within. The word, when it does come, is often mispronounced or pronounced in an incoherent manner. If allowed to repeat the sentence, the speaker will pronounce his words perfectly, but usually it requires several consecutive trials. When you ask him a question suddenly, if embarrassed he will stand perfectly transfixed, unable to utter a word. This form or type of stammering has many peculiar and interesting phenomena in connection with it, and often enters into various other combinations. It can be entirely overcome with proper mental training in addition to the general course of treatment.

BOISTEROUS STAMMERING

Contrasted with the silent stammerer we have the boisterous stammerer. This man tangles up his words in a most fearful manner, gasps for breath, utters various hissing and gurgling sounds, and throws himself constantly back and forth, or from side to side, stammers often, contorts his features and muscles, and otherwise makes himself generally obnoxious. While this form of stammering is apparently severe, yet it oftentimes happens that it is very easy to cure.

CONTINUED STAMMERING

While all forms and types of stammering are to a greater or less degree continued, yet there is a distinct form which can be described only under this heading. The continued stammerer is an inveterate stammerer.

He always stammers and stammers always. There is no change in his manner of stammering from one year's end to the other, or even from one day to the next. Unlike the intermittent stammerer, he never experiences spells when he talks easily and when he talks worse. Climatic changes, changes of health, excitement or embarrassment do not enhance the severity of his impediment. He has no particular words or sounds that give him great difficulty, but all words and all sounds bother him equally. He is not insensitive, yet he is not as sensitive as persons of the intermittent class. Such cases of stammering are rare, and I have met comparatively few of them in my experience. However, those I have come in contact with have been entirely successful in overcoming their defect.

THE DESPONDENT OR SORROWFUL STAMMERER

All stammerers are despondent at times, and the majority of them are sorrowful, but there is one class among them always despondent and always sorrowful. They appear to carry around with them the burdens of the whole world. They are moody and whimsical, their spirits rarely rise above a certain level. That level is the point where sorrow can be turned into joy. George Eliot, speaking of the secret sorrow, says, "These things are often unknown to the world, for there is much pain that is quite noiseless. Many an inherited sorrow that has marred a life has been breathed into no human ear." They are not always burdening you with their cares and troubles, but appear

to prefer to suffer in silence. They talk but little, probably because they are unable to talk well. Occasionally you will come upon one who, unlike the others of his type, will continually seek to tell you of all his cares. He rarely, if ever, tells you anything of a cheerful nature, and is not much interested in anything cheerful you may tell him, but talk to him of anything sorrowful and he is at once interested. It reminds him of something he has heard before, but the tale he will tell you will be the more sorrowful of the two. Such persons usually require rigid discipline, and should ever be encouraged in that which is cheerful and never provoked.

INCURABLE FORMS OF STAMMERING

Two gentlemen called upon me at my Institute with a young man, stating that they wished to place him under treatment for stammering. They had been referred to me by one of the hospitals of Detroit. After making numerous inquiries of the father, I addressed my conversation to the boy. I asked him how old he was. He replied that he didn't know. "Why, yes you do," said the father, "you're thirteen," and the boy shook his head. I inferred that the boy was unable to say thirteen, and asked him again to tell me how old he was. He still shook his head and refused to reply. Notwithstanding the requests of his father and my earnest solicitations, nothing could induce the fellow to say thirteen. He would not even make the attempt. I have no doubt but that he could have said it with extreme

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effort, and explained to him that I wished him to try, in order that I might gain a better knowledge of his difficulty, but to no effect. The young man was unusually large of his age, and might have been taken for a boy of eighteen. His father took me into an adjoining room and told me that the boy had a large pocket knife in his possession, and that if I could get him interested in talking about the knife, I could probably gain an idea of his stammering. Strange to say, the only subject the boy would talk upon was the knife, and it was indeed pitiful to listen to his vain efforts at talking. He stammered worse, I think, than any person I had previously come in contact with, and the contortion of his face was extremely painful. I asked him a number of questions regarding his knife, and he endeavored to explain its utility to me. It had a number of blades for special purposes, and he became extremely enthusiastic over its use. I tried to draw him out on other topics, but he would talk of nothing else but his knife. I had not the least hesitation in pronouncing his case an incurable one. Among persons who stammer, as well as among persons who do not stammer, we find people who have not the ordinary amount of intelligence. Such persons, among stammerers, although rare, are incurable.

I discharged a gentleman from my treatment once and pronounced his case an incurable one, not because he had an insufficient amount of intellect, but wholly for the reason of disobedience. He was a man of between 35 and 40 years of age, and one of the most severe cases of stammering you can imagine. During the first ten days of his treatment, he was extremely enthusiastic,

but inclined to be unruly and hard to discipline, which culminated in open disobedience to my instructions. He would rarely, if ever, disobey in my presence, but upon dismissal from the school, would act in direct disobedience to my wishes. One of the principles we enforce in our school during treatment is the total abstinence from the use of tobacco and liquors. While I have no direct knowledge that this man used the latter, still I do know that he smoked constantly, and I have every reason to believe that he was also addicted to the liquor habit. We rarely come across a pupil who will openly disobey our instructions, but the instance I have pointed out is one case that I think can be counted an incurable one. Incurable cases of stammering are very rare, and can be classed almost wholly under the two headings, Disobedience and Lack of Intelligence. Any case of stammering, no matter how severe, is curable with proper treatment, obedience to instructions, and the ordinary amount of intellect to back up the exercises.

CHILD STAMMERING

A paper read before the Michigan State Association of Elocutionists at their annual Convention at Grand Rapids, Mich., December 18, 1897.

I HAVE known of very few child stammerers. In other words, the great majority of so-called stammering children are, correctly speaking, stuttering children.

Stammering takes its root in the early life of the child, in the form of stuttering, from which afterwards develops a mental complication, commonly termed stammering. There is, however, sometimes found an exception to this, inasmuch as I have known a few children who apparently had all the symptoms and conditions of stammering, but in the large majority of cases stammering does not develop until stuttering has first ravaged its victim. The fact that stuttering is largely manifest in so-called stammering children, and stammering more often found in grown persons, is no evidence but that stuttering may also be found in grown persons, and stammering found in children.

The child stutterer does not always develop into a stammering adult, but in nine cases out of ten such is the case, unless something is done in early life to pre-

vent this evolution which often takes place.

I have spoken of stuttering and stammering, and in order to make myself more clearly understood, I will briefly define the difference between these two terms. Webster and others use them as synonyms. It has been found, however, that while one bears a relation to the other, there is, scientifically and technically speaking, a wide difference between them. Stuttering is physical, stammering mental. Stuttering in a sense is to stammering what the lamb is to the sheep, the gosling to the goose, the fawn to the deer. I make this statement in a general way, as there are some cases of stammering to which this comparison will not apply. In such persons of hereditary tendency toward stammering, the first appearance of the defect is in form that of stuttering, which usually rapidly develops into the awful condition of the stammerer. The original defect is planted in the prenatal life of the child and there lies slumbering in embryo, waiting only some mental agitation to arouse and awaken it. The torch once applied the mischief is done. The manifestations at first are in the large majority of cases those of the stutterer, which at this age could be easily smothered, but as the child advances in years its defect grows upon it. The mental agitation increases in proportion to the mental problems of life, which are daily thrust upon it, and thus in contrast, as the rosebud in time unfolds to view the beauty of its hidden loveliness, there develops in the mind of the stammering child as he advances in years those abnormal conditions which lead to the awful tortures of stammering. We know of many cases of stammering, and know of as many attributed causes. One

says his stammering originated from fright, another from sickness, another from mimicry, another from association, another from accident. Nearly every stammerer attributes his stammering to different causes, and yet in the large majority of cases they can all be attributed to one origin. These so-called causes are merely aggravations which serve to awaken that which already existed, but which was dormant. It may have existed as a result of heredity, or it may have taken its origin from an unknown source. At all events, these cases of stammering that are said to have originated from fright, mimicry, association, sickness, and many other causes, are but the external manifestations of an abnormal condition of the mind which had previously existed unmanifested. Anything that affects or agitates the brain of one predisposed to the development of stammering is likely to cause stammering, or rather I should have said stuttering, as I have explained that the large majority of so-called stammerers were in the beginning nothing more nor less than stutterers. Speaking of the child stutterer, it is not by any means difficult to cure, but the child stammerer is not as easily managed.

I have spoken of stammering, of stuttering, and of combined stammering and stuttering. Stuttering when found in grown persons is generally a form which has been acquired. Had it been of hereditary origin, it would no doubt have developed into stammering before the age of manhood. Stuttering is largely physical, and not by any means difficult to cure. We have had several cases of lifelong stutterers who have been entirely cured in

less than two weeks. One of these cases, at this writing, has stood the test of three years, another a year and a half. Such rapid cures, however, are exceptional among cases of stammering, which have usually required a longer period. The difference in the time required to effect a cure in cases of stammering and those of stuttering is accounted for in the following manner: With stuttering we have but the physical to deal with, while with stammering we have both the physical and mental. Stuttering is largely due to a wrong manner of breathing and respiration, and is manifested by the rapid repetition of words and syllables, oftentimes accompanied by convulsive action of the muscles. Establish a correct form of respiration, make the stutterer talk slowly and behave himself, and you have a foundation laid upon which to build the cure. Not so, however, with the stammerer. With him we have added to an abnormal manner of breathing and respiration the mental phase of this difficulty, and thus when we have entirely overcome the former we have left the latter complication to deal with. Since stuttering, which is not by any means difficult to cure, is more often found in children and stammering more often found in adults, it becomes parents to arrest the stuttering habit in their children before the difficulty develops into stammering, with all its mental complications.

Age has but little to do with the chances of recovery in any case of stammering, as much depends upon the application of the pupil to the duties required of him and his aptitude and comprehension. Entirely satisfactory results can rarely be obtained in children less than ten years of age. However, at the age of ten and after-

wards, if the child is intelligent, every vestige of its impediment can be entirely eradicated. Children are imitative, and thus they readily pick up the work of the classes. Quintilian says, "Before all, let the nurses speak properly." The child will hear them first and will shape its word by imitating them. No child should be kept under the influence of a stammering parent. We find in nearly every case where one of the parents stammer, at least one or more of the children are similarly afflicted. Sometimes whole families stammer. I know of one family where father and mother stammer, every one of their children stammer, their grandchildren stammer, and one of their great-grandchildren stammers. If possible, which is rarely the case, the child of the stammering parent should be adopted into another family, where it will not be brought into association with the habit of stammering, until it has passed its fifteenth year. There is then but little danger, as but a small percentage of persons commence to stammer after that age. We might expect the child of stammering parents, which is brought daily in contact with this awful habit, to imitate what it sees. Old Roger Ascham says: "All languages, both learned and mother tongue, are gotten and begotten solely by imitation, for as ye used to hear so ye learn to speak. If ye hear no other ye speak not yourself, and whom ye only hear of them ye only learn." Thus, what can we expect of a child, predisposed as it may be to the development of stammering, surrounded with every persuasive stammering influence and in other ways subjected to the exposure of this contagion? We can only expect that it will stammer, which we find to be the

result in nine cases out of ten. I speak of it as a contagion, from the fact that many of these stammering children would never have stammered but for having been brought into contact with it from association with their parents and otherwise. When only one of the parents stammer, their children oftentimes escape it. Where both parents stammer the doom for their children is inevitable. I have known of several such unfortunate cases and the results have always been the same.

Children who are thought to be disposed to the development of stammering should never be severely punished; they should never be subjected to fright or danger. They should be kept away from any person so afflicted and should be carefully protected from all kinds of sickness accompanied with fevers, such as measles, mumps, scarlet fever, diphtheria, whooping cough, etc. Such forms of sickness, by lowering the vitality of the child and by agitating the brain, are likely to bring to the surface that which lies slumbering in a dormant condition.

The temperament of the child who suffers from either stammering or stuttering is usually an active one. I wish also to say that while nervousness is sometimes associated with stammering, during the child life of the sufferer there is but little nervousness observable. I do not believe the stammerer, as a child, is more nervous than children not thus afflicted. It is probably owing to his stammering that we notice his nervous condition. When he grows to boyhood and becomes sensitive over his infirmity he begins to show signs of nervousness, he feels humiliated over his stammering, is laughed at by

other boys, is pushed aside at every turn, until at last, like a hunted deer, he turns upon his antagonists and tries to defend himself. He finds, however, that he is one against many, and, as is often the case, withdraws himself from every social and pleasurable pastime. As a result of his suffering and of the continued strain from making an exhibition of himself, his nerves become unstrung, he continues to suffer from day to day, from month to month, from year to year, until at last the equilibrium of control is overthrown and his nervousness becomes a part of the man. Thus it is that all persons who stammer are nervous. As a proof of this, we find that when a stammerer is cured his nervousness rapidly disappears. The fear and humiliation of stammering taken from his mind his nerves gradually settle back into a relaxed condition.

I have been asked what I would do providing I had a child who was predisposed to the development of stammering. This question is rather a complex one to answer, from the fact that what I would do other persons might not feel disposed to do. In the first place, a child, whether disposed to the development of stammering or not, should be kept separate and apart from every other person so afflicted. If the parent of the child stammers, and there is no way to separate them, all further advice would be useless and worthless. A stammering child, until its impediment can be corrected, should never be allowed to attend public school, nor any other school where it will be brought into contact with other children. This is beneficial alike to the stammering child and also to its associates with

whom it comes in contact. It is applicable to the stammering child from the fact that a cross teacher and the teasing it may receive from the other children will serve only to aggravate its difficulty and confirm the habit. It is deleterious to any child, whether disposed to stammering or not, to be constantly associated with stammering. Those of you who have a knowledge of child life know that any child hearing another stammer may endeavor to imitate it, and may either acquire the habit or receive a vivid mental impression of what it has heard. Children are great imitators. It is largely through their keen imitative faculties and imaginative mind that so many of them acquire such a store of knowledge at such an early stage of life. Do not allow your child to imitate or mock a stammerer, nor should stammering children be thrown in contact with other children not so afflicted. Never laugh at, tease, nor scold a child because it stammers. A man brought a little boy to me and asked my opinion and advice regarding its impediment. I motioned him into the parlor and requested him to be seated, at the same time giving a chair to the little boy. The child was about seven years of age and a bright, apt little fellow. After talking with the father for some minutes relative to the boy's stammering, I turned and asked the boy his name. Like many children of his age, the boy acted rather timid and seemed inclined to shrink away from my question. He made an effort to speak, but was unable to do so. He stuttered and stammered terribly. "Come," said the father, "spit it out or I will make you." "No you won't," I answered, "the boy

has more sense than you have." I motioned the boy toward me. Fearful of his father's look, and in response to my kind tone, he came and stood between my knees. "Now," said I to the father, "you go into the adjoining room and leave this little fellow to me, and I will tell you when I have talked to him a little while all about his stammering." I sat the little fellow on my knee and told him of all the sights at Belle Isle, of the animals, the monkeys, of a bicycle ride I had taken the day previous, and many other things I thought would interest him. After a while he forgot the reprimand and cross words of his father, and his timid countenance became radiant and smiling. He told me his name, where he lived, how old he was, his little playmate's name at home, and in many other ways entertained me. During this time he stuttered but little. He told me of many little boyish things, and in a pretty little childlike way. I stepped to the sitting-room door and told the father I was now ready for him, and when he put in an appearance the countenance of the child fell and he once more became timid and frightened. I told the boy's father what he should do and severely censured him for his actions and manner. He took my advice rather reluctantly, but whether he applied it or not I do not know. This much, however, I do know, that by a careful hand, a kind heart, and words of advice and caution, the poor little stammering child could have been very much helped, if not entirely cured. The best friend it ever had in the world unfortunately died, and thus I am led to believe the little fellow will grow up and endure all the miseries

and tortures of stammering. When the stammering child is too young to be sent to an institution for training you can do much for it by treating it kindly. If it needs a whipping give it one, if you believe in whipping, but never whip it for stammering. Do not indulge it on account of its stammering nor give it to understand that it is sympathized with in its affliction. Treat it firmly yet kindly, and never grant it a request until it has asked for its want in a careful manner. Many crippled, blind, and otherwise afflicted children are indulged on account of their infirmity. While I know little regarding blind persons or cripples, stammering children should be given to understand that they are in no way privileged on account of their stammering. Do not treat their stammering as indifferent, rather give them to understand that when they stammer they are breaking one of the rules of etiquette; that it is equally as wrong to stammer as not to remove their hats in the parlor; as wrong to stammer as to go to the table with soiled hands and uncombed hair; as wrong to stammer as to answer "no" when they are asked to do an errand. In fact, teach them that to stammer is wrong, but in doing so be careful to advise them as to what is right. Whenever you correct or punish a child for a misdemeanor, tell it of its error, unless it otherwise knows, and advise it of the right. Many parents are indifferent to their children, and stammering children are no exception. They whack them about, give them just so many whippings a week, whether they need them or not, send them from the table when company is present, and otherwise

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neglect them. Whatever you do, don't belittle a child, especially if he is a stammering child. On the contrary, make him your equal, your associate, and by proving your interest and friendship in his welfare you will make him your lifelong friend. If the parents of stammering children would advise their children in a kindly manner, correct them when they make an error, caution them that they must not stammer, and in many other ways treat them with firmness and a kindly spirit, there would be but few stammering men and women during the next generation.

DIAGNOSIS AND TREATMENT

OF

OBSTINATE CASES OF STAMMERING

FEW persons understand how to correctly diagnose a case of stammering. In fact, so little is known of the disease except by a limited few who have made the subject their life study, that I doubt if any of my readers, physicians and teachers included, have ever attempted it. Before a stammerer determines upon a course of treatment, whether under a private tutor or at an institution, he should first take pains to see that his case has been carefully studied and correctly diagnosed. His counselor should know every peculiarity of his infirmity before the first step is taken toward radical treatment. Otherwise he will be in as bad a condition, as far as the chances for his recovery are concerned, as the man who would submit himself to a critical operation for a hidden tumor, allowing his surgeon to cut and hack his body to pieces in a vain endeavor to locate the seat of the trouble. Fortunately, however, contrary to the general rule of treating stammering, the skillful surgeon, before making an incision with his knife, knows well what he is about to do. He has thoroughly studied his patient's trouble and has made a

thorough diagnosis of the case.

This should also be done in every case of stammering where successful treatment is contemplated. There are no fewer than twenty or more entirely different and distinct types of stammering and stuttering, and there is no set plan or code of rules or exercises that will apply to all cases alike. Each case, while treated from a common basis, must also receive individual care and instruction, according to the indications and manifestations apparent. Temperaments are not all alike and dispositions vary. Thus, a treatment, in order to be successful, must not only aim to establish a fixed rule, but will also require to adapt itself to each and every varying case. With a thorough knowledge of the many different types and forms of stammering and stuttering, the reader can, without much trouble, form a correct idea in any case, and after arriving at a conclusion as to the type of stammering we require only a knowledge of the principles and rules required to establish a cure.

We will discuss this latter at the conclusion, and will give our attention now to establishing a knowledge

leading up to the diagnosis of a case.

Let the reader imagine himself with me in the capacity of an instructor to whom Mr. B—— presents himself for consultation and advice. To make the case more interesting I have selected as a subject a man who has called upon me just previous to this writing, and I want you, reader, to come with me into the consultation room, where we will make our investigation and form

our conclusions from which to base the diagnosis of his case.

First, we draw our subject out in conversation. Second, have him read from a book or newspaper. Third, ask him to repeat with us in concert the words and chief obstacles that have proved themselves difficult of utterance for him. We ask him his age, study the manner of action, his ease or uneasiness, his contortions, if any; his respiration, his sitting or standing position, the condition of his health by the appearance of his physique, the tone of the voice, the articulation, the chances or opportunity for physical development, the inclination for using synonyms or for substituting easy words for difficult ones, and thus, by observation and by putting a hundred and one or more questions, we learn all we can about the history of the case.

In answer to my questioning he tells me that his mother and one of his elder brothers stammer. This, of course, would naturally indicate a case of hereditary stammering, but before forming a conclusion we must make a further investigation. He says he did not commence to stammer until after he had passed his tenth year, and states that he is now thirty-two years of age. He has a child (a boy) five years of age, who stammers violently, but who did not commence to stammer until after he had passed his fourth year, up until which time he had talked perfectly. In answer to further inquiries as to the probable cause of his stammering, he says that neither he nor his parents noticed any apparent difficulty in his speech until after he had mimicked a stammerer at the age of ten.

This adds a new phase to the case. The indications point to heredity on one hand and to mimicry on the other. A question naturally arises. Who can say whether the boy would have ever stammered but for his sin of imitation and mockery?

To arrive at a satisfactory answer to the problem, let us determine whether the case be one of stammering or stuttering, which conclusion in itself will point to the

origin or cause.

If upon further investigation we find it to be a case of stammering, we must conclude that its origin is due to heredity; if a case of stuttering, there is a chance that it may be resultant from mimicry.

Stammering takes its origin in a different way from stuttering, the former being purely mental, while the

latter is generally the result of habit.

A condition disposed to the development of stammering can be inherited and transmitted from father to son and from one generation to another, and while this claim is also made for stuttering, the writer has never known of such a case.

Stammering is due to an original physical weakness in that portion of the brain which governs and presides over the faculty of speech,* and differs from stuttering in this, that the latter is due entirely to wrongly formed habits of respiration and an incorrect manner of vocalization.

We must therefore conclude, if we can show that our subject's defect is due to heredity, it is a common

^{*} See footnote on page 27.

case of hereditary stammering, while on the other hand, if shown that his trouble is due to mimicry it would appear as nothing more nor less than a case of simple stuttering.

How shall we proceed to determine whether it be due to mimicry or heredity, upon which decision we

shall base our diagnosis?

In answer to further inquiries he states that he can control himself to a degree in the presence of strangers, but that he stammers badly in the presence of his intimate acquaintances or in talking to the other members of his own household. This is an evidence of stammering. The stammerer can, by exercising his will and summoning up moral bravery, control himself before strangers to a remarkable degree; in fact, in this way he is oftentimes wholly able to conceal his impediment. Peculiar as it may seem, he is apparently unable, however, to talk well in the presence of intimate acquaintances. Klencke, speaking of the difference in manifestations between the stammerer and stutterer, remarks that "The stammerer usually speaks better when he is observed and thus forced to pay attention to himself. The stutterer immediately begins to stutter violently when he is observed."

Before further investigating the case before us, allow me to argue an explanation for the above remarkable circumstance that a large number of stammerers can talk better to strangers than to their intimate acquaintances or relatives. When talking to near friends or to intimate acquaintances the stammerer has nothing to conceal. They know he stammers and there is therefore but little, if any, humiliation in committing such an offense. The will becomes relaxed and with it a relaxation of motive power, followed, as is natural to suppose, by spasmodic action typical of the stammerer. When talking with strangers, before whom the stammerer does not wish to make an exhibition of his infirmity, there is constantly a nervous tension of the mind, an effort toward the generation of will power, and a consequent increase of motive power. Thus follows a temporary better talking, but when relaxation does come the effect is generally depressing.

The labored effort of the stutterer when attempting to talk before strangers is scientifically explained from the fact that the increase of difficulty under such conditions is due to the rapidity of his thought and the rapid succession of new ideas that crowd his brain. The result can be compared to the panic that ensues at a fire in a theater when three or four thousand people attempt to crowd their passage through a four-foot door in their

anxiety to get out.

Let us now return to our subject who, in stating that he stammers but little in the presence of strangers and much in the presence of intimate friends, has wound about himself a supporting evidence leading up to a case of stammering. I have asked him whether he can read aloud without trouble in a room by himself, to which he answers that he cannot always do so. This can be taken as a further evidence of stammering. The stutterer can always read aloud without trouble, providing there is no other person in the room and he is unaware of the presence of listeners. An explanation for this is also embodied in the preceding argument.

His replies to my questions regarding his stammering show considerable contortion of the facial muscles, but unaccompanied by spasmodic action. This would appear as a fourth link in the chain pointing to a case of stammering. The facial contortions of the stammerer are slowly drawn, in which respect they are different to the facial contortions of the stutterer, which usually occur with spasmodic action. The stammerer may distend his mouth like a funnel and keep it in that position, vainly endeavoring the meanwhile to speak. He may drop his head on his chest, toss it back or sideways, or his features may distort to a degree almost beyond recognition. On the other hand he may widely open his mouth in attempting vocal utterance, compress and hold the lips tightly glued together in his efforts to utter closed or explosive consonants, but with all this his actions are in contrast with those of the stutterer, who behaves himself in a more boisterous manner.

In answer to further questioning as to what conditions cause him the greatest difficulty, he tells us that it gives him the greatest difficulty to relate a story or tell of an incident. He was present at the Pullman strike in Chicago, but has never been able to tell what he saw there. This is indicative of a peculiar mental condition found only in the stammerer. The mind, in reaching out for new ideas to graphically portray in words the pictures of the imagination, is drawn away from the careful vigilance necessary to co-ordination and harmonious action of speech, and thus in this way the concentrated effort of the will to speak properly is weakened. The stammerer who is able with care and

watchfulness to control his speech is oftentimes overthrown when this vigilance is withdrawn. We must conclude, therefore, that this statement on the part of our subject but strengthens the evidence leading up to

a diagnosis to stammering.

He says that he does not stammer as badly in argument as in ordinary conversation. This would appear as a contradiction to my previous argument, but peculiar as it may seem, the stammerer is generally able to argue well, especially when he warms up to his subject. This can be explained from the fact that in argument the mind dwells upon what we are about to say, rather than upon the manner in which we are to say it, and thus temporarily our thoughts are taken away from the difficult obstacles that usually present themselves. While the stammerer, as already explained, usually has the greatest difficulty when he relaxes his mind from carefulness of speaking, yet in argument the order of things in this respect is generally reversed. He usually talks better in argument than ordinarily. It is when relaxed and indifferent that he usually has the greatest difficulty. In argument the mind is active. There is no doubt, also, that the desire to win acts as an incentive or generating influence to motive power, and thus affords stimulus of mind sufficient for the proper coordination of all the functions and organs concerned in the production of speech.

It would appear, therefore, from this that what would at first seem a contradiction to former arguments can be thus scientifically explained and adds another link to this interesting above.

another link to this interesting chain of evidence.

Strange as it may appear to one unacquainted with stammering, nearly all stammerers have their pet words which prove difficult of utterance for them. One stammerer cannot begin the letter "t," while another, who has no difficulty with words commencing with "t," can-

not articulate words beginning with "b."

Nor is this difficulty in a single case confined to but one letter of the alphabet, as the great majority of sufferers find equal obstruction in the utterance of different letters. To make myself clear on this point, I wish to explain that the letter of itself does not often cause the obstruction, as most stammerers can articulate any letter of the alphabet separately. It is generally when the letter in question forms the beginning of a syllable or word.

However, there are exceptions to this, as many stam-

merers are utterly unable to utter the vowels.

These obstructions appear to arise only under certain conditions, according to the condition of the health, the state of the nerves, or the repose of the mind. There is a wide difference among stammerers, scarcely two persons being afflicted exactly in the same manner.

You have heard the old adage that every sparrow is

a bird, yet every bird is not a sparrow.

In the same sense stammering is stammering, and while all cases do not bear the same outward manifestations, all are substantially the same, the difference in cases amounting only to the difference in temperaments or in the severity of the case.

The letters or combination of letters upon which one stammers has something to do with determining the

type of stammering, yet no definite conclusion can be arrived at from letters alone.

Our subject whose case we have been examining tells us that words beginning with "b," "t," and "m," prove the greatest obstacles, while words commencing with other letters prove an occasional hindrance.

However, the three mentioned are his greatest obstacles, and he adds that always, unless very careful, he has great difficulty in articulating them. Notice that he says "unless very careful." This suggests that with carefulness he can overcome them, and would appear as an indication of stammering, as we have shown that the stammerer can by the exercise of his will partly or wholly control his stammering.

What shall we say of his difficult letters?

Stammering, it is authoritatively stated, is manifested principally in the articulating organs, which temporarily become glued together. Stuttering, on the other hand, is manifested principally in the organs of respiration, without the articulating organs being primarily affected.

The former is due to a deficiency or lack of exercise and control of the mental energy of the will over the organs of utterance, while the latter is generally due to an improper manner of breathing and vocalization.

Pronounce any word beginning with "b," "t," or "m,"—battle, tattered, master—and we find that it cannot be enunciated without the action of the articulating organs, the organs between the larynx and the lips.

This would appear as an indication of stammering, especially when we note his answer to my next question. He says in his effort to speak he cannot effect a begin-

ning. Sometimes his organs of speech become tightly glued together, at other times there is heard a sound of escaping breath. The stutterer can usually effect a beginning and either with spasmodic effort or otherwise

rapidly repeats or mixes up his words.

The stammerer, on the contrary, is usually unable to begin, and either effects a beginning with labored effort of the diaphragm or hisses his words between his teeth. Often his organs of speech become glued together in such a manner as to prevent the utterance of a single sound. The stutterer rarely manifests these conditions, but with convulsive action or spasmodic effort starts his sentences immediately. He may make several attempts but can generally effect a beginning. Thus, when he says that his organs of speech become tightly glued together and adds that at other times he makes a hissing sound or the sound of escaping breath, I take it as a further evidence of stammering. Many stammerers first expel all the air from their lungs, after which they try to talk on exhausted breath. This habit reminds me of the musician who would attempt to get music from an organ after he had allowed the bellows to collapse.

Nearly all stammerers can sing without any apparent manifestation of an impediment in their speech. This peculiarity is accounted for from the fact that in music there is rhythm and meter. There are no abrupt beginnings. All words are commenced in an even drawn manner which appears to be conducive to the harmonious action of the vocal organs. One authority says the stammerer betrays his defect in singing and in measured talking, but from experience I have observed that there are

many exceptions, as only a small percentage of stammerers have trouble in singing. However, where one has difficulty in singing the same as in speaking it may be taken as a positive evidence of stammering. In my experience I have known of only a few persons to stammer in singing. In answer to further questions on my part our subject tells us that he frequently meets with hindrance in his singing, which, as already explained, is evidence of a case of stammering. The stutterer never betrays his defect in singing. He informs us, however, that he can speak fluently and without the slightest apparent hindrance when angry. With anger comes determination, with determination comes will effort, and with will effort comes control. As explained in the beginning of this article, the stammerer can, by exercising his will or determination, partly or wholly control his speech. This explains why when very angry many stammerers speak fluently. The accumulated nervous force and energy under such circumstances appear sufficient to enable him to exercise the required control. The stutterer when angered or excited is thereby rendered powerless to speak, his efforts to do so generally resulting in spasmodic and convulsive action. There are exceptions to this, as we occasionally find a man who presents all the manifestations of the stammerer, but who when angry is confused in speaking, while on the other hand I have found that a few stutterers were able to speak quite well when very angry. It may be generally stated, however, that it temporarily improves the stammerer to anger him, while to anger the stutterer is to make him worse. It is after the anger and passion have

merer becomes worse. The circumstance that the subject whom we have been examining can speak well when angry may, therefore, be accepted as further evidence of stammering. He says in answer to further questioning that he can talk better to persons before whom he does not wish to exhibit his stammering, but that he is oftentimes obliged to use synonyms and substitute words to avoid obstacles. Here we have another trait of stammering. One of our correspondents writes:

"Many years ago in exhibiting to an acquaintance photographs of a number of my relatives and friends, I came upon the likeness of my brother. The word brother was invariably a stumbling-block for me, and this time proved no exception. I did not want my friend to know that I stammered, yet how was I to conceal it. I endeavored to pass the photograph by without explanation in order to avoid an exhibition of my stammering and contortion, which at such times was most pronounced and severe, but to my embarrassment I was promptly asked by my friend whose likeness it was I had endeavored to pass. Stammerer-like, my mind reached out in a thousand directions for a synonym, but there was no other word that I could use. Trifling as the incident may seem, I shall never forget it. My mind became almost a perfect biank when, quick as a flash, I carefully replied, stammering as I repeated the words: 'That is a picture of one in our family who is next older than I.' It is unnecessary to explain that my reply provoked an abundance of mirth, at the same time I avoided temporarily by my tactics, as many stammerers do, a most embarrassing ordeal of contortion and wasted effort."

Our subject says further that he does not lisp, and that his articulation is perfect when he does not stam-

mer. He is of a nervous temperament, with a fairly good physique, cheerful in disposition, subject, however, to spells of melancholy. In summing up the evidence we find that every time in answer to questions the manifestations all point to a case of stammering. It is, I have no doubt, a case of hereditary stammering which might have remained dormant and never would have manifested itself but for his having imitated a fellow sufferer. The condition, no doubt, was predisposed, and required but the torch of imagination to awaken it and develop its dormant qualities. Thus, while it may be said on the one hand that his stammering was due to mimicry, it was on the other hand primarily due to heredity, and will require the same treatment and care as a case of hereditary stammering.

Much has been written and said about the treatment of stammering, and many of those who say and write often know less when they have finished than before

they began.

I receive many hundreds of letters from stammerers asking about treatment. One man writes and asks whether he is too old for treatment. Another wishes to know whether he is too young; a third has been an inveterate tobacco user and wishes to know whether this will ruin the chances for a cure; a fourth has suffered from ill health and asks whether this fact will bar him out, and thus I might go on and tell about many different kinds of people who write as many different kinds of letters about as many different types of stammering.

All want to be cured, and all are anxious about treatment. The first question that naturally arises in the mind of the stammerer is, "Can I be cured and by what means?" Every stammerer asks himself this question, and the question often repeats itself to him. How shall we answer?

It is true that until within the past five or ten years but little advance had been made in the science of treating stammering. Many attempts were made, rewarded with but little success and many failures. A few conscientious men worked hard in the interests of stammerers and stammering, while a countless number of "quacks," "professors," and "charlatans" were apparently working the stammerer and bleeding him for all and more than he was worth. This, I think, has in a large measure had a tendency to make the stammerer skeptical, even at this advanced era of success in treating stammering, as the older generation of stammerers well remember the rough experience through which they passed, and not satisfied with allowing these things to influence them, they throw this skepticism into the minds of their children and the younger generation, with the result that they also in many instances regard a cure as doubtful. This, to me, is ridiculous. In my mind, it would be equally as fair to say that a man nowadays would surely die from appendicitis because his father or grandfather died from appendicitis. Everybody knows that the chance of death from appendicitis (once so fatal) has been lessened to a remarkable degree within the last few years, owing to the rapid strides in science and surgery.

During our fathers' and grandfathers' time the deaf mute was obliged to converse entirely by signs and by

the use of his fingers. Since then large institutions have been established all over the country, where these unfortunates are taught to converse with oral expression. Note, also, the advance in the use of medicine. Compare the old methods with the new.

In short, comparisons without number could be drawn to show the remarkable advance of science, art,

and learning in every imaginable way.

Old fogyisms and old-time ways are being rapidly supplanted by modern methods in almost every science, art, trade, and profession, and thus I claim that it is both wrong and unjust for those who are familiar with the unsuccessful attempts made to cure stammering years ago to allow this prejudice to influence them either in the matter of their own cure or a cure for any other unfortunate.

That stammering has been cured, can be cured, and is being cured, hundreds of living monuments to successful treatment bear testimony. It is true that there are still, and no doubt ever will be, that class of charlatan quacks who never do what they profess to do, but we find this element in every walk of life and in every profession. But this fact should not prejudice the stammerer against those who are truly endeavoring to benefit him.

Would it not be equally as fair to say that all professing Christians are hypocrites because a few are hypocrites? Shall we condemn the many for the errors of a few, or, on the other hand, shall we condemn the few for

the errors of the many?

Shall we condemn our reputable and educated physicians because a countless number of ignorant quacks, divine healers, and such like, overrun the country, claiming to do what they cannot do, and never doing what they claim to do? Shall we not endeavor to encourage

the one and abolish the other?

Shall the skilled mechanic be condemned because a more pretentious fellow-laborer is a botch? Why not, then, apply this argument to reputable institutions for the cure of stammering? One reason I have dwelt so largely upon this prejudice and skepticism, which is apparent in the minds of most stammerers, is this, that I believe that in order for a patient to be cured of stammering he should have every confidence in his instructor, and himself fully believe in a successful termination to his efforts. We find this also in the sick patient. Doctors will tell you that in serious illness the chances for recovery are always in favor of the patient who believes in his recovery. Whenever a patient in a sick room gives up his case as hopelessly lost, the attending physician is handicapped. Hope is everything, but belief is often a reality in itself. This is true especially in the treatment of stammering.

That which may be considered lost may oftentimes be regained by confidence. Confidence in the instructor, confidence in the instructions, and confidence in the cure. Confidence welded with hope is the stammerer's step-

ping stone to success.

I have many times been asked to state what type of stammering I consider the most difficult to cure. In my opinion all forms of stammering are curable, provided, of course, that the patient is well disposed for treatment and obeys instructions. This disposition for treatment may be explained as an anxiety on the part of the patient

for treatment, a disposition to do everything he is told to do, and obedience in this, that he will do nothing that he is told not to do.

Age has but little to do with the chances for recovery in any case of stammering. When a child has passed its tenth year it is old enough to intelligently understand and apply all of the exercises necessary in effecting a cure, and not until a man or woman commences to grow childish from old age is that most coveted prize, a cure, a lost possibility. It is largely true with stammering that the earlier we can check it the better, yet, strange as it may appear, many cases of long standing yield to treatment more readily than those of more recent origin.

The type of stammering in itself does not apparently appear as important as the conditions that surround it. By this I mean that the ordinary case of stammering, otherwise easy to cure, might prove difficult if surrounded by unfavorable conditions. These conditions are varied and consist of the health of the pupil, his temperament, disposition, and habits, his belief or nonbelief in the cure, and his comprehension of ideas and application to instruction figure also as

important factors in determining results.

Much depends also upon the course or plan of treatment pursued, but more depends upon the application of that treatment. A poor system of treatment well applied will invariably give better results than a good system of treatment poorly applied. A poor system of treatment poorly applied will give absolutely no results at all, while a good system of treatment well applied will give results that are most satisfactory.

Under such treatment there is no doubt or question but that the worst possible cases of stammering can be entirely and permanently cured. I have spoken of the health of the pupil as having an important bearing in determining his cure. This is true, yet persons in ill health should not be frightened and imagine, because their health is poor, the chances for their recovery are small. The fact of the matter is that the ill health of the stammerer is usually consequent from nervous exhaustion caused by the continued unsettled condition of his nerves and consequent drain upon his vitality. Nervousness is the result of stammering, not the cause, and we find under treatment while the cure is being fastened upon a pupil and his old habit of stammering shaken off, the nervous force and energy gradually return, thereby much improving the general health.

Having personally known of a number of such instances, I have arrived at the conclusion that many stammerers who are constantly suffering from poor health, caused by the disturbed and unsettled condition of their nerves, would grow strong and robust if relieved

from this distressing impediment.

While I have said the health of the pupil has an important bearing on the treatment, these ill conditions caused by poor health are entirely overcome by the progress of the pupil under treatment. Any good treatment for the cure of stammering will have as a part of its system a regular course of training for the improvement of the general health of every pupil.

Classes should be graded, and the exercises adapted to the wants of each particular case. This done and

the pupil properly instructed, an absolute cure will result, even though a pupil when he commences treatment is suffering from poor health, provided, of course, that the condition of his health is not such as to wholly unfit him for his work, that the treatment is rational and modern, and the pupil obedient in the fulfillment of his duties.

I have said that the disposition of the pupil enters into treatment as an important factor in determining the results of his efforts to overcome his trouble. I have also touched upon this subject and defined why and how a pupil for treatment should be favorably disposed, and were it not for the fact that my remarks on this point have been made perfectly clear, I would dwell more largely upon it now. Suffice it to say that any person desirous of overcoming the lifelong habit of stammering, should while under treatment cultivate a cheerful disposition and entertain at all times a kindly feeling toward all. Having touched upon the question of the health and disposition or temperament of the pupil, let us now dwell for a moment on the habits of the stammerer. I am sorry to say many stammerers and also a fair percentage of young men who do not stammer do things in their early youth, the results of which oftentimes cling to them during the whole balance of their lives. These habits are not always at the root of the evil of stammering, but are certainly conducive to it and should be stopped at once. The use of tobacco should by all means be abandoned by every stammerer, as it not only aggravates the evil, but makes the case less responsive to treatment. The use of liquor, especially whiskey, wines, or beer, should

also be avoided, nor would I advise the use of coffee or tea. Anything that acts as a stimulant or which affects

the nerve centers should be carefully put aside.

While the temperament and disposition of a pupil under treatment for stammering has some bearing in determining results, the moral aspect of matters must not be lost sight of. Pupils should allow their minds to run only in moral channels and abstain from all those things which corrupt or destroy. When a stammerer decides to undergo treatment for stammering he should at the same time, if he wishes to be successful, make up his mind to undergo, as far as possible, a change in his other habits. If he is already a moral man this of course will be unnecessary. Let him keep his mind pure, abstain from excess of any kind, attend properly to his habits of eating and sleeping and take such exercise out of doors as is necessary for his physical well-being. This is especially applicable to cases of intermittent stammering, where the severity of the case alternates in ratio with the physical condition of the sufferer.

In the beginning of this article I, as far as possible, told my reader how I would diagnose a case of stammering and have subsequently dwelt upon conditions favorable to treatment. This I have done in a general way in answer to many inquiries received from correspondents asking me to tell them how to prepare for a course of treatment in order that they might complete their cure in the shortest time possible consistent with the very best results. In continuing I wish to say that the success of any enterprise for the cure of stammering will largely depend upon the permanency of its cures.

The cure in itself is not by any means difficult to effect. It is the permanency of the cure that bothers many persons, to insure which their every effort appears to be of no avail. Their failure to succeed is no doubt due to their lack of thoroughness and knowledge and their inattention to the little details that go to make the cure complete. Thus it is I have held out a few suggestions which should receive the attention of every would-besuccessful student. There has been much sensationalism associated with some treatments for the cure of stammering which I most bitterly oppose. I am not a believer in the theory that Divine Providence is in partnership with any institution or person interested in the cure of stammering. Neither do I believe that the Almighty has selected out any one particular person to cure stammering and that all other persons are unable to perform such "miracles." In fact, I do not believe that there is any miracle-working wonder about it. Matters have even gone so far that an eastern institution advertising to cure stammering makes an open claim to support from God. Who can wonder that all this sensationalism and hypocrisy could but result in evil instead of good. These time-worn ideas, however, are rapidly dying out and the stammerer, already warned against them, is giving ear to more rational theories.

Speaking further with reference to treatments for the cure of stammering, I could name many of the earlier authorities and give a synopsis of their theories, which, however, would prove of no practical benefit to the reader.

Probably the earliest cure of which we have any knowledge is Demosthenes. According to Potter,

Satyrus, the Grecian actor, is said by Plutarch to have been responsible for the cure of Demosthenes, who labored under a weak voice, indistinct speech, and short breath, combined with violence of manner. The generally received notion that the cure of the great Grecian orator was effected by speaking with pebbles in his mouth is not borne out by the historical account, for both Demetrius and Cicero tell us that Demosthenes spent months in training his voice, using a looking-glass during his vocal exercises and applying every power of his will to the conquering of his speech defect, the pebbles being but an incidental part of the treatment.

Celus (A. D. 1-37) describes various means of correcting speech defects. Ætius (600) also blames the tongue. Ægineta did likewise. Avicenna (1000), another early authority, also lays the fault to the tongue.

De Chauliac (1336), a celebrated Italian surgeon, ascribed stuttering to convulsions, ulcers, or other affections of the tongue, to paralysis, or to moisture of the nerves and muscles. His treatment consisted of embrocations to desiccate the brain, cauteries to the vertebræ, blisters, frictions, and "gargarisms" for the tongue.

Mercurialis (15-84), professor at Padua, Bologna, and Pisa, wrote concerning stuttering in his work, locating its cause in the brain and in the tongue and giving it two species, according as it was produced by abnormal dryness or moisture of those parts. His treatment was similar to De Chauliac's with the addition of systematic exercise of the voice and the body.

Canon Kingsley (1860), a celebrated English orator and writer, chaplain to the Queen, was himself a

stutterer until he was nearly forty years of age, and has written at considerable length regarding the affection. Kingsley made many mistakes and laid down many foolish and nonsensical rules. He writes that the cause of stammering in three cases out of four can be traced to conscious or unconscious imitation. In a letter to a young lady he tells her she stammers because her upper teeth, like his, shut over the lower ones, and prescribes a set of fixed rules, the chief of which relates to opening the mouth widely. He considered boxing an excellent pastime for the stammerer. Had he been a Frenchman, Dr. Potter remarks, he would have said fencing—if an American, base ball. Hunt treated stammering successfully in England for many years and wrote a comprehensive treatise on the subject which Dr. Potter says is sufficiently complex to cause a mania of both the auditory and articulating apparatus.

Dr. Klencke conducted an institution in Hanover, Germany, and met with a fair degree of success. In his writings he has advanced a number of different theories regarding the nature of stammering, his ideas of the moral nature of the stammerer being disputed by many other authorities. His patients appeared to be largely of the lower class, or of a low order, but his opinion is worthy of respect from the fact that he had a wide

experience.

There was one rational feature in connection with Klencke's method which I heartily endorse and recommend, that is his endeavors to arouse the will of his pupil and keep it in constant action. He also drilled his patients systematically in the technics of speech. Much

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might be added of the different methods of treatment and theories of early writers, but all are vague and in a sense impractical. The earlier methods of surgery and superstition have practically died out, and thus it remains for later authorities to advance and carry out more sensible methods of treatment.

After years of careful study and investigation I am convinced now more than ever that only such methods as are educational in character and graded to suit the requirements of special cases can prove efficient. Tricks and secrets are old-time fogyisms. Surgery is no longer employed anywhere. There is no longer room for the charlatan or quack. New ideas, business methods, and modern facilities for treatment have at last proved true the old saying:

"You can fool some of the people all of the time; you can fool all of the people some of the time; but

you can't fool all the people all the time."

HELPFUL HINTS AND EXERCISES

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BREATHING, SLEEP, MORALITY, DIET,

AND THEIR RELATION TO A POSSIBLE CURE FOR

STAMMERING

BREATHING

THERE are many stammerers who do not appear to understand the benefits to be derived from practicing a correct form of breathing. A correct form of breathing cannot in itself, without other principles, establish a cure for stammering any more than a pile of bricks can in itself form a building without mortar or masonry. It may, however, serve as an auxiliary and when combined with other exercises it oftentimes forms a basis upon which a cure may be built. One thing is certain—we cannot produce voice without producing breath. If, then, we have an incorrect manner of producing our breath, what shall we say of our syllables, of our words, and of our sentences? Shall we not go back to the prime disturbance and by the pursuance of a system of

exercises directly opposed to our wrongly-formed habits endeavor to correct the evil and begin anew?

Although the origin of all this disturbance with the stammerer can in no way be attributed to his abnormal respiration,* which is rather a result than a cause, yet we should aim, if possible, to correct the habit and substitute for it a correct manner of respiration. If we can succeed in doing this the chances for the permanency of the cure are largely added to, and we can also count

on more rapid progress from the beginning.

There are many benefits to be derived from the pursuance of good breathing exercises. Even for those not afflicted with stammering, but for the stammerer, especially, they are particularly beneficial. Let us for a moment discuss the relation of breathing exercises to a possible cure for stammering. Can we by a pursuance of breathing exercises in any possible way influence or strengthen that which directs and controls all movements of the body—the brain? When we wish to strengthen any function or muscle of the body we exercise it. This granted, can we not by exercising that portion of the brain wherein the stammerer is deficient, improve and strengthen it to a degree sufficient to give the will absolute control over the organs of respiration? For illustration or example, suppose we wish to execute costal breathing. In costal breathing we direct the effort of the mind to the muscles of the sides and by forcing the same to obey the dictates of the will we force them out and allow them to again contract, al-

^{*} Stammering originates in the brain, see footnote page 27.

ways, of course, aiding this performance by means of the pressure of the air within, which we have in the meantime inhaled for this purpose. We repeat this exercise again and again and in so doing not only exercise the costal muscles of the body, but at the same time are also educating the mind to control muscle action. We proceed to other forms of breathing and find in dorsal breathing the will commands the muscles of the back, in chest breathing the muscles of the chest respond to the dictates of the mind. In diaphragmatic breathing we find the diaphragmatic muscle obeys, and hence while the muscles of respiration are being exercised, that which gives the command is also being exercised. In stammering we find as a result of certain existing circumstances the muscles of respiration refuse to obey the dictates of the mind. The will is insufficient; the harmony and co-ordination of the functions and organs concerned in speech production is disturbed and we falter or stumble, but if we educate the mind to control these muscles we find always a ready response to our desires. This is the relation of breathing exercises to a possible cure for stammering.

Another incalculable benefit to be derived from a good system of breathing exercises is the development it gives to the whole body. But you say—what benefit can that afford me? What bearing has that upon a possible cure for my stammering? Would you believe it that nearly everything you do has either a beneficial or deleterious effect upon your talking? One stammerer says: I stammer worse when I am suffering from indigestion; another argues that he suffers worse from the loss of sleep;

another claims that his greatest difficulty comes from cold in the head; another has spasms when brought into contact with strangers; another grows worse from the use of tobacco, and thus I could tell you of a thousand and one or more persons, all of whom suffer worse from this, that, or the other thing. They do not seem to

attribute it all to one parent cause.

When you observe a result you may always rest assured there is a cause, and in this cause (the disturbance of the nerve centers of the body) lies the great unhidden law that rules supreme. Anything that upsets the equilibrium of control should be carefully guarded against. He who stammers worse when suffering from indigestion must learn that the whole nervous system of the body is affected by a deranged condition of the stomach and that his excessive difficulty in speaking under such circumstances is but natural, because that which affects the nerves affects also the fluency of his speech.

He who overindulges himself in natural or unnatural excitement must pay the penalty in his talking—because just as sure as the night follows the day, so also does stammering follow a disturbance or agitation of the nerve centers. He who stammers worse when suffering from the effects of a cold must also learn that he is suffering from a disturbance of the nerves. This has been not only my personal experience, but is largely based upon my observation in hundreds of other cases.

The same law that metes out suffering to the stammerer who would disobey its rulings also crowns with laurels of success him who will build up and strengthen

his body. Thus, if it can be shown that breathing exer-