partly from want of simultaneous action in the pharyngeal muscles. In these cases the choreic nature of the affection will be strongly marked by the manner in which the patient puts out his tongue, when he is directed to do so. At

first there is a momentary hesitation, from inability to co-ordinate the muscles which throw the tongue forward ; next, the tongue is spasmodically thrust out of the mouth, usually at one side, and after remaining out some little time, it is jerked back into the mouth in the same convulsive manner.

The treatment which should be adopted in this class of cases of stammering, is evidently of a three-fold character :—(1) To remove the exciting causes, if any be traceable, such as worms or other irritating matter in the intestinal canal and other local sources of nervous irritation. (2) By general tonic and sedative remedies, exercise, and change of air, to regulate and control the nervous system ; and (3) To submit the patient to a proper course of exercise and practice of the various sounds.

Close supervision of the patient in this latter respect is more necessary in cases of impeded speech connected with nervousness, than in other forms of this affection ; although it is desirable in every case of stammering or stuttering that the patient should report progress at frequent intervals, where such an arrangement is practicable, for some time even after a cure has been effected, in order that the physician may guard against, or remedy, any tendency to relapse into the old affection.

Nor is this precaution to be regarded as unimportant when we consider that habit, in all long-standing affections, becomes so engrafted into the patient's

constitution that it takes the place of natural function.

Most persons, and even patients themselves (who might be expected to take into consideration the inveteracy of their ailment) overlook the fact that any affection or habit that has acquired a chronic character is not only difficult to remove, but for some time afterwards requires care to prevent its recurrence. In the case of stammering and stuttering, the organs of speech are naturally often left in a somewhat weak condition after the disorder has been cured, and there is consequent liability to relapse if proper care is not taken. A considerable period must, of necessity, pass over before they acquire as complete a firmness of tone as in a person whose speech has been normal during his whole lifetime.

As to the mode of treatment which has been suggested of having recourse to certain movements when speaking, such as throwing the arms forward, stamping the feet, and swaying the body to and fro, I need only remark that they are never productive of any good results. In fact, they are more likely to do harm by fatiguing and annoying the patient; and as stammering consists in a disordered condition of the organs of speech, it is in them that the affection originates, and to them the treatment should be principally directed.

A great deal of nonsense has been talked and written about "methodical gymnastics," "direct and indirect muscular actions," "sympathetic association of ideas and actions," etc., all high-sounding expressions

doubtless, but contributing nothing to the practical knowledge of the subject, and, in fact, so many indications of ignorance on the part of the sham "Professors" and "Doctors," who only invented them for the purpose of throwing dust in the eyes of the sufferers.

One of these quacks tells his pupils that they must hold on to the back of a chair when speaking, and that the muscular action thus called into play will counterbalance the spasmodic tendency to stammer. Another directed a gentleman, who afterwards came to me as a patient, and whose disorder had been much aggravated by absurd treatment, to lie on the floor on his back for a certain period daily, and to read aloud in that position. A third (whose advertisement often appears in the newspapers) gives his pupils an apparatus to wear in their mouths for a certain time every day, whilst reading aloud, and enjoins absolute silence upon them during the rest of the twenty-four hours. Of a fourth, some singular facts were related to me by a patient of mine resident in a northern town. This gentleman informed me that this quack, having charged some twenty pounds for his "infallible remedy," sent a small piece of silver for the sufferer to wear between his teeth when speaking. At his first essay the silver plate slipped back towards his throat, and nearly choked him. But I have said enough of these absurdities, which I only mention by way of warning sufferers against submitting to such ridiculous measures as these quacks resort to.

In recapitulation of the whole subject of impeded speech and its treatment, I may observe that, upon consideration of the numerous and various causes of stammering and stuttering, it must be evident that the treatment must also be varied according to the individual nature of each case, so that, as has been already shown in the preface to this work any attempts which may be made to cure all cases of stammering by the same method must inevitably result in failure.

A peculiar instance of this fact occurred a few years ago. A man whom I had treated gratuitously, in consequence of my having known his family for a long time, and of their reduced circumstances, thought fit to show his gratitude by setting himself up as a stammer-curer (for a wonder he did not dub himself "Doctor," in order to convey the impression that he was an M.D.), and induced numerous people to pay him money, only to find themselves worse by his endeavouring to treat them by a plan which, although well suited to his case, was more or less unfit for others. Two of his dupes came to me afterwards, and much amused me by their account of how this man had tried to deal with all cases that came to him as if they were exactly like his own had been.

It is only by a close investigation of the causes in each case, and by adopting a course of treatment suitable to them, that success can be obtained.

The causes must first be removed by surgical, medical, or moral means, as may be specially in-

licated; and, subsequently, the patient must be trained to speak in a free, clear, and deliberate manner in order to thoroughly eradicate the habit, which may otherwise remain after the cause has been removed. I may mention for the encouragement of sufferers, that many former stammerers whom I know speak better now than the other members of their own families, no doubt for the reason that after having acquired the power of speaking properly they have valued it so highly that they have cultivated and improved it, instead of resting satisfied with mediocrity.

With regard to the often-asked question as to the age at which treatment will probably be attended with the most immediate benefit, I would remark that the earlier the patient is placed under treatment the better. The affection very seldom diminishes, but it very often increases, with progress of time, and the difficulty of removing it is, of course, proportionately increased.

The best period for treatment is that between the ages of seven and sixteen years, but it must be borne in mind that the affection becomes worse in proportion to the length of time that it has existed, and that therefore no time should be lost in checking any tendency to it.

As Dr. Eich, of Pesth, the author of *Die Heilung des Stotter-Uebels* (the Cure of Stammering), observes: "In most cases the infirmity dates from early childhood. The tender infant, not yet exercised in

speaking, finds it difficult to produce certain sounds ; it enunciates them in a faulty manner, and consequently pronounces all words in which they occur equally wrong. With the progress of intelligence, or owing to scoldings, the child now makes an effort to articulate more correctly ; but both the relaxed state of the organs of speech and the forced strain upon them produce further weakness, and stuttering results. The defect must then be remedied according to the cause that occasioned it."

Parents are too much in the habit, sometimes encouraged therein by the opinion of their medical advisers, of falling into the notion that children will "grow out of" impediments of speech. Nothing could be more erroneous than this unfortunate idea ; for a slight difficulty, which might in early childhood be readily checked and removed by the supervision of the parents themselves without the necessity of much professional advice, may—in fact, most probably will—grow into a serious affection.

Of course, when the impediment is strongly developed in very young children the cure is apt to be difficult, both because they have, in some instances, scarcely sufficient intelligence to enable them to understand any directions which may be laid down for them, and because they do not sometimes attach a proper degree of importance to the inestimable advantages which they will derive from a cure.

But in this respect even grown-up persons are occasionally at fault. They show more or less in-

tolerance of, and inattention to, treatment and the regulations laid down for their guidance, and sometimes such impatience to get rid of their chronic affection as to greatly impede the efforts of the physician to remove it.

Before commencing a course of treatment it should, consequently, be impressed upon the patient that it is in his power to facilitate and expedite the cure by closely following the directions of his medical adviser.

I have known instances of patients who, although they had made great progress towards a cure while under medical supervision, partly relapsed into their former condition, owing to their own apathy and neglect, as soon as they were left to themselves. Referring to such patients, Mr. Bishop rightly observed: "In this class of cases, however, as well as in many others, it is not uncommon to find persons too indifferent about the results to trouble themselves with the exercise of rules after they have made themselves masters of them."

It must also be kept in mind that we have not to deal with automatic functions, which, once set in action, continue like the movements of a watch; but with anatomical mechanism, the movements of which are placed under the control of the voluntary system, and subject to irregular impulses.

Upon coming a second time under treatment, such patients immediately regain the lost ground, proving that the relapse is due to their own negligence of the

rules laid down for their guidance, and not to any defect in the method pursued in treating their cases.

In some instances, also, too quick a cure has been accomplished, so that the patients have injudiciously given up treatment before they have fully mastered the details of the method which had produced a successful result, and before they have learned from experience how necessary it is that for a certain period they should guard against relapses.

Besides, some allowance must be made for the fact that, as has been stated by the late Dr. Neil Arnott, in his work entitled "Elements of Physics," "there are some stutterers who, owing to a naturally weak or irregular association of the nervous functions, or to some accident in early life which has strongly effected the nervous system, retained certain defects which no ordinary treatment can wholly correct."

A very large majority of cases of stammering and stuttering can be completely cured, and of the remainder, nearly all may be relieved by the various methods of treatment which have been indicated in the preceding pages, as suited to individual requirements.

In fact, no cases need be regarded as hopeless, excepting the very few which belong to the small class dependent upon malformation or deficiency of the organs of speech, too extensive or too deeply seated for surgical or plastic treatment.

I have sometimes been asked what age a stammerer can reach, and yet be cured. My best answer to this

question, perhaps, is contained in the fact that I once had a patient more than seventy years old, who, after being cured, recommended another patient, over sixty years of age, to come to me, and he was cured, similarly to his friend. Indeed, stammering is remediable at any age subject to the conditions already named.

It is not my intention to lengthen this sketch of the subject by introducing details of cases, especially as I have a great objection even to appear boastful of the results of treatment, but the following furnish such good illustrations of the advantages derivable from proper measures, as well as proof of the curability of impediments of speech after many years' duration, that I will give some particulars concerning them.

A gentleman, between forty and fifty years of age, who had stammered very badly as long as he could remember, came under my treatment some years ago. He had previously, at various times, been treated without any marked results, by different persons under whom he had placed himself.

The causes of the impeded speech in this case were: (1) Too great eagerness in speaking; (2) Speaking with the chest only partially filled with air, which gave rise to (3) Sucking in the breath while speaking; (4) Malposition of the tongue; and (5) Speaking too low and indistinctly, as well as occasionally clipping the words. These causes having been ascertained and remedied, the patient could, in the course of eight weeks, read aloud without much difficulty; after a few

more weeks he could converse with tolerable fluency ; and, within seven months from the commencement of the treatment, he was able to address a meeting of several hundred persons, and to take a leading part in conducting the services of the chapel of which he was a member.

In another case, a gentleman's son, aged sixteen, was placed under my care. The history of the case was by no means encouraging ; several near relatives were troubled with stammering, and in my patient the affection had first shown itself at the age of three or four years, and had gone on increasing in intensity until it seriously interfered with his education, and threatened to bar his entrance into any profession. When I first saw him, the least effort to speak brought on violent convulsive action of the muscles of the neck and face, the latter appearing spasmodically distorted, while it seemed impossible for him to correctly articulate two consecutive syllables. Under suitable medical treatment—nervine sedatives and tonics—and proper exercise of the vocal organs, improvement soon began to be evident, and after some few months he was able to make full progress in education, and he is now an active member of the legal profession.

It would be easy for me to give further instances from my case-books, until the mere record of cases successfully treated occupied several times more space than the present work ; but as my object is (as stated in the preface) to point out the advantages of rationally directed treatment and not to produce a

lengthy treatise, I refrain from giving additional and somewhat tedious details.

The length of time necessary for a cure differs greatly in various individuals.

The age of the patient, the duration of the affection, the constitution, and other circumstances, exercise much influence in this respect. The apparent severity of the affection is no real index to the length of time which may be requisite for effecting a cure. I have frequently found that cases which, at first sight, seemed very serious, were set right in a short period ; while others, again, appearing superficially much slighter in degree, particularly to persons not versed in such matters, necessitated closer attention and longer treatment, owing to organic or other individual peculiarities.

In some, as in the cases just described, almost immediate benefit is perceptible ; in others, considerable perseverance and patience are requisite before satisfactory results can be obtained ; but benefit always results from treatment, and generally a complete cure may be anticipated.

I have had many patients, who, owing to the distance of their residence from London, or some other circumstance which prevented their making the journey were treated entirely by correspondence, or consulted me personally only once or so during the course of treatment ; yet, even with these supposed disadvantages the cure was satisfactorily accomplished.

Indeed, so uniformly successful have been the results of treatment by correspondence, especially during the last fifteen years, that I now generally recommend patients residing at a distance, and occupied by either business or education, to undergo treatment by correspondence entirely, instead of incurring the expense and trouble of a long journey to London for personal consultation. Previous to their commencing the full course of treatment requisite for effecting a cure, I make myself thoroughly acquainted with every important particular by sending a set of questions touching upon all the principal points, and the written answers to these put me as much in possession of all necessary details concerning the individual and special requirements of each case as a personal consultation would have done.



CHAPTER V.

MINOR DEFECTS OF SPEECH.

LISPING, DRAWLING, MUMBLING, AND BURRING.

FOREMOST amongst other forms of imperfect speech which, although often termed minor as contrasted with stammering and stuttering, are yet very troublesome to the person affected, and annoying to listeners, is *lisp*ing.

It consists in inability to properly pronounce the sibilant sounds *s* and *z*, for which *th* or some other sound is substituted, owing to the point of the tongue being brought into contact with the wrong parts of the mouth, instead of being kept in the right position for pronouncing the letters *s* and *z*.

Sometimes the term "lisp" has been applied to the defective pronounciation of other letters. Thus the historian Plutarch described Alcibiades as a lisper, although the difficulty which that famous Greek general had was with the letter *r*, which he pronounced in the same manner as *l*. Against this widening of the term by Plutarch, we must set the definition given by Heschius, that a lisper "is a person who cannot properly pronounce *s*."

Possibly Alcibiades, who was also the leader of the *haut ton* of Athens in his day, was the first to set the fashion of lisping, which, even at our modern period, finds favour with some people. Chaucer, writing 500 years ago, said of the merry friar in the *Canterbury Tales*, that he lisped, "to make his English sweet upon the tongue." Still it sounds childish to an extreme ; and although there may be some who thing it "*thweet*" to listen to the "*lithping*" accents of a fair young lady, the majority of people will regard such a peculiarity of pronunciation from a different point of view.

It is a fault which can very generally be readily set right during the earlier years of life, if parents and others will take only a small amount of trouble in pointing out to children the defects in their speaking, and explaining to them how to pronounce letters properly ; but when it is allowed to go on unchecked until the adult period has been reached, it is often remarkably difficult to remove.

Unlike stammering and stuttering, which are more common in males than in females, lisping is much more frequent amongst the latter ; and, in fact, as I have already hinted, some ladies apparently take pleasure in converting the *s* into *th*, possibly (if I may venture to hint at such a reason) in order to attract attention to themselves by this singularity of speech.*

* Lisping is occasionally very inconvenient, as the following anecdote shows :—"A man who lisped, having bought some pigs, asked a neighbour for the use of a sty for a few days. Said he : "I have juth been purchathing thom swine

Drawling is chiefly due to dwelling too long upon the sounds of the letters called *Liquids*, because they flow into other sounds, and appear to be absorbed by them. The letters in this group are *l*, *m*, *n*, and *r*. This bad habit may be remedied by practising speaking and reading aloud in a manner contrary to that which has degenerated into a drawl.

Mumbling consists in not giving full, clear enunciation to the different sounds, which are consequently slurred over, and indistinctly or only partially pronounced. As in the case of drawling, the treatment where the mouth, palate, etc., are healthy and properly formed, consists in a more vigorous and energetic mode of speech, giving to each sound its distinct pronunciation, without dwelling too long upon it.

Burring is a defective form of speech very common in the Northern counties, chiefly Northumberland and Durham.

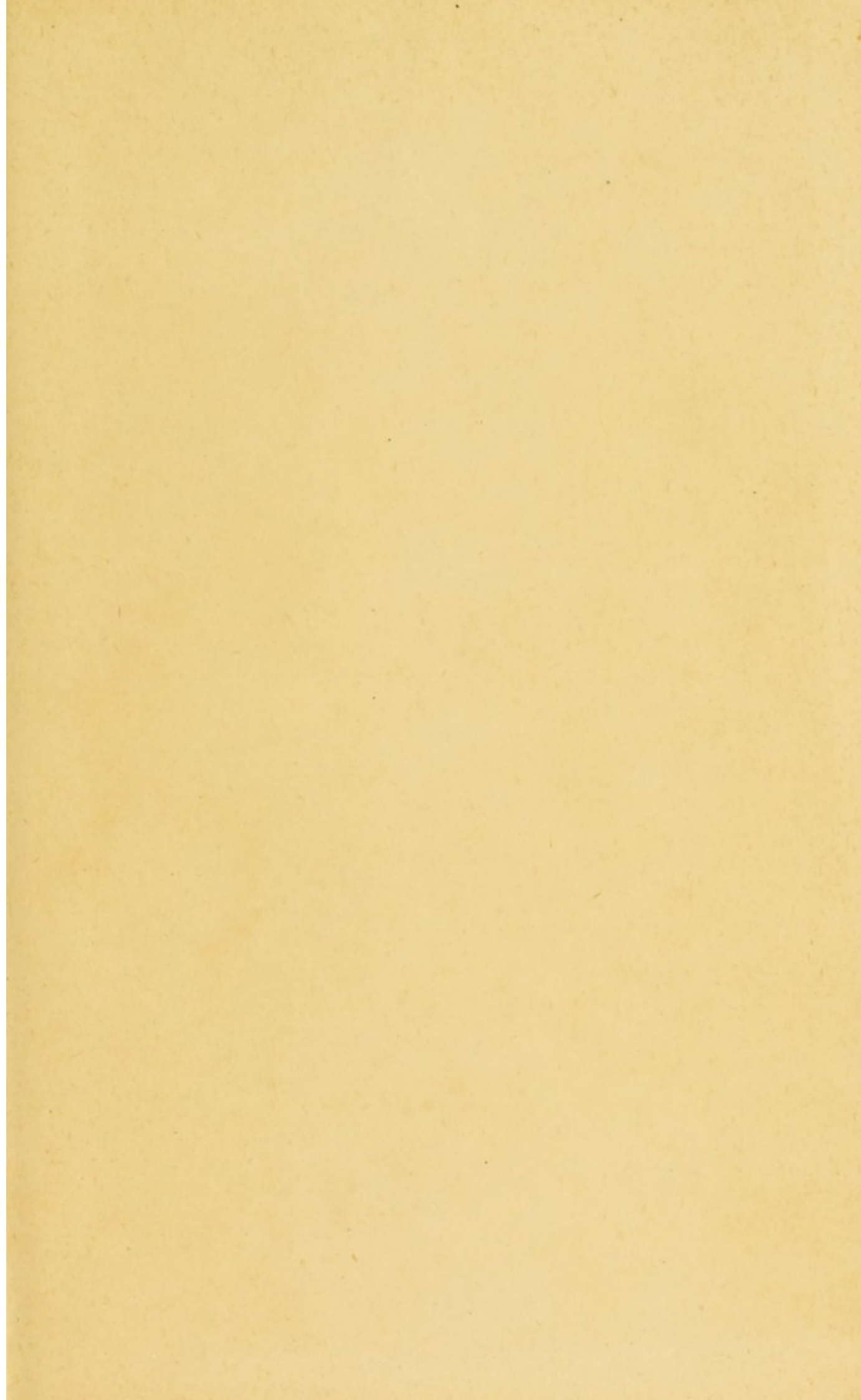
It is singular how strictly this affection is confined to the two counties named. A correspondent recently informed me that, though he had resided more than —two thouth and pigth. I want to put them in your sty till I can fix a plaith for them.” Two thousand pigs?” exclaimed the astonished neighbour, “why, my sty will hardly hold a dozen !” “You don’t underthand me, Mr. Betht. I don’t thay two thouthand pigth, but two thowth and pigth.” “I hear you,” said Mr. Best, “Why, you must be crazy.” “I do not mean two thouthand pigth, but two thouth *and* two pigth.” “Oh, that is what you mean, eh? Well, the sty is at your service in that case.’

twenty years in Cumberland, he never came across a case of "burring" in a "born and bred Cumbrian," while thousands of "burrers" may be met with in Northumberland and Durham.

This affection results from the uvula being set in active vibration during speaking. The same fault is apt to arise in persons who cannot pronounce the letter *r* through want of lingual action. The remedy is obviously, in the former variety of burring, to keep the uvula out of the way by elevating it when talking, and in the second variety to practise the pronunciation of the letter *r*, so as to get a lingual vibration in place of the uvular one.

In this, as in other minor defects of speech, much benefit may often be obtained by the practice of reading aloud, provided it is properly done. I must, however, say a few words of caution against the error which commonly prevails as regards *all* impediments of speech viz., that they can be cured by reading aloud. Unless due care is taken to pronounce properly (which the patient is often unable to do without suitable directions), the practice is much more likely to be productive of harm than of good; while it almost invariably happens that, even in apparently slight cases, self-cure is impossible without some definite rules (adapted to the individual requirements of the case) for the patient's guidance.







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