

The University of Maine

DigitalCommons@UMaine

Electronic Theses and Dissertations

Fogler Library

3-1929

Procedure in a Study of Speech Disorders

Herbert Edgar Rahe

Follow this and additional works at: <https://digitalcommons.library.umaine.edu/etd>



Part of the [Psychology Commons](#)

Recommended Citation

Rahe, Herbert Edgar, "Procedure in a Study of Speech Disorders" (1929). *Electronic Theses and Dissertations*. 3326.

<https://digitalcommons.library.umaine.edu/etd/3326>

This Open-Access Thesis is brought to you for free and open access by DigitalCommons@UMaine. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of DigitalCommons@UMaine. For more information, please contact um.library.technical.services@maine.edu.

PROCEDURE
IN A STUDY OF
SPEECH DISORDERS

A THESIS

Submitted in Partial Fulfillment
of the Requirements for the Degree of
Master of Arts (in Psychology)

by

HERBERT EDGAR RAHE

B. S., University of Illinois, 1926

College of Arts and Sciences

University of Maine

Orono

March 1929.

Acknowledgments

Special acknowledgment is hereby given to Dr. Charles A. Dickinson for his kindly criticisms and stimulating suggestions throughout this study. My gratitude is also extended to my public speaking colleagues both at the University of Maine and Butler University for their hearty cooperation in this endeavour.

Table of Contents

- I. Introductory remarks.
- II. Classification chart showing the types of speech disorders from the standpoints of several specialists.
- III. Differentiation, Symptoms, Causes, and Treatment of Important Types.
- IV. Method of procedure.
- V. Case studies at the University of Maine and Butler University.
- VI. Summary and suggestions.

Appendix

- A. Definition of technical terms related to speech disorders.
- B. Bibliography of material read and for further reading.

Chapter I

INTRODUCTORY REMARKS

In this study, procedure means an emphasis on the steps or the methods involved in treating various types of disorders of speech. For the term - disorders of speech - I am following the definition given by Borden and Busse in their book, "Speech Correction", (P. 126) "A speech defect may be defined as any acoustic variation from an accepted speech standard so extreme as to be (a) conspicuous, (b) confusing, or (c) unpleasant."

"Acoustic variations from accepted speech standards which are not conspicuous, confusing or unpleasant will be considered in the present work as permissible indications of a to-be- expected tendency on the part of every individual and of every group of individuals to vary somewhat from the theoretical norm....there is, strictly speaking, no such thing as standard speech -- unless we interpret the term broadly and intelligently, allowing latitude for a reasonable amount of individual and regional variation."¹. Hence, it shall not be my purpose to haggle over the exact standard of speech, but merely to point out that the standard is that of the majority of educated persons in a particular locality.

1. Footnote p. 126.

There are many problems which confront the student of speech disorders at the outset. First, there is the question of where shall he go for authoritative material bearing upon this subject. Naturally each author tends to deal with the types with which he has had the greatest amount of work. A list of references which will adequately cover the major and minor speech disorders is almost a thesis in itself. Hence, I have appended a list of the references which have influenced me during this study and, also, a list included for further reading.

Throughout any scientific pursuit there is a constant need of understanding the language in which an author is writing. A lack of knowledge of technical terms often precludes further advance. To partly solve this second problem, I have appended a list of terms which are rather common to the field of speech disorders.

The third problem is very closely related to the problem of definition of terms; it is the problem of classifying the different types of speech disorders. What are the major types? What are the minor types? Which authors agree upon certain types? These are some of the questions. Chapter II will be devoted to this problem.

The fourth difficulty is that of finding the cause or causes for the type of speech disorder under consideration. Obviously if we are to treat a case effectively we must understand thoroughly all of the factors which might enter

Chapter I

in to produce an irregularity in speech production. One author says one thing is the cause, another says another thing is the cause. Which is right? By the results obtained? One of the chief sources of error which should be carefully guarded against is that of assuming that the predisposing cause must of necessity have occurred just before the effect -- a fallacy of "simple accident" which we refer to in argumentation. Just because certain things occurred before the onset of a speech breakdown does not necessarily mean that therein lies the cause.

O'Neill, Laycock, and Scales raise these questions in relation to cause and effect:¹. "a. Is the connection of cause and effect complete? b. Is the cause adequate to produce the effect in question? c. Did the operation of other causes in the case in question prevent the action of the cause under discussion? d. Is there an entirely different argument from cause to effect that should be substituted for the one advanced?" Therefore we are constantly alert and receptive to new clues for the causes to be taken into consideration.

A fifth problem is to decide which treatment to use of the many suggested. If we have much time at our disposal, the method of treatment can be modified somewhat. As Dr. Moore says in his book "Dynamic Psychology", we are looking for a method which has a certain degree of universality in its application

1. O'Neill, Laycock and Scales, "Argumentation & Debate", 142-145.

and which can be applied with a fair degree of ease. I feel safe in saying that every good speech specialist has a number of methods of procedure; hence, he can not say exactly what method to use until he has seen the case in question. But a method universal in application is one that has certain elements which can be applied to each case, thus, allowing for certain variations. And no matter how good a therapeutic procedure one may have, it amounts to little unless it can be fairly easily applied.

Now, assuming that a person has all this general theoretical knowledge of which I have been speaking, just what shall he do with each case, from the preliminary diagnosis to the final cure? Where shall he begin, and what shall he do each step of the way? Here again I would emphasize the necessity of having a general procedure in mind, similar to that given in Dr. West's, "Diagnosis of Disorders of Speech". With the minor types of speech disorders this is not such a problem, but with the severe cases the beginner in corrective work is often at a complete loss to know what to do next.

Throughout this study, let it be clearly kept in mind that a cure is regarded only when it leads to final adaptation of the patient to the exigencies of the situations in which he lives.

The chief purpose of this thesis is not to present a body of scientific observations in support of one particular theory of treatment. Nor is this the place to record the testing out of all of the possible theories presented.

Chapter I.

Nevertheless, the results of some practical experience are recorded to show the necessity of understanding the psychogenetic approach to this neglected phase of our education, as well as understanding the organic approach. My chief aim is first to be of aid to teachers in the grammar schools who are confronted most with this problem; and, secondly, to stimulate further research among students of speech disorders.

The importance of this subject is partly given by Wallin in his "Report of Speech Defectives in the St. Louis Public Schools".¹ Of 89,057 pupils, 2.8 percent were troubled with speech disorders. Other investigations recorded in his report show that over 2 percent of the school population are in need of speech correction. The questionnaire plan was used by Wallin, thus allowing many minor disorders to escape the attention of the teacher who frequently knows relatively little concerning the various types of speech disorders.

Furthermore, Dr. Stinchfield gives the following report relative to the importance of attention to speech disorders.

"Dr. Smiley Blanton in a survey of Madison Schools including 8,000 cases in seventeen schools found the incidence of speech defects to be 5.6 percent. Miss Pauline Camp found 13 percent in the schools of Grand Rapids. She attributes this larger number to the fact that she personally examined each child included in the survey, whereas most of the surveys previously made had been based upon questionnaire methods and reports made by teachers untrained in the field of speech defects.

1. Wallin p. 176.

Chapter I

In 1922 the writer, giving speech tests to all children in each of eight grades in the Madison, Wisconsin public schools found 18 percent having speech difficulties ranging from relatively mild to severe."¹.

In summary, the following are the main difficulties which have been presented in the approach to this study.

- (1) Obtaining authoritative material.
- (2) Defining technical terms.
- (3) Classifying the types of speech disorders.
- (4) Finding the cause or causes.
- (5) Securing possible treatments.
- (6) Presenting a method or methods of procedure in a case study.

Furthermore the nature of this problem has been limited and the chief purpose has been set forth.

Chapter II

CLASSIFICATION OF TYPES OF SPEECH DISORDERS

To define a speech defect as "any acoustic variation from an accepted speech standard so extreme as to be (a) conspicuous, (b) confusing or (c) unpleasant" does not give us a very adequate idea of the types of speech disorders prevalent to-day. The classification chart which follows can not give a complete idea of the speech disturbances, but it will help to clarify matters.

First, a study of classification helps one to understand the different writers on this subject. For instance, on the subject of nasality and nasal twang, McCullough and Birmingham say:

"Nasality must be distinguished from nasal twang. The latter is a lack of nasal resonance, due to some stoppage of the nasal passages..... Nasality proper is the excessive use of nasal tones, due to a fallen palate or to greatly enlarged tonsils. The air-stream, and consequently all resonance, is blocked from the mouth, and the tones become exclusively nasal."¹

Likewise Dr. Martin says, "Nasality is the emission of too much sound through the nose..... Nasal twang is the emission of too much sound through the mouth."²

Avery, Dorsey, and Sickels in speaking of nasalization, agree with the above authors on nasality, as in this statement: "In the pronunciation [tæn] (tan) the soft palate is lowered too soon and part of the air stream allowed to pass through the nose, so that [æ] is nasalized."³

1. "Correcting Speech Defects and Foreign Accent" p.14.
2. F. and L. Martin, "Manual of Speech Training", p 29.
3. "First Principles of Speech Training", p. 146.

Chapter II

but they are vague and indefinite as to what they mean by nasal twang when they give "Exercises for Developing Nasal Resonance and Eliminating Nasal Twang."¹

The central idea seems to be that a nasal twang is the result of the air stream passing through the nose instead of the mouth. This indication is noticeable in these statements:

"The vowels and diphthongs most commonly nasalized are [aʊ], [aɪ], [æ], [ɛ], [eɪ], especially when preceded or followed by a nasal consonant. These vowels are frequently nasalized by persons whose vowels are otherwise quite free from defects.....In practicing the selections it is important to form every [t] and [d] with great firmness and precision, since this centering of the attention on a firm, forward articulation helps to counteract the natural tendency to allow the breath to pass out through the nose as it does in quiet breathing."²

Thus, there seems to be little difference between nasality and nasal twang with Avery, Dorsey, and Sickels.

Likewise Ward seems to use the terms nasality and nasal twang interchangeably. In speaking of "nasal twang" she says:

"When a speaker gives a general effect of nasality it means that the soft palate, which should move upwards to close the passage to the nose for every sound except the nasal consonants, is not doing its work properly, i.e. some air is escaping through the nose. The degree of nasality varies with different speakers; most people nasalize, to a certain extent, the vowels in the neighbourhood of nasal consonants, but if more than the normal amount of nasality occurs, the effect is noticeable and felt to be unpleasant. It is the vowels chiefly that are concerned though some of the consonants may also be affected."³

1. Ibid, p. 267

2. Ibid, p. 267

3. Ward, "Defects of Speech", p. 43

Chapter II

Furthermore, Borden and Busse have two types of nasal speech:

"(a) Speech characterized by a PATHOLOGIC DEFICIENCY of nasal resonance i.e., speech in which the sound units M, N, and NG are imperfectly resonated and hence sound 'stuffy' and 'muffled'.

(b) Speech characterized by a PATHOLOGIC EXCESS of nasal resonance i.e., speech in which the vowel and consonant sounds, properly resonated by means of the oral cavity alone, are resonated partly in the oral and partly in the nasal cavity."¹.

Stinchfield further points out the varied terminology in use to-day:

"Blanton gives four types of stuttering. He speaks of the stutterer of the hypomanic type, the hysterical stutterer suffering from organic or functional disorders. Scripture gives three types of lisping, the organic, negligent, and neurotic. Swift attributes stuttering to visual or auditory amnesia, of a transient type. Many specialists use the terms stuttering and stammering interchangeably, although by derivation they mean very different things; stuttering referring to labored speech and stammering to mispronunciation. Hence stammering is applied by the Germans to all forms of lisping, letter substitution or oral inaccuracies of whatever type."².

Further agreements and differences in terminology may be noted in Appendix A on definition of terms.

Second, it is easier to treat cases under a tentative classification. True, the easiest way is not always the best; nor is the slowest, most difficult way productive of good results in many instances. In the diagnosis, Borden and Busse emphasize the above statement under the heading of "the classification of these defects according to the cause."³. Once the tentative classification of a case has been decided, a

1. Speech Correction, p.233.

2. Speech Correction, p.23.

3. Speech Correction, p.131.

Chapter II

method of approach can be adopted more quickly.

Another reason for noting a classification is that it aids in showing the relative amount of time and study that should be spent on each type with reference to our school systems. The statement that all specialists are narrow minded is sometimes true but need not always be true if time is taken to align their work more carefully with other endeavours. In the case of speech correction the psychologist dealing with stammering or stuttering, should not overemphasize them to the exclusion of phonetic defects, as in lispings or lallings though not necessarily belonging under this heading.

Lastly, a classification chart aids in differentiating the major from the minor speech disorders. We can not say with certainty just when a speech disorder should be classified as a minor disorder (that is, one which is relatively easy to handle and not "minor" in the sense that this disorder occurs less frequently) or as a major disorder (that is, a psychopathic case, one requiring a relatively long time for a cure.) The real difference seems to lie in the degree of emotional stability or instability back of the speech disorder. A recent case of nasality, though of a so-called minor nature, exhibited more psychopathic tendencies than any of the cases of stammering or stuttering with which I have worked.

The following chart is not all inclusive but suggests the present tendencies in speech correction work. The major classification terms are given on the chart; the subdivisions of the major headings appear following the chart.

Chart References

1. Borden & Busse, "Speech Correction", p. 128-130
2. W. B. Swift, "Speech Defects in School Children"
3. McCullough & Birmingham, "Correcting Speech Defects & Foreign Accents"
Title implies that foreign accent is not a speech defect.
() - used together
4. E. L. Hunt, "Diagnostic Symptoms in Nervous Diseases", p. 177-178.
5. F. & L. Martin, "Manual of Speech Training", p. 10-31.
6. H. M. Peppard, "The Correction of Speech Defects"
Baby Talk
7. Greene & Wells, "The Cause & Cure of Speech Disorders"
8. S. & M. O. Blanton, "Speech Training for Children"
9. I. C. Ward, "Defects of Speech, Their Nature & Their Cure"
Indistinct Articulation
10. M. K. Scripture, "Pathology & Reeducation of Speech Disorders"
"Q. J. Sp. Ed. Vol. 12, p. 148.
11. Stinchfield, "Speech Pathology", p. 23-36
Dysarthria or stuttering.

- I. Borden and Busse
 - A. Organic Speech Defects
 - 1. Nasal Speech
 - 2. Thick Speech
 - 3. Harsh Speech
 - 4. Aphonia
 - B. Foreign Dialect
 - 1. Sound unit substitutions
 - 2. Sound unit additions
 - 3. Sound unit omissions
 - 4. Misplaced stress
 - 5. Incorrect intonation
 - C. Defects of Provincial Dialect
 - 1. Sound unit substitutions
 - 2. Sound unit additions
 - 3. Sound unit omissions
 - 4. Inversions of properly occurring sound unit sequences
 - 5. Defective tone quality
 - D. Defects of Carelessness
 - 1. Sound unit substitutions
 - 2. Sound unit omissions
 - E. Defects of Infantile Perseveration
 - 1. Sound unit omissions
 - 2. Sound unit substitutions
 - F. Neurotic Defects
 - 1. Stammering (and stuttering)
 - 2. Level Intonation
- II. W. B. Swift
 - A. Minor Disorders of Speech
 - 1. Nasality
 - 2. Monotony
 - 3. Harshness and hoarseness
 - 4. Hasty speech
 - 5. Slovenly speech
- III. McCullough and Birmingham
 - A. Stammering and Stuttering
 - B. Lispering
 - 1. Lingual protrusion
 - 2. Lateral emission

- C. Lalling and Cognate Defects
 - 1. Nasality
 - 2. Nasal twang
 - 3. Aponia ("pure or partial, and functional or physiological")
 - 4. Aphasia
 - 5. Sypneic voice
 - 6. "Apparently hoarse voice due to pseudoparetic condition of the musculatures of speech"(p.29)
- D. Defective Phonation from Habit
 - 1. Baby Talk
 - 2. Slovenly speech
- E. Foreign Accent
 - 1. The giving of improper or false value to our vowels.
 - 2. Placing stress on the wrong syllable
 - 3. The rising inflection at the end of every phrase and sentence.

VI. H. M. Peppard

- A. Speechless child
- B. Lalling and Tongue-tie
- C. Baby Talk
- D. Nasality and Lack of Resonance
 - 1. Cleft palate cases -- acute nasality
- E. Lipping
 - 1. Infantile lipping (tongue protrudes)
 - 2. Lateral lipping
- F. Stammering
 - 1. Stuttering
- G. Foreign Accent

VII. Greene and Wells

- A. Stuttering
- B. Stammering
 - 1. Baby talk
 - 2. Lipping and stigmatism
 - 3. Tongue-tie
 - 4. Agitophasia or Speech Agitans
 - 5. Idioglossia
 - 6. Auditor dumbness
 - 7. Deaf Mutism
 - 8. Hysterical Mutism
 - 9. Hare-lip and Cleft Palate
 - 10. Foreign Accent
- C. Abnormal Voice Condition
 - 1. Hysterical Conditions
 - a. Aponia
 - b. Hypoponia
 - c. Phonesthesia
 - 2. Nasality

Chapter II

3. Chronic Hoarseness
4. Falsetto Voice

VIII. S. & M. G. Blanton

- A. Stuttering
- B. The Monotonous Voice
- C. Letter Substitution
 1. Lispings
 - a. Neurotic lispings
 - b. Mechanical lispings
 - c. Negligent lispings
 - d. Oral inactivity
 - e. Foreign accent
- D. Indistinct Speech
- E. Lack of Speech

IX. I. C. Ward

- A. Indistinct Articulation
- B. Particular Speech Defects
 1. Defective s and z sounds
 2. Defective sh sounds
 3. Defective t sounds
 4. Defects in stops
 5. Defects in nasal consonants
 6. Defects in the l sound
- C. Nasal Twang and Adenoid Speech
- D. Cleft Palate Speech
- E. Stammering

X. M. K. (Mrs. Edward W.) Scripture

- A. Aphasia
 1. Motor
 2. Sensory
- B. Stuttering
- C. Stammering
 1. Lispings
 - a. Organic
 - b. Neurotic
 - c. Negligent
 2. Negligent Speech
 - a. Coloquialisms
 - b. Illiteracy
 - c. Environment
 - d. Carelessness
 - e. Inaccurate Conceptions
 - f. Defective Hearing
 - g. Foreign Accent
 3. Organic Defects
 - a. Cleft Palate
 - b. Hare lip
 - c. Jaw Deformities
 - d. High Palatal Arch
 - e. Fallen Arch

Chapter II

- f. Hemiatrophy of Tongue
- g. Deviated Septum
- h. Tongue-tie

XI. Stinchfield (following terms used by various authors come under the major heading, as defined.)

A. "Alalia; Delayed Speech, or absence of speech since birth" (p. 25)

- "1. Alalia
- 2. Aphemia
- 3. Dumbness
- 4. Lingual arrests of development
- 5. Mutism
- 6. Deaf-Mutism
- 7. Hearing Mutism
- 8. Hysterical Mutism
- 9. Lalophobia
- 10. Phonophobia (fear of talking)"

B. "Dyslalia; Oral Inaccuracy, including lisping, careless enunciation, indistinct utterance and letter substitutions or mutations.

- "1. Lalophobia
- 2. Idioglossia
- 3. Infantile speech
- 4. Articulatory kinaesthesia
- 5. Lathargic speech
- 6. Lisping (frontal sigmacism; lateral sigmacism; simple sigmacism).
- 7. Lalling
- 8. Mutations
- 9. Dyslalia
- 10. Negligent speech
- 11. Slovenly speech
- 12. Sluggish speech
- 13. Stammering
- 14. Foreign Accent
- 15. Letter substitution
- 16. Indistinct speech
.....We find the following terms applied to oral inaccuracies of organic and functional origin.
- 17. Slurring speech
 - a. Of Organic origin
 - b. Of Functional origin
- 18. Articulatory amnesia
- 19. Mutilations
- 20. Dislogia
- 21. Phonetic Defects
- 22. Nasal sigmatism
- 23. Nasal parasigmatism
- 24. Paralambdacism: Parahotacism, etc.
- 25. Logorrhea
- 26. "Nigger-boy speech"

Chapter II

- C. **Dysarthria: Stuttering (stammering)**
1. Stuttering
 2. Stammering
 3. Speech hesitation
 4. Speech blocking
 5. Speech stumbling
 6. Speech pressure
 7. Broken rhythm
 8. Hysterical stutter
 9. Choreatic stutter
 10. Balbus Blaesus
 11. Begaiement, (from the French)
 12. Das Sottern, (from the German)
 13. Tetanic stutter
 14. Phanerogenetic stuttering
 15. Cryptogenetic stuttering"
- D. **Dysphonia; Aphonia or loss of voice after it has been once acquired.**
1. Absence of voice in negatively suggestible children
 2. Absence of voice in fear neurosis
 3. Fear of speech (phonophobia)
 4. Voluntary whispering
 5. Psycho-motor retardation (as in the non-reader)
 6. Voice amnesia
 7. Hysterical aphonia and aphemia
 8. Lack of phonation due to arrested development
 9. Partial arrest of lingual development."
- E. **Aphasia; Aphasia, partial or complete loss of speech**
1. Motor Aphasia
 2. Sensory Aphasia
 3. Agraphia; paragraphia
 4. Auditory Aphasia
 5. Associational Aphasia
 6. Transitory Aphasia
 7. Visual verbal amnesia
 8. Word blindness
 9. Word deafness
 10. Alexia; paralexia
 11. Ataxic aphasia
 12. Apraxia
 13. Anarthria (motor)
 14. Dysphasia
 15. Paraphasia
 16. Cortical and subcortical aphasia
 17. Transcortical sensory aphasia (with loss of comprehension of speech and writing)
 18. Word dumbness
 19. Subcortical sensory aphasia
 20. Cortical sensory aphasia

Chapter II

21. Amnesic aphasia
22. Broca's aphasia, (Motor)
23. Conduction aphasia
24. Gibberish aphasia
25. Mixed aphasia (motor and sensory)

F. Distonia: Vocal Defects of Quality
(Various subdivisions listed here)

A comparison of the above classifications reveals some points of similarity but many points of difference. The classifications following the chart were taken from the references cited below the chart; other subdivisions may possibly be found in other literature published by these authors. Undoubtedly the best attempt at reaching a solution of this problem of classification has been made by Dr. Stinchfield, primarily due to its comprehensiveness.

A new chart showing agreements and differences in either major or minor divisions would be very useful. Suffice it to say that in the eleven cases we find these agreements: (other agreements may be noted)

- 5 of the eleven classifications - Baby Talk
- 8 of the eleven classifications - Lispng
- 8 of the eleven classifications - Nasality, Nasal Speech, or Nasal Twang
- 8 of the eleven classifications - Foreign Accent (one of the eight is "Foreign Dialect")
- 8 of the eleven classifications - Stammering
- 10 of the eleven classifications - Stuttering

The above types of speech disorders may be encountered in the ordinary class room and are amenable to the aid which a teacher may give. In speaking of Foreign Accent, Dr. Stinchfield says:

"Foreign accent is not usually considered as a 'speech defect', but it is within the province of

Chapter II

the grade teacher to eliminate it, and she should also attempt to secure clear-cut, incisive enunciation from all of the children in her grade."1.

Whether it is a speech defect or not depends very largely on how you define a speech defect. When the definition, as given in Chapter I is kept in mind, foreign accent may legitimately come under the classification of speech difficulty.

Dr. Martin says on foreign accent:

"This is the largest class of speech defects with which we have to deal in the public schools of our largest cities."2.

The chief reasons for presenting the above general panorama of speech disorders are these:

- (1) We are able to understand the different writers much better;
- (2) It is easier to treat cases under a tentative classification;
- (3) A classification aids in showing the relative amount of time and study which should be spent on each type with reference to our school systems; and
- (4) It aids in differentiating major from minor types.

From this synthetic presentation I will now go to the analytical studies.

1. Stinchfield, "Speech Pathology", p.87.

2. Martin, "Manual of Speech Training", p.31.

Chapter III

DIFFERENTIATION- SYMPTOMS, CAUSES, AND TREATMENT OF IMPORTANT TYPES

This chapter heading is ambitious beyond the scope which may be allotted to it in this thesis. It shall be my purpose, therefore, to give suggestions of the line of approach to this study rather than give a compendium of all that has been written on these types or even of all that has been written recently on these disorders of speech.

The types to be presented are: Delayed Speech, Baby Talk, Lispings, Nasality and Nasal Twang, and Stuttering and Stammering. The manner of approach with each will be as given in the title to this chapter. The importance of this division needs scarcely any comment. If more writers had these steps in mind when discussing speech disorders, instead of spending all their time on descriptive accounts of the symptoms, much more actual results in improvement would be noted.

I. Delayed Speech

- A. Differentiation. According to Dr. Blanton, "The ordinary child should begin to use speech in a conscious way, in order to get what he wants, by the age of fifteen months. If a child cannot talk with some degree of efficiency by the time he is two and one-half years old, he should be given a very careful mental examination by a physician who is familiar with nervous diseases."¹

Although I do not agree with the following statement by Greene & Wells, there may be some truth in it:

1. S. Blanton, p. 262. Drummond's "Speech Training & Public Speaking"

Note: The underlining is for my own emphasis.

Chapter III

"Parents need not worry over the delayed speech of their child, even if speech does not develop until three years of age, as long as they are satisfied that the child hears well and is not mentally deficient."¹.

B. Symptoms - The symptoms are usually no speech at all a good part of the time or grunts, short phrases, and signs to get the wants satisfied.

C. Causes may be:

1. Lack of mental development.
2. Lack of necessity for speech.
3. Continued illness with extreme malnutrition during infancy.
4. Infantile neuroses."². "Or where there is delayed speech with normal mentality it is mostly due to environment such as where the parents talk little to the child or to each other and when there is great speed in conversation."³.

"Delayed speech is really undeveloped because of unstimulated speech."⁴.

In speaking of children whose speech is delayed, Greene and Wells say:

"Their delayed speech may be due to retarded mental development, to lack of aggressiveness to denote wants, the result of too much care and attention, to protracted periods of sickness during the developmental age of speech, to negativistic tendencies found in atypical children, that type of stubborn child who does everything badly, including the learning of speech."⁵.

-
1. Greene & Wells, "The Cause & Cure of Disorders of Speech", p. 18.
 2. Ibid
 3. W. B. Swift, "Speech Defects in School Children and How To Treat Them", p. 100.
 4. Ibid
 5. W. B. Swift, "Speech Defects in School Children", p.100.

Chapter III

- C. In the treatment of this type, with normal mentality, treat as in the development of simple speech:
 (a) Repetition of old utterances; (b) Applications of old words to new situations; (c) Addition of new words.^{1.}

Naturally a reversal of the causal conditions are of chief importance. Stimulation of the speech mechanism is necessary. If the child can always get the things he wants by a mere "twist of the wrist" there is no need for anything further from his standpoint. Less attention may produce beneficial results. Where there is an abnormal mental condition the child should be sent to a psychiatrist.

II. Baby Talk

- A. Differentiation from other types is made by Borden and Busse as follows:

1. "Only very young children indeed should be permitted to play with 'titty tats', get pains in their 'tummies' and ride on 'twolley tars'. Any expressions of this character which persist beyond the years normally allotted to infancy (1-6) may be properly considered as speech defects and classified under the general heading DEFECTS OF INFANTILE PERSEVERATION."^{2.}
2. "The perseveration of infantile habits of speech manifests itself in but two important forms of speech defect:
 - a. sound unit omissions
 - b. sound unit substitutions."^{3.}

1. Ibid

2. Borden & Busse, "Speech Correction", p. 130.

3. Borden & Busse, "Speech Correction", p. 130.

Note: The underlining is for my own emphasis.

B. Symptoms

1. Sound unit omissions

<u>"omission"</u> ¹	<u>Example of occurrence</u>
<u>L</u> as in Lake	'ittle for little peaz for please bow for blow
<u>Y</u> as in Your	foo for few poor for pure coot for cute poon for spoon pit for spit tand for stand ooze for whose ow for how
<u>S</u> as in Sink	bed for bread bake for break scape for scrape sop for stop"
<u>H</u> as in Hand	
<u>R</u> as in Roar	
<u>T</u> as in Town	

2. Sound unit substitutions

<u>"substitution"</u>	<u>Example of occurrence</u>
<u>F</u> as in Fine for	free for three fink for think
<u>Th</u> as in thin	wif for with
<u>V</u> as in Vine for	muvver for mother bruvver for brother favver for father
<u>Th</u> as in then	
<u>W</u> as in Watt for	wun for run twubble for trouble west for rest
<u>R</u> as in Roar	
<u>W</u> as in Watt for	wissen for listen pwace for place wunch for lunch
<u>L</u> as in Lake	
<u>W</u> as in Watt for	wewy for very wenture for venture womit for vomit
<u>V</u> as in Vine	
<u>Th</u> as in Thin for	thikth for six thimple for simple clath for class
<u>S</u> as in sink	

1. Borden & Busse, "Speech Correction", p. 130.

<u>Th</u> as in Then for	beca u the for because
<u>Z</u> as in Zino	clothe for close m u thle for muzzle
<u>S</u> as in Sink for	sin for thin sink for think
<u>Th</u> as in Thin	wiss for with
<u>Z</u> as in Zino for	uzzer for other muzzer for mother
<u>Th</u> as in Then	whizzer for whether
<u>S</u> as in Sink for	causson for caution sal for shall
<u>Sh</u> as in assure	sut for shut
<u>Z</u> as in Zino for	vizon for vision mesoor for measure
<u>Zh</u> as in azure	trezzer for treasure
<u>T</u> as in Town for	titten for kitten tayt for take
<u>K</u> as in Kate	told for c o ld
<u>D</u> as in Down for	dess for guess bid for big
<u>G</u> as in Gate	udly for ugly
<u>Y</u> as in Your for	yet for let yitti for little
<u>L</u> as in Lake	ayone for alone. ¹

C. Causes

Usually the persistence of baby talk is due to the parents trying to keep an only child or the youngest child from leaving off the childish traits which they love so well. For other possible causes, note the possible causes listed under lisping.

1. Op. Cit. P. 220-221.

D. Treatment

1. Borden and Busse give three valuable steps necessary to effect a cure:

- "1. Make the patient thoroughly ashamed of his defects.
2. Have the patient correct his defects through direct imitation of the instructor.
3. Fix the results of the treatment by persistent drill on selected exercises."¹

2. The Blantons stress the home life and say:

"The mother who has allowed this condition to occur should realize the serious harm she has done or permitted to be done to the child and force herself to refuse to answer any question or demand in which an attempt at normal speech is not made, and she should see that others surrounding him do the same."²

III. Lisping

- A. Differentiation - Infantile perseveration is a term that may be used to cover both baby talk and lisping. Baby talk may manifest itself in more ways than lisping for the latter is concerned only with defective pronunciation of the sibilant sounds whereas the former is concerned with practically all of the consonant sounds including the sibilant sounds. Lisping is really a form of baby talk.

Terman says:

"Lisping is the most common speech defect, especially in the lower grades and the pre-school period. It includes the inability to pronounce certain letters or combinations of letters, and the tendency to omission, transposition, substitution, or slurring over of sounds. It is found to greater or less degree in the speech of all young children and constitutes the

1. Op. Cit. p. 222-223.

2. Blanton & Blanton, "Speech Training for Children", p. 93.

most characteristic feature of 'baby talk'. It may be considered abnormal only when it noticeably persists beyond the age of 5 or 6 years."¹

"Lisping is a substitution of th voiced or voiceless for sh or s or z", according to Blanton.²

A better definition is: "In its broad sense, lisping is the faulty production of sibilant sounds." ³ (s, z, sh, zh). May K. Scripture includes the list of defective sounds and also states the importance of this type when she says: "Under the types of speech disturbances that demand articulation re-education, the forms that are most prevalent in our public schools and which need the careful adjustment in the earliest stages, are those of lisping due either to tongue protrusion or the substitution of a sound for s, z, sh, zh, ch, j."⁴

B. The most common manifestation of lisping is found in the substitution of th (breathed or voiced) for s or z. Ward says, in speaking of the commonest mispronunciations:

1. "The use of [θ] instead of [s] and of [ð] instead of [z].

This is the sound of ordinary lisping; the tip of the tongue is either between the teeth or against the edge of the front upper teeth."⁵

2. Another manifestation is in "The use of [ʃ] for [ʒ] (e.g. [ʃɔp] for [ʒɔp])."⁶

The lingual protrusion type of lisping tends to pre-
dominate over the lateral emission type.

-
1. L. M. Terman, "The Hygiene of the School Child", p. 338-339.
 2. Drummond, "Speech Training & Public Speaking", p. 266.
 3. H. M. Peppard, "The Correction of Speech Defects", p. 125.
 4. M. K. Scripture, "Pathology & Re-education of Speech Disorders", Vol. XII. No. 3, June 1926, p. 171.
 5. I. C. Ward, "Defects of Speech", p. 25.
 6. I. C. Ward, "Defects of Speech", p. 25.

C. Causes In general Terman gives a good statement as to the possible causes in this quotation:

"The undue persistence of lisping may be due:

1. to lack of practice in the proper use of the articulatory organs due to bad models in the child's language environment;
2. to weakness of the auditory center;
3. to incomplete development of the speech organs;
4. to anatomical abnormalities of teeth, lips, tongue, jaws, soft or hard palate, nasal or pharyngeal cavities, etc.; or
5. to a general deficiency of the motor centers.

The above factors may be operative in different combinations, and only a careful clinical study of the individual child will indicate the treatment necessary for a cure. Some of the lighter cases seem to be due either to a failure accurately to discriminate speech sounds, or else to carelessness or haste in their reproduction."¹

Blanton gives two organic causes:

(a) Malocclusion of the teeth and (b) Poor dental arch.

But concerning the organic basis as being predominant he has this to say:

"Our observations, however, have led us to believe that only a minority of these cases are caused by organic abnormality.....There is only one type of malocclusion that we know will cause a lisp, and that is a marked protrusion of the lower jaw.

The majority of these cases are caused by emotional conflicts of one sort of another. Many of them are due to a retention of infantile emotional habits."² Further on he says: "The individual with an infantile lisp does not wish to detach himself, at least psychologically, from his childish attitudes and surroundings, and so retains a type of speech which was perhaps legitimate at the age of three."

1. Terman Op. Cit. P. 339-340.

2. Blanton, P. 267. Drummond's "Speech Training and Public Speaking"

Note: Underlining is my own.

With reference to lateral lispings, Mrs. Scripture remarks that "Lateral lisps on these sounds are caused by the misdirection of the air on the tip of the tongue, which misses its central course and slides over to one or both sides of the tongue."¹

That is what takes place, a manifestation which it seems essential that we do not confuse with an actual cause. What causes this misdirection of the air current is the question to keep in mind.

D. Treatment

Just what should be the first step with each case is difficult to say; in general a desire for good speech should come first. Mrs. Scripture indicates the difficulty in the following excerpt:

"The course to pursue in the correction of these mispronunciations (i.e. 'lispings due to tongue protrusion or the substitution of a sound for s, z, sh, zh, ch, j.')

usually be various, depending upon the mental concepts, the clearness of hearing, the acceptance of fine detail, the control of breath, the adjustment of the delicate tongue contacts for these sounds, and upon the study of comparisons..... Usually these lateral lisps require quite some attention to the setting up of a distraction, for the patient becomes very self-conscious when drilled upon the mouth gymnastics necessary for the correction. If melody on a vowel could be induced by using the word many times without the offending consonant and gradually slipping in the initial S or Z, much of the air stream will be directed away from this noisy difficulty. For infantile speech, the corrective measures will be mostly through imitation, but may be supplemented by very careful work with a tongue applicator touched to the very tip of the tongue several times before the pronunciation of words like say, soup, and soap."²

-
1. M. K. Scripture, Op. Cit. P. 171.
 2. M. K. Scripture, Op. Cit. P. 71.

Specific aids in eliminating fear and other emotional disturbances before treatment may be found in Burnham's remarkable book "The Normal Mind."

Among some of the outstanding suggestions are these:

...."But parents and teachers can render children largely immune to fear by developing attitudes of interest, especially the learning attitude, out of the more fundamental attitude, of curiosity." (p.296)

"In rough outline the mechanism of fear is simple. Primarily, it is determined by the physical condition of the individual. It is a matter of endocrine glands, digestion, and sleep. From another point of view it is a matter of stimulation, association, and training." (p. 417, 418)

"The original stimuli that cause fear may be summed up briefly under one general statement as follows: any sudden or violent change of stimuli produces fear, and thereafter anything that may become associated with the primary causes of fear may likewise produce the same emotion." (p. 418)

"The methods of removing conditioned emotional responses, as summed up by Watson from the point of view of his laboratory studies, are distinctly in harmony with what has been stated.

Among the methods suggested are the following:

1. Constantly confronting the child with the stimuli that called out the fear responses, in order that dulling by habituation would occur;
2. by trying to recondition by showing objects calling out fear responses simultaneously with stimulation of tactual erogenous zones;
3. by trying to recondition by feeding candy or other food simultaneously with the fear-exciting stimulus;
4. by building up constructive activities around the object by imitation and by putting the hand through the motions of manipulation. Imitation of overt motor activity is strong at this age, according to Watson's experimental results." (p. 419)

Chapter III

It might well be added that some cases demand relatively little emotional reeducation but too often, no doubt, phonetic drills are given without much, if any, attention to the emotional factor.

Blanton gives two steps in treatment which are noteworthy: "1. Emotional reeducation. 2. Phonetic reeducation." In particular he states a factor that is often overlooked, and which I am attempting to stress in this thesis:

"Even in those cases that are the result of organic difficulties there will be certain fears and emotional reactions connected with the speech which must be eliminated before a cure can be effected. In treating this defect the teacher must do three things:

1. He must determine the position of the speech organs in the incorrectly made sound;
2. He must know the position of the speech organs in the correctly made sound;
3. He must be able to determine what over-reaction of the articulatory organs is likely to give the sounds desired."¹

In Barrow's and Cordes' book "The Teachers Book of Phonetics", there is an excellent chapter on "First Aid to Correct Utterance." The authors give practically the same procedure as that outlined for the teacher by Dr. Blanton. They say:

"If we would correct the child's speech difficulties, we must know certain things:

1. We must know how the sounds of English language are formed and how our own speech organs function in forming these sounds.
2. We must know how to diagnose the child's difficulties. The diagnosis must reveal two things:
 - a. The nature of the difficulty....
 - b. The cause of the difficulty.

.....
3. We must know how to help the child to overcome his difficulties."²

1. Blanton P. 268. Drummond's "Speech Training & Public Speaking"
 2. P. 11,12,13.

These authors could emphasize the emotional side more, as Blanton does, but they give instructions for dealing with the child where reeducation is not so necessary as later on. However they warn in italics: "Do not make the child self-conscious." And several other authors have emphasized that point by saying that too much emphasis of the child's speech may lead to stuttering.

In my own case, these steps have been found useful:

1. Production of the correct sound for imitation by the child.
2. Imitation of the incorrect sound to find out just what maladjustments of the articulatory mechanisms occur.
3. Overdoing in the production of the correct sound to get the desired result.
4. Drill in the production of the correct sound.

These steps are from the phonetic standpoint; one should attempt before doing this to create an air of freedom and relaxation----a friendly spirit. This is kept up throughout the regular conference.

But what is the correct position for the tongue to assume in producing the sibilant sounds? (for it is the tongue which fails to function properly.) Barrows and Cordts give these directions for producing the[S] sounds.

"Bring the sides of the tongue against the upper side teeth, forming a narrow groove down the middle of the tongue. The tongue tip may be raised toward the gums back of the front teeth, or lowered, (footnote-- Those who form s with the tongue tip down should be

careful to use sufficient tongue pressure, or the s may be lisped) touching the inner surface of the lower front teeth. The lips are parted. The lower teeth approach the upper, intercepting the breath. The Velum rises, closing the nasal passage. The vocal cords do not vibrate.

Force the breath in a fine stream through the narrow central groove of the tongue so that it strikes against the lower teeth and escapes between the teeth in a continuous stream with audible friction."¹

The advice of Peppard is interesting as to the correct tongue position. I will give the full context:

"Infantile lisping usually develops during the period of second dentition. The loss of the front teeth forms an opening and the tongue, not under sufficient control, slips out through this opening and we get the thin place of the s. Fortunately, in the majority of cases the speech regulates itself when the second teeth grows in. In many instances, however, the tongue continues to protrude when producing the s, t, l, d, or n, and the lisping habit is confirmed.

To correct this form of lisping, it is necessary to strengthen the muscles of the tongue and get them under automatic control. To do this, tongue exercises should be given and the correct position for s, z, sh, zh should be taught. In correcting the sound s, better results will be obtained by teaching the lower position placing the tip of the tongue back of the upper front teeth."²

Ward gives these directions:

"For [S] and [Z] the blade of the tongue is raised so that it nearly touches the teeth-ridge, and the air escapes over the top of the tongue in a narrow channel. (Dee Diagram 12) In all attempts at correction of a wrong sound, this is the position to be aimed at."³

1. Op. Cit., P. 87,88.

2. "The Correction of Speech Defects", p. 126.
(Underlining my own)

3. "Defects of Speech, Their Nature and Their Cure", p. 24.

But confusion is added by "diagram 12" Ward refers to. A dotted tongue tip indicates a lowered position behind the lower teeth and a black tongue tip points to the teeth-ridge of the upper front teeth. Below the diagram these words are attached "S, z with tip of tongue behind bottom teeth."¹ Since most of the correct positions for the tongue are indicated in black and since Diagram 16 (p. 77) gives the upper position for the tongue, both for [s] and [ʒ], evidently the latter position is the one intended. Furthermore, the author says:

"My thanks for the use of the diagrams are due to Professor Daniel Jones, whose help it is impossible for me to acknowledge adequately."²

A distinguished authority on phonetics like Daniel Jones would not be likely to advocate a lowered tongue position for the production of the s sound.

Borden and Busse give the following explicit directions for the production of s:

- "1. Block the nasal outlet of the respiratory tract by raising the soft palate against the pharyngeal wall.
2. Groove the tip of the tongue and adjust it against the gum ridge of the upper teeth in a manner to form the minute articulatory aperture shown on the accompanying palatogram. (fig. a).
3. Expel a current of unvoiced breath through this aperture."³

Stinchfield agrees on the upper position for normal speech and states that, "some speakers pronounce the sound with the tip of the tongue lowered, but the majority of speakers use the raised position (against upper teeth.)"⁴

1. Op. Cit., p. 75.

2. Op. Cit., p. VI.

3. "Speech Correction", p. 89.

4. "Speech Pathology", p. 109.

Chapter III

My own findings corroborate this last statement and consequently I teach the tongue position as given above by Borden and Busse. However, it seems necessary to keep in mind that an abnormal mouth, -- in dental occlusion, or in the shape of the palate, may necessitate a different tongue position. As Swift points out, a normal method cannot be used with abnormal cases; here he was referring to the use of normal phonetics as not being suited to an abnormal mental condition.¹ Note the case of lisping accompanied by "open bite" (failure of the teeth to come together in front) in the chapter on "Case Studies."

Various special devices cannot be gone into here, such as Ward gives in Chapter III of her book, but these general suggestions which she gives should be heeded throughout the treatment:

"In this, as in all other cases, the pupil will do well not to attempt to introduce his newly acquired sound into words and sentences, until he is able to make it with ease in isolation.....The teacher should try each of these methods and work from the more successful.....When the pupil can say [s] readily, it should be practiced initially and finally, e.g. [si, ðis]; and to teach its use before consonants it is well to break up the words into single sounds or groups, e.g. [l- -s- -t], [s- -lou]."²

With the voiced sibilants, the best way to demonstrate their difference from the breathed sounds is to have the pupil put his finger tips on his larynx to feel the vibration which occurs with the voiced sounds.

1. "Speech Defects in School Children", Chapter VI.
2. "Defects of Speech", p. 24, 26, 29.

To recapitulate the treatment for lispng, these steps should be followed in most cases:

1. Inculcate a desire for good speech.
2. Eliminate fears and other emotional disturbances.
3. Produce the correct sound for imitation and use model diagrams, in addition, for an older person.
4. Imitate the incorrect sound as given by the pupil in order to properly understand his difficulties.
5. Give tongue exercises for limbering up the tip of the blade of the tongue.
6. Get the pupil to produce the correct sound alone--- sometimes by means of a glass rod in order to get the grooved tongue position.
7. Practice on the sibilants initially, finally, and with consonants.
8. Drill on words and sentences containing sibilants.
9. Drill on verses and longer discourse containing sibilants.

The following exercises are good to begin with:

"Exercise I.

S-S-S-S	Z-Z-Z-Z
Ss-Ss-Ss-S	Zz-Zz-Zz-Z
Sss-Sss-Sss-S	Zzz-Zzz-Zzz-Z

Exercise II.

Sah, say, see, saw, soh, soo.
Zah, Zay, Zee, Zaw, zoh, zoo.

Exercise III.

Ay-say, ee-see, oh-sow, oo-soo.
ay-zay, ee-zee, oh-zoh, oo-zoo."¹

1. Stinchfield, "Speech Pathology", p. 110.

Other exercises may be found in: F. L. Martin's, "Manual of Lispers", also his "Manual for Speech Training"; Birmingham and Krapp, "First Lessons in Speech Improvement", p. 38-66; Stinchfield, "Speech Pathology", p. 110-114; and Barrows and Cordts, "The Teacher's Book of Phonetics", p. 18-22.

IV. Nasality and Nasal Twang

- A. Differentiation. Reference has already been made in Chapter II to the difference between nasality and nasal twang. Nasality is a pathological excess of nasal resonance.

"i.e., speech in which the vowel and consonant sounds, properly resonated by means of the oral cavity alone, are resonated partly in the oral and partly in the nasal cavity."¹

Nasal twang is a pathological deficiency of nasal resonance particularly on the m, n, and ng sounds.

- B. Manifestation. Both types are characterized by unpleasantness to the hearer. The degree of manifestation varies greatly depending, in the case of nasality, on the speech habits of the individual, for the most part, and in the case of nasal twang on the degree of organic abnormality. In nasal twang the individual talks as if he had a cold in his head. In speaking of adenoid speech, which I am calling nasal twang, Ward says:

"In such cases a speaker is unable to pronounce the nasal consonants [m, n, ŋ] (in which the mouth passage is stopped and the air escapes through the nose.) Instead of these sounds he

1. Borden & Busse, "Speech Correction", p. 233.

Chapter III

uses the corresponding voiced stops [b, d, g] i.e. he says [gʊd bɔ: dɪg] instead of [gʊd mɔ: mɪŋ]. With some speakers [m] is replaced by [l]; I have noticed it particularly in 'pencil', which is often pronounced [peɪsɪl]."¹

Note Chapter IV for key words which accompany the phonetic symbols which are given here.

C. Causes. Borden and Busse give the following causes for a pathological deficiency in nasal resonance:

"(a) deviate septum, (b) nasal polypi, (c) adenoids and (d) nasal catarrh. For a pathological excess of nasal tones, the instructor should make inspection for (a) cleft palate and (b) velar insufficiency."²

Avery makes this remark which I have found to be true:

"Undue tension of the throat and tongue also contribute to the total effect which is called nasality."³

In speaking of adenoid speech, Ward says:

"There are people, however, who speak in this way (note citation from Ward under Manifestation) without having adenoid growths, merely through careless habits possibly set up through frequent colds. The teacher should ascertain in every case if the pupil has some physical cause for this kind of speech; if not, he should endeavor to correct him."

That there are other than organic causes seems certain.

Furthermore, the mental attitude of the individual often seems to be a predisposing cause as may be seen from the case studies which are to be presented.

-
1. "Defects of Speech", p. 47.
 2. "Speech Correction", p. 239-254.
 3. Elizabeth Avery, "Some Practical Applications of Phonetics in the Teaching of Speech," Q. Jour. Sp. Educ., Vol. XIII, No. 3, June, 1927, P. 295.

D. Treatment. For the treatment of a pathological deficiency in nasal tones, a nose specialist should be consulted and, in some cases, surgical operations will be necessary to remove the nasal obstructions.

Borden and Busse recommend after the diagnosis for the causes of a pathological excess of nasal resonance has been made, that we

- "2. Urge the patient to correct these causes by submitting himself to proper medical treatment.
3. Assist the reeducative process by:
 - (a) phonetic explanations;
 - (b) maxillary, labial, lingual and velar gymnastics and
 - (c) trial and error drill."¹

I have found it helpful to have the individual practice making a "forward tone", especially practice with the front vowels. This will be explained in the Chapter on case histories.

Helpful suggestions are given by Avery as follows:

"Most college students work with more zeal and intelligence when told that a vowel or a consonant made with lowered soft palate is a nasal sound and that, since there are only three legitimate nasals in the English language, they must learn to counteract the perfectly natural tendency to allow the palate to remain low in speech as it does in quiet breathing. If they then observe the action of the soft palate to remain low in speech as it does in a mirror, and learn to feel the difference between a raised and lowered velum, and to hear the difference in the sounds formed with the velum in the high and in the low position, they have made a start in the right direction.

....When the student has learned to maintain the velum in this high position without strain, the next step is to acquire the

1. Op. Cit.

ability to raise and lower it with ease and lightning speed in going from nasal to oral sounds. To accomplish this, the teacher may give any of the exercises for the cure of nasality---alternating the velar nasal and a or the oral and the nasal a, with increasing rapidity, or the tai-tai-tai-taim, tai-tai-tai-tai-tai-tai-taim exercise. Another excellent exercise is the old zu-zu-zu-zu-zu-zu-a-ei-i-ou-u, said or sung on the notes do, mi, do, mi, do, mi, do; do, re, mi, fa, sol.

....Exercises for firm closure and quick release of plosives are therefore of the greatest help in overcoming nasality....

.....s, properly articulated and prolonged as an exercise is as useful in securing forward articulation as in correcting nasality."¹

Ward gives the following steps to follow in curing "nasal twang":

- "The first thing to be aimed at is the control of the soft palate.
1. The teacher should test all sounds, vowels and consonants, find out which of them are free from nasality, and work from these.
 2. If all the vowel sounds are nasalized, it is useless to begin from one of them.
 3. If all the vowels are nasalized it is best to begin with [z]The vowel [a:] seems to lend itself most easily to nasalization; it is therefore advisable to leave this sound till the last.
 4. Along with the above, other exercises designed to give conscious control to the soft palate should be practiced, for the pupil who realizes the sensation of pressure exerted by the soft palate when closing the entrance to the nose will find little difficulty in getting rid of his nasal twang.
 5. Most people can pronounce the last syllable in the word 'mutton' [mʌtʌn] ([tʌn] with no vowel between [t] and [n]).

1. Op. Cit. Quar. Jour. of Sp. Educ., Vol. XIII, No. 3, June 1927, p. 294-297.

6. A final exercise, more difficult than those already given is to alternate an oral and a nasal vowel [ã ã, ɛ̃ ɛ̃], when the pupil directs the breath stream alternately through the mouth and through the nose as well as the mouth by the movement of the soft palate.
7. When the vowels can be pronounced in isolation without any nasal tone, and not before, they should be practiced in words.¹

Further exercises may be found in Birmingham and Krapp, "First Lessons in Speech Improvement"; also, "Speech Pathology", (p. 114.) by Stinchfield.

V. Stuttering and Stammering

- A. Differentiation. There are different conceptions of the words stammering and stuttering.

Dictionaries usually use the two terms synonymously as Borden and Busse use the terms. Common accepted usage seems to accord with that given by dictionaries. Martin, McCullough, Birmingham and Tompkins refer to stuttering as an incipient form of stammering. Martin is quite clear on this point; McCullough and Birmingham, in speaking of the stuttering condition say:

"This is usually the step which precedes stammering."²

Contrary to M. K. Scripture's and Fletcher's usage of stammering as a defect of pronunciation (from the German "Stammeln") and stuttering as difficult speech (from the German "Stottern"),

1. I. C. Ward, "Defects of Speech", p. 43-46.
 2. McCullough & Birmingham, "Correcting Speech Defects and Foreign Accent", p. 3.

Tompkins refers to the German "Stottern" as stammering. Furthermore, he says:

"Uncorrected stuttering soon develops into stammering."¹

For my own part, I refer to stuttering as an incipient form of stammering. McCullough and Birmingham give my present conception of the difference between the two terms when they say:

"Stammering is a condition in which speech is apparently impossible for the moment.....On the other hand, the stutterer is able to produce speech. In fact, he seems to be afflicted with an overabundance of speech. Therefore, it might almost be said that the stutterer cannot stop speaking, while the stammerer cannot begin. This repetition of the stutterer may be upon a letter, a syllable, a word, or a phrase; he may say p-p-please; or pa-pa-patience; or put-put-put it down; or may I - may I - may I have it? This is usually the step which precedes stammering."²

Previously in my speech correction work I have referred to this last condition, i.e. "Put-put-put it down", as "Speech hesitation".

Mrs. Scripture significantly differentiates stuttering from other disorders thus:

"Stuttering is to be differentiated from other speech defects, first on the ground of its intermittent character; second, by reason of the fact that it is not often associated with organic lesions; and third, by reason of the fact that it

-
1. Quoted by Hiser at the University of Illinois, "Preliminary Survey of Speech Defects among Freshmen at the University of Illinois." p. 34.
 2. Op. Cit.

is conditioned on certain states of mind in the form of emotions, feelings, attitudes, and ideas. Thus these various symptoms of the stutterer may be divided into three general headings: first, physiological; second, psychophysical; and third, mental."¹

Much help will result from the work of a special committee of the "American Society for the Study of Speech Disorders" which is publishing a tentative classification and suggested terminology to be used.

B. Symptoms. Again Scripture well depicts the symptoms:

- "1. Cramps of Spasms of Speech Muscles.
 - a. Abdominal cramps, always
 - b. Expulsion of breath before breathing
 - c. Continual irregularities of breathing during speech.
2. Laryngeal Cramps
 - a. Muscles become tense and fixed
 - b. Tone becomes monotonous, hard, and often husky.
3. Cramps and Spasms of Muscles of Enunciation
 - a. Lips pressed too tightly together--short or long time; or will open and shut, producing a series (P, B, M) of sounds.
 - b. Tongue pressed too tightly against hard palate (T, D, N)
 - c. All sounds may be similarly affected.
4. Contraction of Muscles not ordinarily used in Speech.
Example: twist head; screw up eyes; contort body; grimaces; tongue stuck out between lips; grunting; whimpering.
5. Over-tenseness or Hypertonicity of all Muscles Involved in Speech (psychic).
6. Starters: 'er, well, now, why, etc.
 - a. Inarticulated but complicated grunt.
 - b. Repetition of starters:
7. Excessive Rapidity of Speech
 - a. Mental haste
 - b. Nervous anxiety
8. Lack of Confidence in Ability to Speak Well.
Fear; watching too far ahead for words he cannot say; nervous prostration; fear of being ridiculous; mental flurry; hesitation in thought; increased sensitiveness; sadness; bravado."²

1. M. K. Scripture, "Quar. Jour. of Speech", Vol. XII, p. 151, 1926.

2. M. K. Scripture, Ibid, p. 150.

C. Causes. While I do not propose to go into a detailed discussion of the various theories for Causes of Stuttering which have been advocated in the past and at present, I want to present in a concise manner some of the leading theories which have influenced the present day work in correction. The best concise presentation I have found is that by M. K. Scripture. I will now give it for it leads up to practically the same conclusion I have reached with reference to stuttering.

"Upon the subject of "Stuttering" the following theories will suffice to show that there has been many attempts at an explanation, but few of them satisfy..... Dr. Hudson Makuen stated that the most important factor in the etiology of stuttering was heredity, and this notwithstanding the fact that stuttering is an acquired affection, in the sense that speech itself is an acquired faculty.

Gutzmann, besides agreeing that heredity is a very important factor, tells us that he considers stuttering, more or less, a matter of temperament, claiming that most stutterers are excitable and hasty.

Some authors, like Schrank, believe that stuttering is mostly found among the mentally deficient and feeble minded children (we rather think, with Gutzmann, that non-intelligent children are more inclined to lisp than to stutter.) (Note Scripture's Classification in Chapter II).

Blume holds that the most immediate cause for stuttering is a disproportion between thinking and speaking, i.e. that the command of language does not keep pace with the development of the thinking powers, or that the process of thinking is too fast for the undeveloped articulatory organs to express.

Liebmann considers nervousness as the real foundation (both hereditary and acquired) for stuttering, and lays special stress on the abuse of alcohol and masturbation.

Schmalz considers a cramped condition of the vocal cords a primary cause for stuttering.

Merkl believes that stuttering is of pure psychic origin, while Rosenthal and Benedict consider it a 'Coordination Neurosis.'

Wineken thinks that in all stutterers the will power is bounded by doubt (language doubt).

Coen believes that all stutterers show some nutritive disturbance of the organism or some underdevelopment of the thorax. There is great exception taken to this theory because it is well known that many stutterers are Herculeans in stature and health.

Berkhan considers that rickets is the main etiologic factor in stuttering and says that the changes of the palate and jaw in rickets are similar to those met with in idiots, imbeciles and deaf-mutes.

Freud, Steckel and some other psychologists believe that stuttering is the outward expression of an inward mental conflict.

Hoepfner compares active stuttering with the complicated processes of learning to walk. He claims that a stutter is delayed by strong cramp-like movements when he endeavours (as in accomplishing the act of walking) to overcome any defects by reflecting upon them.

Froeschel thinks that the nucleus of stuttering lies in the psychic condition of the patient who becomes conscious of the ataxically disturbed speech movements.

Nadoleczny considers the exigencies of the first few school years as the momentous factors of stuttering.

Kraepelin suggests that the psychic disturbances are two-fold, -- expectation neurosis and anxiety, the former of which causes the unconscious twitching (impulses of activity) of the muscles of speech, and the latter increases the stuttering because the fear of being laughed at, reproved or scorned, increases the anxiety."

Scripture states in his 'Stuttering and Lispings', that the most frequent cause of stuttering is a nervous shock. Serious falls, ghost stories and practical jokes and terrifying experiences, such as are met with at amusement resorts, are often causes for these mental shocks. Then he says there is a mental contagion by intentional or unintentional imitation; the condition of exhaustion that follows diseases, such as whooping cough, scarlet fever, measles, etc., and a neuropathic disposition.

Bluemel considers that stuttering is due to a transient auditory amnesia.

Browning says that 'stammering appears in many cases to be associated at the start with large thymus, if not directly caused thereby'. (A possible connection with either the endocrine glands in general or the thymus in particular.)

Swift thinks that stuttering is an absent or weak visualization at the time of speech.

Kenyon says: 'In all the multitudinous efforts to solve the etiology of this distressing disorder, no direct effort has been made in this connection, as far as the author knows, to analyze either the physiologic difficulties involved in speech development, or the bearing on the problem of the psychology of the speech developing child, and yet certainly more than 95 percent of the cases of stuttering developmental processes of the speech development period, involve gain control of the complex speech function!.....

Now, turning to another medical point of view, we have Dr. Smiley Blanton on 'The Medical Significance of the Disorder of Speech' in which he states that 'The speech area has not been demonstrated in the brain at birth, and

the development of speech is not inevitable. An intact auditory apparatus, the presence of intelligence, and the intact nervous and muscle system are required for its proper development, plus certain emotional and social demands and situations, under the stimulus of which it is organized. In speech disorders, there are early and invaluable symptoms of anomalies of intellectual and emotional growth, as well as organic difficulties of the nervous system!..... Among his conclusions, he believes that there is some fundamental weakness in the motor mechanism, but that stuttering results depend not only on the degree of the weakness in the mechanism, but also on the ability of the individual to protect this mechanism from undue strain.

Fletcher's opinions upon the etiology of stuttering are so scientifically sound, they make a fitting climax to all these varying theories just quoted, regarding, as he says, (this old, old malady, whose record dates back at least to the Egyptian hieroglyphics.....Again, Fletcher says, 'Two conclusions seem inevitable, first, that stuttering is a mental defect and second, that the treatment of it should be primarily educational rather than medical. Both the physician and the psychologist of the present day are having more problems thrust on them than they can solve, and neither is anxious to assume new burdens. Yet in the interest of suffering humanity, it seems to me to be time for the two sciences to come to an understanding regarding the matter of laying aside the subject of scientific and professional jurisprudence; it should be emphasized that this problem is too big to be handles by the side-line practice of the physician.'¹

For further exposition and criticism of theories of stuttering and stammering the reader is referred to Bluemel's two volumes, entitled, "Stammering and Cognate Defects of Speech"; Appelt's, "Stammering and

1. Fletcher, "The Problem of Stuttering", p. 166.

Its Permanent Cure"; and Fletcher's, "The Problem of Stuttering". The last named book is probably the ablest presentation and criticism of modern theories of the cause and treatment of stuttering.

Fletcher says:

"By every rule of scientific induction it seems to be established that a subtle form of emotional reaction, whose chief component is fear, which is set off by the realization of a certain social relationship existing between the speaker and his auditors, together with the anticipation of the possible unpleasant consequences of failure, must be held primarily responsible for stuttering."¹

A concrete and comprehensive statement of the possible causes is given by M. K. Scripture as follows:

C. Causes

- "1. Nervous shock from:
 - a. Severe falls
 - b. Ghost stories
 - c. Practical jokes
 - d. Surgical operations
2. Intense Fear
3. General Overanxiety or Psychoneurosis
4. Mental Contagion (Imitation, parents, friends, deaf-mutes)
5. After Whooping Cough and Other Children's Diseases (exhaustion).
6. Spastic Infantile Paralysis (difficulty in using muscles of speech).
7. Neuropathic Condition
8. Nervous Exhaustion
9. Left-handedness
10. Speech Conflict.²

D. Treatment of Stuttering and Stammering

Any method of treatment is largely dependent upon a thorough understanding of the causes involved; hence the above presentation of theories as to causation

1. Fletcher, "The Problem of Stuttering", p. 166.

2. M. K. Scripture, Ibid

should be of some emotional disturbance is at the root of the majority of cases of stuttering and stammering it is well to consider some of the characteristics of the neurotic. According to Adler the neurotic;

1. Postpones Decisions.
2. Vacillates, doubts, fears.
3. Tends to degrade others to secure a feeling of worth.
4. Realizes the necessity of avoiding pain and obtaining pleasure.
5. Rationalizes and suffers defeats.
6. Is peaceful only when an attack is behind him.
7. Has a false perspective. "He over-rates the situation, consequently, and believes that his whole happiness in life, his whole success is at stake. Of necessity he falls into a state of tension which no human being can bear."¹

Not all of these traits can be applied to a stutterer or a stammerer but one or more are usually present.

It is very important that the reader keep in mind that I am not attempting to give a plan of treatment for incipient cases of stuttering and stammering. Some admirable work is being done in this connection, especially where speech workers are working in conjunction with habit clinics as in the Massachusetts Child Guidance Clinic in Boston. Chief concern at this time is laid upon the procedure with those chronic stubborn cases which are usually so difficult to handle.

When we are confronted with a severe case of stammering or stuttering, it is advisable to have

1. Adler, "Understanding Human Nature", p. 210.

more than one mode of procedure. But to tell a person that you do not have any one definite procedure is of little value to him and, furthermore, it implies that you yourself may have only a vague idea of the problem. Each individual has certain peculiarities which demand a difference of treatment from that of others. My chief concern here is to point out the main route to take, though devious by-ways may get different workers to the same point. Not all workers can succeed by the same prescribed method; hence, the great success which may be attributed to a variety of methods. At any rate, there seem to be elements in common which may be spoken of at this time.

I have already outlined some of the chief characteristics of the neurotic. It seems necessary to point out that these traits become pathological when they persist and carry over into the overt behavior of an individual. As McDougall says:

"We have seen that conflict and repression are the great agents of neurotic disorder."¹

The schizoid existence resulting from conflict and repression must be corrected in order to ensure a perfect integration of the personality. As Stekel points out:

.."neuroses are the results of unsuccessful repression.....the symptoms are

1. McDougall, "Outline of Abnormal Psychology", p. 476.

a compromise between affect and repression."¹

It is not that "conflict and repression" are bad in themselves; in fact, they have a useful role in normal mental life. But where they persist unduly, the tension becomes unbearable.

To-day among the higher grade of speech specialists there seem to be two main methods the psychiatric approach, more in particular that branch of psychiatry which makes use of the principles of mental hygiene. Second, there is the psychoanalytical approach which seems to be growing into disfavor, mainly due to the lack of results achieved thereby and due to the quicker results by other methods which are embodied largely in the application of mental hygiene.

Some form of an analysis is necessary if we are to find the causal factors involved. The following psychotherapeutic methods are to be noted:

1. Confession.
2. Frank Discussion.
3. Suggestion--the individual may use auto-suggestion.
4. Persuasion--practice--demonstrating to the individual that often he can do things that he thought he could not do.
5. Methods of recall.
 - a. Re-memory.
 - b. Objects.
 - c. Infer by analysis that certain things must have occurred.
 - d. Word--association.
 - e. Recall under moments of abstraction.

1. Quoted by McDougall, Ibid.

Chapter III

- f. Crystal gazing.
- g. Hypnosis under certain conditions.
- h. Dreams
- i. Automatic writing.¹

Freud insists upon the childhood life as the time when neurotic disturbances arise, but Moore says:

"I would not maintain that my analyses have been adequate, but I have found that as far as therapeusis is concerned, it is not necessary to trace the symptoms back to childhood in order to effect a cure. Many of my cases have seemed to have their explanation in conflicts of the present, and not of the past.Freud's tendency to generalize has here again obtained the upper hand."²

Then, with Freud, a cure is to be expected by mere analysis, a kind of catharsis; whereas Jung and Moore usually insist upon a Psychosynthesis in addition. This, then, is one of the first criticisms of psychoanalysis, -- largely a method of recall under psychotherapeusis.

In condemning the use of psychoanalysis, Fletcher says little about its good points; such a criticism is destructive instead of constructive. There are certain psychoanalytical procedures which may well be of service. In speaking of psychoanalysis as a method Moore says:

"Some have maintained that what it (psychotherapy) does is to enable us to understand mental disorders and not to cure them. However, there can be no doubt

1. Note McDougall Op. Cit. Chapter XXIX. Also lecture notes from Mr. McGinnis, University of Maine.

2. Moore, "Dynamic Psychology", p. 261.

that in some cases, it does bring about a cure." Three limitations are given:

- I. Limited by the mentality of the patient.
- II. Limited by the time factor.
- III. Limited by the type of disorder."

Again he remarks, "In my experience, psychoanalysis is of particular value in the parataxes of anxiety in civil life.... But where the relation to a complex in the past is not so marked, and the conflict of the present is the dominating factor, psychoanalysis may help, but it does not cure..... It is necessary that one should not only analyze, but as Jung says, one must also synthesize in the sense that he not only puts together the fragments of the patients' past experience, but also enables him to work out a harmonious adjustment of his inner drives with the problems and opportunities that confront him."¹

It is well to note the factors that contribute to a cure by psychoanalysis, as outlined by Burnham:

"From a psychological point of view, then, among the factors that contribute to cure in psychoanalysis the following are fairly obvious, as we have seen:

1. The fact that the patient is brought by this means to face reality;
2. The opportunity for normal reactions to feeling;
3. The stimulus of a new idea brought into the mind of the patient by the psychoanalyst;
4. The coordinated thinking that results;
5. The sympathy of the psychoanalyst;
6. The reenforcement of the stimulus to a new course of thinking by the emphasis furnished by the psychoanalyst;
7. The success in the mental field which the patient achieves by his new line of thought;
8. The stimulus from the halo of the unconscious."²

1. Moore, "Dynamic Psychology", p. 260-261.
(Underline mine)

2. "The Normal Mind", p. 634.

McDougall says:

"In all psychotherapy there are two essential steps: first, the process of exploration by which the nature and origin of the morbid state are as far as possible brought to light and made clear to the patient; secondly, the process of readjustment of the patients mental life, more especially of his affective tendencies." As to the use of readjustment he says, "It covers and includes all such processes as may be denoted by the terms 'persuasion', 'reconditioning of reflexes', 'reeducation', 'resetting of impulses', 'autognosis', 'facing the problem', 'resolving the conflict', 'learning to cease repression', 'sublimation', 'harmonisation of purposes', 'reintegration of the personality', 'achievement of adaptation', 'building up the character', 'strengthening of the will.'"¹

What to retain in the psychoanalytic approach is a question, but McDougall gives an exceptional resume' as follows:

"I believe in the value of mental exploration as deep as the case requires; and I regard free association and dream-analysis as important methods of exploration. But I also hold that exploration in hypnosis is in many cases useful and entirely justifiable. I believe that conflict and repression are principal factors in the genesis of functional disorders; but I believe that sexual difficulties are one of the great sources of disorder; and that early sexual strivings and repressions may in some cases prepare the way for later disorder."²

While Fletcher and Mrs. Scripture condemn the psychoanalytic approach, Borden and Busse say:

"The psychoanalytic treatment for stammering yields satisfactory results in the great majority of cases and is the only system of therapeusis that holds out the promise of a scientific, permanent cure."

1. "Outline of Abnormal Psychology", p. 464, 470.

2. Op. Cit., p. 480.

Again Nove Ovalla Hiser says:

"Psycho-analysis or mental analysis is the most recent development in the scientific world to relieve the speech defective. It places stammering on the same plane with all phobias and obsession, and has in its method of treatment the aim to remove all inhibitions which interfere with normal innervation of speech."¹

Appelt's book is "A Treatise on Psycho-Analytical Lines." An exceptionally good presentation of the therapeutic procedure of psycho-analysis is given in Chapters eight and nine.

Stekel seems to believe whole-heartedly in psycho-analysis when he says that -

"...in the future only psycho-analysis can be the therapy for stuttering."²

Again he remarks:

"The only right way is that which I have taken in every parapathy; a thorough psycho-analysis, with which in slight cases one often attains the goal in a surprisingly short time."³

In speaking of a case of stuttering, he says:

"Success was not immediate, as is seen so often in psycho-analytical cures. It occurred some months after an analysis of a few months and has now held good for twenty years."⁴

-
1. "A Preliminary Survey of Speech Defects Among Freshmen at the University of Illinois. Thesis 1926.
 2. W. Stekel, "Conditions of Nervous Anxiety & Their Treatment, p. 311.
 3. Ibid, p. 313.
 4. Ibid, p. 315.

Yet we hear him add that -

"We want to liberate all repressions and to undertake an education of the patient in the direction of health. We, too, practice with the help of psycho-analysis the Reeducation about which the French psycho-therapists are now talking so much.....In this education of the patient lies the chief value of the psycho-analytic method."¹

We are now ready to consider the re-education approach a little more in detail, for herein seems to be the chief method used by present day specialists.

M. K. Scripture says:

"Thus speech reeducation resolves itself into speech hygiene, and the subject for every day speech might be made into the subject of character building.....Again may it be said that speech hygiene should be both mental and physical and treated from the standpoints of psychology and neurology. Attention to poise, completeness of the thought expressed, rhythm, relaxation, association of ideas expressed in succession, would obviate much of the lack of concentration so much discussed in the education of our children to-day."²

Stuttering and stammering are not considered as mental disorders, but Burnham adds pertinent material as follows:

"In the great number of cases of mental disorder, as we have noted, the best form of cure is reeducation, and this consists in an attempt to develop concentration of attention, orderly association, and wholesome interests in a word, an attempt at developing a wholeness and integration of the personality to take the place of confusion, distraction, interference of association and the like."³

1. Ibid, p. 407.

2. M. K. Scripture, "Pathology and Reeducation of Speech Disorders", Quar. Jour. Speech Educ., June 1926, p. 171.

3. "The Normal Mind", p. 40.

These very principles rightly applied should greatly improve the mental state of the speech defective.

I have observed two types of stammerers. One is characterized by a morbid sluggishness of response and the other by a pathological rapidity of response. In the former there seems to be a traumatic shock at the basis whereas in the latter there is definitely a "Speech conflict". The first is fairly well characterized by fear and the second is an indication of an anxiety state.

Moore says:

"The psychic trauma, sometimes spoken of as an emotionally toned incident, or the mental shock, lies at the basis of the psychoneurosis, according to Jung and is effective, not because it is a shock, but because it leads to a dissociation of a certain element of the mental life from the remainder of the personality.....Here Jung and Janet are in agreement."¹

In connection with Speech conflict, note this statement by Moore:

"The conflict of incompatible desires, neither one of which will be downed, is the main factor in producing a state of anxiety."²

In the treatment of anxiety Moore recommends analysis for incipient cases but with chronic cases he says, in speaking of a case of anxiety --

"I was not successful in opening channels of compensation or sublimation that afforded adequate satisfaction. The opening of these channels and not analysis alone is the secret of success in curing such cases."³

-
1. "Dynamic Psychology", p. 271.
 2. Ibid, p. 209.
 3. "Dynamic Psychology", p. 210.

Note carefully when he says:

"The fundamental cure consists, however, in the solution of the dilemma. One side must be taken and the other really and genuinely given up, or it must be satisfied in a manner that does not conflict with the demands of the other side."¹

If this conflict has arisen over a new tongue position which is being substituted for an old tongue position which produced a lisp, then the proper position should be drilled in unremittently until it is a new habit.

Now suppose the conflict arises in the home life, the business life, or the social life of the individual and we say one course of action must be adopted unswervingly. Then we add further the principle of mental hygiene to face reality instead of dwelling in the realm of phantasy as the neurotic so often does. We may well raise the question, as Fletcher does in his book "The Problem of Stuttering", what kind of a reality shall it be? Certainly we should help make that reality one that can be faced either by changing certain factors in the situation or else removing the person to a new environment, which is a new reality.

The next thing to do is to provide tasks easy enough to begin building up the habit of success --

1. Op. Cit. (underlining mine)

that is nothing more than common-sense education. It must of necessity be called reeducation when the school or the home has failed to function properly. It is absolutely necessary that this feeling of successful adaptation be kept uppermost in the mind of the speech defective. With success the mental attitude will change from one of inferiority, pessimism, cynicism, or negativism to a positive, aggressive, optimistic, and self-confident attitude. In like manner, the attitude will influence the work; and hence, the old maxim, "nothing succeeds like success".

With a new habit substituted for the old undesirable one mental serenity will come about through the ability to forget the failures. Constant drill on the successes, which must be done to effect a synthesis, will increase the ability to concentrate and thereby eliminate the aprosexia (inability to fixate attention) which is prevalent in mental disorders. Along with these steps the teacher should get the pupil to see the essentials of every situation. Countless worries may be eliminated when the small things in life are relegated to their proper places.

Likewise, to a certain extent, the morbid fearful types may be greatly helped when they have learned to properly evaluate a social situation.

Chapter III

When a proper analysis has been made to find the causal factors involved in the traumatic shock, whether in the past or present, then much the same procedure may be followed as with the speech conflict types. Especially with this type there should be a reconditioning, such as Burnham speaks of, to get rid of unorderly association. Bad association is at the root of the traumatic shock or the fear response. Consequently, I disagree with Fletcher in wanting to cast aside Jung's association test. He substitutes a written response for a verbal response,--a step, in my mind, of questionable value. Analysis is helpful for the intelligent cases, and building in new habits of orderly association by the giving of proper tasks will effect a still more lasting synthesis.

Hypnotism may be used as follows: (1) in mild cases; (2) when there is a lack of intelligence for cooperation; or (3) to affect temporary relief. By far, greater permanency of cure seems to result through reeducation. The principles of good education may be applied here.

In both types it is wise to insist upon a plan of life which Moore and Adler stress so much. Also, it is well to remember that the degree of educability of the person depends very largely upon the ability to posit a future goal and follow it

unswervingly and, second, upon the ease with which a child re-adapts himself to new situations.¹

Many permutations and combinations of the steps given are necessary to get results for each individual in a new problem. As stated at the beginning of this Chapter, my chief purpose has been to suggest a line of approach to certain types of speech disorders. Further material may be noted in the bibliography under proper headings. Finally, I do not regard anything I have said as the last word on the subject.

Chapter IV will deal with the method of approach in a study of all general clinical cases.

1. Acknowledgment is hereby given Dr. Burnham for many of the ideas here presented; Also, to Drs. Adler, Freud, Jung, Moore, Steckel, and others.

Chapter IV

METHOD OF PROCEDURE

In this Chapter I propose to outline briefly the main steps to follow in handling the general run of clinical cases. Chapter three presented specific steps to follow with some of the cases; here I am attempting to give a general procedure for guidance in handling all cases. This approach should be psychological as well as logical.

To be scientific, some definite method of recording data should be decided upon and, second, certain apparatus should be used to get an indication of the reactions of each person. Lack of space forbids going into the actual laboratory materials needed for a clinic; in fact, the equipment varies with the age and severity of the cases to be treated and, also, the amount of research work that is contemplated. Excellent helps may be found in West's "Diagnosis of Disorders of Speech-- A Clinical Manual of Methods and Apparatus" and also, Borden's and Busse's "Speech Correction" book.

It seems wise to use either a card filing system or an 8½" by 11" cabinet filing system. A filing card should provide space for the following information:

"Name of patient, Address, Age, Sex, Type of Defect, Classification of Defect, By whom referred to the clinic, File number, Special notes."¹

1. West, "Diagnosis of Disorders of Speech", p. 62.

Chapter IV

The first big problem in this chapter is that of diagnosis.

West says:

"There is nothing so dangerous, therefore, as a feeling of finality in diagnosis."¹

Under diagnosis, the first step is: Analyze yourself in every way, principally from a psychological and phonetic standpoint. McDougall says:

"All mental therapy and hygiene may, then, be summed up in the old Greek maxim--'Know thyself', and this may be usefully expanded into the maxim--Learn to understand your own nature, more especially your own motives."²

The need for self-analysis from a phonetic standpoint has already been emphasized in Chapter III.

Second, the student should analyze himself and suggest ways of treatment. A very good questionnaire for the student to use in self-analysis is given almost in full in Chapter V under Case E -- Nasality. It is surprising to note the number of things a very intelligent speech disorder case can relate in a short time. The following quotation from Moore is interesting from a psycho-analytical standpoint:

"The novice is inclined to explain the matter to the patient, and lay bare the solution of his hysteria. This, however, is a mistake. A skilful psychoanalyst leads the patient on to see the solution himself. If you explain to the patient the symptoms without his having made the discovery, you do not overcome his resistance. The very aim and object of psychoanalysis is to overcome this inner resistance (Verdrangung)"³

1. Ibid, p. 60.

2. McDougall, "Abnormal Psychology", p. 480.

3. Moore, "Dynamic Psychology", p. 257.

Chapter IV

Too much reliance should not be placed upon the results of the student's self-analysis. Jung notes that:

"One should not imagine, however, that the introvert, thanks to his greater synthetic capacity and his greater ability for the realization of affective values, is thereby immediately fitted to carry out the synthesis of his own individuality, i.e. to establish once and for all a harmonious association between the higher and lower functions."¹

Further emphasis upon the above statement is given by Adler.

The normal or neurotic, he says --

".....is always found ensnared in the meshes of his particular fiction; a fiction from which the neurotic is unable to find his way back to reality and in which he believes while the normal person utilizes it for the purpose of reaching a goal."²

The third main step in diagnosis is to carefully study the patient through (a) Physical diagnosis, (b) Case history, (c) Tests of speech functions, and (d) Tests of emotions.³

Well's remarks:

"There is no more important element in the diagnosis of character than to distinguish whether a marked trait in the observed person is compensatory, or fundamental."

Under physical diagnosis West says to note the following:

A. Note:

1. Condition and shape of the palatal arch.
2. Health and occlusion of the teeth.
3. Length of fraenum.
4. Condition of the tonsils.
5. Scars and congenital anomalies.

1. Jung, "Psychological Types", p. 348.

2. Adler, "The Neurotic Constitution", p. 36.

3. Acknowledgement is here made to Dr. West, "Diagnosis of Disorders of Speech"

Chapter IV

B. Note by transillumination:

1. Nasal sinuses.
2. Nares.
3. Larynx.
4. Upper trachea.

C. Note by manometric flame:

1. Abnormal pitch levels.

D. Note as causes of nasality:

1. Cleft palate
2. Paralysis of the palati-levatores.

Miss Holcombe says:

"A good history form is an outline, rather than a blank which can be filled in by yes or no, and so allows intelligent and original thinking on the part of the examiner. It should suggest the essential topics for investigation, but it should not be used as a mere questionnaire."¹

Her outline seems to be of such exceptional value that I am including it here even at the expense of making this thesis unduly long.

Case History Outline for Diagnosis of Speech Defects

Part I

General History and Differential Diagnosis
to be considered in all cases.

II Symptoms (without attempt at classification)
Articulation tests and the following
questions will aid in determining the
symptoms.

A. Details to be noted.

1. Can the patient produce speech?
2. Does the start with movement other than speech, or with sounds?
3. Does he block on a sound?
4. Does he repeat a sound?
5. Does he repeat first or last syllables?

1. From West's "Diagnosis of Disorders of Speech", p. 55.

Chapter IV

6. Does he repeat or block on special words?
7. Does he repeat or block on special sounds?
Or sound combinations?
8. How often do the last two points occur?
9. Are the spasms in the tongue, lips, vocal cords,
throat, soft palate, diaphragm, chest?
10. What is the speech rate?
11. Does he have good inflection and emphasis?
12. Are the tics present as accompaniments of the
speech defects?
13. What muscles are involved?
14. Are the tics slow or lightning like?
15. Are they movements which might at one time have
been serviceable (e.g., throwing the hair back
from the forehead, etc.) or are they unreason-
able and unserviceable movements?
16. Are they constant in form?
17. Do they appear during good speech?
18. Do they come when speech is attempted but
not attained?
19. Does the patient substitute any consonant
sound for another?
20. Are sounds incorrectly made? Slurred? Incomplete?
21. What muscle group is slighted, and what muscle
group is substituted for the one slighted?
(Consider such groups as):
 - a. Soft palate
 - b. Back of tongue
 - c. Front of tongue
 - d. Middle of tongue
 - e. Visible positions of articulatory organs
 - f. Invisible positions of articulatory organs
 - g. Lips
 - h. Jaw muscles
 - i. Laryngeal muscles
 - j. Pharyngeal muscles
22. Can the patient produce voice?
23. Is the pitch of the voice appropriate to the
natural resonating potential of his throat?
24. Is the volume of the voice abnormally loud or
abnormally soft?
25. Describe the quality of the voice in terms of
the following adjectives; harsh, husky,
strident, hoarse, nasal, throaty, thin, or normal.
26. Of what mood or emotion is the voice suggestive?

II. General Description

A. Behavior:

1. Active, uncontrolled
2. Active, controlled
3. Apathetic - inert

Chapter IV

- B. Orderliness
- C. Cleanliness
- D. Facial tensions
- E. Habit movements

III. Speech History

- A. Was any language other than English spoken in the childhood home of the patient?
- B. At what age did speech begin?
- C. Did a good vocabulary develop early or late?
- D. When did the present difficulty begin?
- E. Who called it to the patient's attention?
- F. What is the patient's memory of the first experience with poor speech?
- G. Is the defect getting worse or better?
- H. Has the patient had any previous help?
- I. What is the attitude of people around him toward his defect?
- J. What is the patient's outward attitude toward his defect?
- K. What is the patient's real attitude toward his defect?
- L. Did he ever have any other speech defect?
- M. Was there ever a complete arrest of the condition?
- N. Does the difficulty vary with circumstances?
 - 1. What topic of conversation is likely to increase it?
 - 2. Does looking at the patient increase it?
 - 3. Do questions concerning the defect increase it?
 - 4. If spasms accompany the defect, are they present
 - a. On whispering?
 - b. On singing?
 - c. Making pure vocal sounds?
 - d. Chanting?
 - 5. Does fatigue increase the difficulty?
 - 6. In talking over the telephone, does he have more, or less, than his usual difficulty?
 - 7. Can he talk to pet animals more easily than to humans?
 - 8. Can he talk to children more easily than to adults?
 - 9. Is his speech better with the opposite sex?
 - 10. Is it better at home or at school, with strangers?
 - 11. Is conversation difficult with his superiors?
 - 12. Can he talk to himself easily?
 - 13. Can he make a public speech?
 - 14. Can he utter sounds in song that are difficult for him in speech?
 - 15. Can he act a part in a play using speech sounds that would be impossible at other times?
 - 16. Are any irregularities (not covered by the questions above) noticed in the degree of difficulty that the patient has in meeting various speech situations?

Chapter IV

IV. Family History

(We wish to know the general health, nervous breakdowns, significant diseases or defects, speech reactions, and temperaments).

- A. Father
- B. Mother
- C. Siblings
 - 1. "Nervousness"
 - 2. Epilepsy
 - 3. "Insanity"
 - 4. Speech defects

V. Medical History

- A. What were the conditions at birth?
- B. Were there illnesses during the first year of life?
- C. Have there been operations or accidents?
- D. What is the patient's general health?

VI. Physical Examination

- A. What are patient's weight and height? (Tables 6 and 7) Pages 76 and 77.
- B. Is his posture abnormal?
- C. Is his gait significantly atypical?
- D. What is the condition of his skin?
- E. Has he any deformities or scars?
- F. What is the condition of his mouth, nose, and throat?
- G. (With special reference to the size and shape of palate, occlusion of teeth, tonsils, adenoids, pharynx, larynx, nares)
- G. Is his hearing normal? Page 32.
- H. Are there abnormal systemic conditions?
(The general abnormalities most often associated with speech defects are:)
 - 1. Hyperthyroid symptoms (Toxic Goiter)
 - a. Loss of weight
 - b. Rapid pulse
 - c. Accelerated breath
 - d. Perspiration and flushing with no fever
 - e. Tremor of fingers extended
 - f. Weakness and incapacity to work
 - g. Eyes may protrude
 - h. Thyroid gland may be enlarged
 - 2. Hypothyroid symptoms Cretinism
 - a. Skin dry, face pale with a waxy sallow tint
 - b. Hair thin
 - c. Tongue large and may protrude from the mouth
 - d. Face large and appears bloated
 - e. Eyelids puffy and swollen
 - f. Nose depressed and flat
 - g. Teeth are delayed and decay early
 - h. Abdomen swollen
 - i. Legs thick and short

Chapter IV

- j. Hands and feet undeveloped and pudgy
 - k. Babylike contour and appearance
 - l. Muscular weakness
 - m. (patient may be an alert appearing child)
3. Mongolism (So called because of the superficial resemblance of patient to a Mongolian)
- a. Eyes far apart and slanting
 - b. Bridge of nose flat
 - c. Skin hairless
 - d. Patient is stupid looking
 - e. Eyelids puffy
 - f. (Case might be mistaken for congenital syphilis)
4. In obscure cases of feeble-mindedness, watch for symptoms of epilepsy and congenital syphilis and call for a Wasserman test.
5. Are the secondary sex characteristics, as influenced by the gonads, different from those normal to the sex of the patient?
(Note the following conditions)
- a. The contour of body and limbs.
 - b. The amount and distribution of hair.
Are the hair patterns those appropriate to the patient's sex?
 - c. The prominence of the larynx and the pitch of the voice.
 - d. The shape of the pelvis.
 - e. The shape of the shoulders.
 - f. The shape and expression of the face.
 - g. The state of development of the external genitals.
 - h. The posture and carriage
6. Are there present systemic conditions, otherwise obscure, that might be explained on the basis of disturbances of menstruation? (Conditions sometimes involved in speech and voice disturbances)
- a. Overstimulation of the lachrymals
 - b. Rapid pulse
 - c. General feeling of enervation
 - d. Tremor of the extended fingers and other evidences of muscular and glandular hypertension and excitability.
 - e. (Corroborative symptoms to be observed in the functioning of the generative organs.)
7. Paralyzes and general hemiplegias, choreoid and athetoid conditions, etc., very frequently disturb speech.

Chapter IV

- VII. Summary of general diagnosis. The examiner ought to satisfy himself, before he leaves this part of the examination, as to the classification of the defect presented. In his report he should here state whether he considers the trouble functional or organic, special or general, and should tersely state his reasons for his classification. (He should then proceed to the particular part of the examination appropriate to this differential diagnosis.)

Part II.

General Functional Cases

These are cases in which an emotional difficulty acts as an impediment to speech.

- I. Examples: Stuttering, delayed speech, halting diction, monotonous speech.
- II. Causes to be sought
- A. Hysteria
 - B. Inferiority Complex
(Note: "A" is always present, "B" may or may not be)
- III. Type Histories
- A. Hysteria
 1. Sheltered youth
 2. Illness in youth
 3. Physical shock
 - B. Inferiorities
 1. Social
 2. Birth or race
 3. Abilities
 4. Habits
 5. Physical
 6. Educational

The following questions will aid in discovering the cause of the difficulty:

- I. General reactions
- A. Is the patient timid or bold?
 - B. Does he anger easily?
 - C. Has he any special fears or phobias?
 - D. Is his energy output over or under requirements of the situation?
 - E. Are his disgusts adult or infantile?
 - F. What type of imagination has he?
 - G. What are his daydreams, interests, hobbies?

Chapter IV

II. Social History

A. Pre-school training

1. What is the type of his home?
2. What is the nature of the home discipline?

B. School Life

1. What was his reaction to first school days?
2. What was his reaction to his teachers?
3. What was his progress in school?
4. Is he interested in school activities?
5. Does he adapt himself socially?
6. What are his special interests?

III. Psycho-Biological History

- A. What is the patient's attitude toward the world?
- B. Is he reserved or friendly?
- C. Does he have an inferiority complex?
- D. Does he assume toughness or delicacy?
- E. Is he a "problem" child?
- F. What type of chums does he have?
- G. Is he suggestible or fixed in his opinions?
- H. What were his sleeping arrangements in his youth?
- I. Did he have any love affairs in his childhood or youth?
- J. Does he have unusual dreams? What are they?
- K. What are his sex habits?
- L. What are his reactions to religious impressions?
- M. Does he have any sex worries?

IV. Psychological tests (These will be useful in measuring his intelligence and in discovering emotional conflicts and complexes. Watch for certain tendencies, viz., paranoia, schizophrenia, sadism, masochism, manic-depressive instability, projectionism, rationalization, etc.)

- A. Binet-Simon Intelligence Tests (Page 104)
- B. Army Alpha Intelligence Test (Page 110)
- C. Performance Scale (Page 136)
- D. Jung Association Test (Page 78)
- E. Pressy X - O Test (Page 84)

V. Diagnosis

Make a summary showing the essential characteristics of the personality studied, naming such difficulties as hysteria, inferiority complexes, anxiety neuroses, and tersely reviewing the points of evidence upon which your diagnosis is made.

VI. Prognosis of the case should no treatment be given.

Chapter IV

Part III

Special Function Cases

These are functional cases who have no emotional defect, but whose speech differs enough from the accepted standard to need speech training.

I. Examples

- A. Foreign accent - Specify what foreign language and tell how acquired.
- B. Imitation of poor speech
 - 1. Nasality
 - 2. Slurring
 - 3. Preservation of baby-talk
- C. Slovenly speech growing out of poor intelligence (Non-pathologic)

II. Causes to be sought

- A. Training - Such as home influence, foreign language, environment, ignorant teachers, etc.
- B. Lack of intelligence.

III. Diagnosis

Specify the type of defect and tell tersely the evidence upon which the diagnosis is made.

IV. Prognosis of the case should no treatment be given.

Part IV

General Organic Cases

I. Examples

- A. Encephalitis
- B. Cretinism
- C. Mongolism
- D. Feeble-mindedness due to accidents at birth or to pathologic conditions previous to birth.

II. Causes to be sought

- A. Hereditary
 - 1. Prenatal
 - a. Pathologic poisons in the mother's system
 - b. Alcoholism
 - c. Psychasthenia
 - 2. Postnatal
 - a. Illness
 - b. Paralyzing wounds

Chapter IV

- III. Specify the type of defect and give tersely the evidence upon which the diagnosis is made.
- IV. Prognosis of the case should no treatment be given.

Part V

Special Organic Cases

- I. Examples:
- A. Cleft palate nasality
 - B. Nasality (Due either to weakness of the soft palate or to an obstruction in the nasal passage)
 - C. Tongue-tie
 - D. Larangeal deformities
 - E. Slovenly speech
- II. Causes to be sought
- A. Defective teeth
 - B. Deformed larynx
 - C. Paralysis of any part of the muscles of articulation
 - D. Nasal stenosis
 - E. Partial or complete deafness
 - F. Tone deafness
- III. Diagnosis
- Specify the type of defect and review tersely the evidence upon which the diagnosis is made.

- IV. Prognosis of the case should no treatment be given.¹

For tests of speech functions, hearing and articulation tests should be given. The seashore musical tests or tuning fork tests are recommended. The best articulation tests available are the Blanton-Stinchfield speech tests obtainable from C. H. Stoelting and Co., Chicago, Illinois.

Along with the tests of speech functions it is well to have a phonetic chart accessible. Most authors on phonetics use a few variations in symbols even though they say they are using the symbols of the International Phonetic Association.

1. West, "Diagnosis of Disorders of Speech", p. 64-71.

Chapter IV

Since reference has been made to Ward's work in several places in this thesis, the chart she uses is quoted:

"The symbols are those of the International Phonetic Association. N.B. -- In every case where a symbol is used, the sound and not the name is indicated.

<u>Vowels</u>	<u>Consonants</u>
i: - see	p - pay
ɪ - bit	b - big
e - bed	t - ten
æ - bad	d - dog
ɑ: - calm	k - king
ɔ - not	g - go
ɔ: - all	m - met
ʊ - put	n - net
ʉ: - rude	ŋ - sing
ʌ - dust	l - long
ɜ - bird	ʃ - little
ə - about	f - far
-	ʒ - pleasure
<u>Diphthongs</u>	ʧ - church
eɪ - play	dʒ - judge
oʊ - go	v - very
aɪ - high	θ - thin
aʊ - now	ð - then
ɔɪ - boy	ʃ - show
ɪə - here'	s - sing
ɛə - there'	z - zeal
ʊə - poor'	r - run
	j - yes
	w - will
	ʔ - (glottal stop, see p. 18.
	'when the r is not sounded"1

Bronner says:

"Any diagnosis of mentality based solely on Binet or any 'measuring scale', which consists largely of language tests, is altogether to be discountenanced in the study of individuals with speech defects."2

-
1. I. C. Ward, "Defects of Speech", p. VIII.
 2. Bronner, "The Psychology of Special Ability and Disability", p. 28.

Chapter IV

West includes the "Stanford-Binet (Terman) Tests (Formulae for first Five Years)" and the Army Alpha Intelligence Test in his manual. (p. 98-137). Just what tests are best to use I do not propose to say.

Jung's Association test and the Pressey X-0 tests are used to test the emotions. West gives the formula for the administration of the test as follows:

"I am going to read to you one by one a list of words. I want you to sit back comfortably in your chair and close your eyes. As I utter a word you should respond with the first word that comes into your mind, and respond as quickly as you can. Make no comment whatsoever on these words, except only the response word itself. If you are in doubt about a word that I pronounce, guess at it and say the first word it suggests. No matter what word comes to your mind say it, whether it is the one usually mentioned in polite society or not. If a word does not at once come to you, wait until one does."

Association Test

<u>Stimulus Word</u>	<u>Reaction Time</u>	<u>Response</u>	<u>Examiner's Comment</u>
desk			
sky			
disgust			
pencil			
white			
fear			
five			
wood			
sex			
paper			
walk			
suspicion			
boy			
hat			
injustice			
automobile			
postal card			
noise			
needle			
lift			
discouragement			
basket			

Chapter IV

<u>Stimulus Word</u>	<u>Reaction Time</u>	<u>Response</u>	<u>Examiner's Comment</u>
bread			
germs			
iron			
girl			
roar			
train			
leaf			
divorce			
dictionary			
electric light			
wiggle			
wall			
paint			
clothes			
telephone			
brick			
conscience			
tree			
road			
poison			
stone			
cowardice			
heart-failure			
window			
wagon			
sloop			
floor			
apple			
naked			
wheel			
fish			
snicker			
shell			
bettle			
spit			
chain			
bird			
fight			
pull			
dog			
falling			
shoe			
grass			
queerness			
blueberry			
robin			
religion			
bolt			
ear			
dizzy			
hand			
valve			

Chapter IV

<u>Stimulus Word</u>	<u>Reaction Time</u>	<u>Response</u>	<u>Examiner's Comment</u>
----------------------	----------------------	-----------------	---------------------------

boss			
glove			
circle			
failure			
snail			
sled			
home			
cart			
sail			
rotting			
horn			
copper			
snake			
fork			
elbow			
hug			
gun			
egg			
boat			
ugliness			
sweetheart			
spoon			
bright			
sin			
ice			
kitten			
blues			
field			
radiator			
pain			
pipe			
cap			
gutter			
saw			
umbrella			
thunder			
insult			
book			
ceiling			
breast			
plaster			
hair			
gasoline			
insult			

After a thorough diagnosis there should be the actual treatment. Sufficient space has already been given to this phase of the work in Chapter III. It is urgent that all conference with speech defectives be punctual and carried out in a

Chapter IV

business like fashion.

In summary, the method is given below in outline form:

A. Diagnosis

1. Analyze yourself from psychological and phonetic standpoints.
2. Have the patient analyze himself and suggest ways of treatment.
3. Diagnose the patient's trouble through:
 - a. Physical diagnosis.
 - b. Case history.
 - c. Tests of speech functions.
 - d. Tests of intelligence.
 - e. Tests of emotions.

B. Treatment

1. "Development of a desire for good speech.
2. General phonetic instruction.
3. Special phonetic drills
4. Maxillary, labial, lingual, and velar gymnastics
5. Mechanical interventions and stimulations.
6. Trial-and-error drill in direct imitation.
7. Voice reproduction.
8. Habit formation drills.
9. Send, to doctor, dentist, or surgeon.
10. Auto, hetero and hypnotic suggestion.
11. Psychoanalysis."1 (in part)
12. Synthesis.

I recommend that part A be followed in the order given; of necessity, part B. will require various changes to fit different cases.

Chapter V

CASE STUDIES AT THE UNIVERSITY OF MAINE AND BUTLER UNIVERSITY

As a good part of this work was done in strict confidence, the fourteen case studies presented in this Chapter will be labelled by letters and presented so as to remove the identity of the person under consideration. In addition, certain names of persons and places related to this study will be left blank. Seven cases were studied at the University of Maine during the years 1926-1928 and seven cases were studied at Butler University (of Indianapolis) in 1928. Nearly all of the diagnosis and treatment has been done in an individual, tutorial manner. Where a laboratory technique was used, it will be indicated in the facts of each case. After each case has been taken up, an interpretation of the results will follow.

In looking back over these cases, criticisms can be made in instances where the theoretical ideal has not been met; my chief aim is to present the facts in as scientific and impartial a manner as possible, thereby giving the reader an opportunity to draw his own conclusions.

The case studies will be grouped under the following main headings representing the types of disorders considered:

- A. Lispers,
- B. Nasal Twang and Nasality,
- C. Stutters, and
- D. Stammerers.

Chapter V

A. Lispers

1. Case A was a colored girl twenty-one years of age. She was a Junior in college at the time she was referred to me by a Public Speaking instructor. She was the youngest of three sisters. When she was three years of age her mother died and at eight years of age her father died. She lived with her aunt and uncle who had no children.

The diagnosis revealed the following: Open-bite jaw with lingual protrusion, producing a lisp. The upper front incisors were false teeth; the lower teeth were short and crescentic or notched indicating hereditary syphilis. The nasal bridge was flat.

The treatment was as follows:

Exercises were given to limber up the tip of the tongue. Phonetic instruction was given during the first few lessons. Practice was given in producing the correct sibilant sounds, particularly s. The correct tongue position was shown through imitation and models from Borden's and Busse's book entitled, "Speech Correction."

After drill on the position of s alone, it was joined with syllables, then words, sentences, paragraphs, and finally application to speech in the classroom. Special emphasis was given in practicing the new sound slowly and carefully. Likewise, the use of the mirror and daily practice were stressed. Later in the treatment rapidity of tongue movement was stressed. Short conferences

Chapter V

were held regularly twice a week for a period of approximately two months.

Since the front teeth did not occlude it was a question whether to teach the normal s tongue position for an abnormal mouth condition. Particularly was this procedure questioned when the new position gave a lisp more noticeable both to the student and to myself. She was very persistent in her practice as evidenced by the fact of her acquiring the correct sound so rapidly, mainly accentuated through direct imitation. At the least sign of improvement praise was given.

Particular care was given in making each conference pleasant, congenial, and enjoyable, not merely a routine drill on nonsense sounds and syllables. A short period of rest was given after exercising the tongue. Martin's manual for Lisps and his "Manual of Speech Training" were used for exercises.

After approximately six weeks of drill on sibilant sounds, she noticed that she received less criticism of her speech while in the public speaking class when she spoke with the tip of her tongue almost touching the upper gum ridge instead of the lower teeth. Her instructor remarked on her speech improvement. At the end of eight weeks she had a much clearer s and her rate in enunciation had improved correspondingly. A casual expression of praise which she well deserved produced excellent results in her mental attitude and, consequently, her efforts toward improvement.

An interpretation of the case reveals the following:

A normal method may be used sometimes in abnormal cases (though

Chapter V

it should be used cautiously) for an abnormal mouth condition may require an abnormal tongue position. Second, this case shows what can be accomplished through reeducation even though the person is handicapped with severe physical anomalies. Third, this case shows what can be done by emphasizing the successes of a student. For evidence applicable to the diagnosis, the following quotations from Hunt are given:

"Teeth which are short and crescentic or notched are known as Hutchinson teeth. They indicate hereditary syphilis. A flattening of the nasal bridge, together with a prominence of the frontal regions, is diagnostic of hereditary syphilis."¹

2. Case B was a Freshman college student. A foreign language was spoken in the home and caused speech difficulties which had been largely overcome before entering college. Diagnosis revealed a fairly normal mouth condition and dental occlusion. The lisp was the result of lingual protrusion.

The treatment was much the same as with Case A. The study of German interfered with the treatment. Hence much less progress was noted than with Case A. Conference hours were irregular. The student lived a considerable distance from the campus. Conference times were scheduled during the afternoons twice a week for a period of two months. A very small improvement was noted.

Interpretations: Case B was a relatively mild lisper. The results of this study show the tendency of mild cases to think it is not worth their time and trouble to drill on the correct sounds. Much better progress was noted after the individual was convinced of the necessity of improving his speech more.

¹J. E. L. Hunt, "Diagnostic Symptoms in Nervous Diseases", p. 28.

Chapter V

The study of German tended to create more speech conflict as new muscle movements were required.

Case C was a lingual protrusion type of lisping. She was a Junior in college and took public speaking under me. A dental brace had contributed greatly to the lisping, according to the student. A very clear enunciation of the sibilant sounds was brought about through direct imitation. She had a normal mouth condition and rather good dental occlusion. The dental brace had been removed previous to the treatment. Relatively few special conferences were held due to the fact that she was under my observation five days each week in class discussion and platform reading and speaking.

Her type of lisping was as noticeable as Cases A and B and sometimes more noticeable, yet she could produce the correct sound with greater facility than the others. The correct sound was taught through imitation. Some progress was made.

Interpretations: It seems certain that most cases of lisping need to be convinced of the necessity of good speech. Emphasis on the change of personality that will result from better speech is conducive to good results but only when coupled with regular drill to reeducate the tongue muscles for the correct position. Hence, the class-room should only be used as a test after the person has gained a moderate degree of ease of pronunciation through individual conferences or clinical procedure. Constant checking up on the person produces best results.

Chapter V

B. Nasal Twang and Nasality

Case D was a nasal twang type of speech disorder; there was a distinct pathological deficiency in nasal resonance. A public speaking instructor referred this case to me. Only three times did this person come under my close observation but each time very significant things occurred.

The first opportunity for study came when the instructor introduced the student to me and asked me if I noticed any difficulty in her speech? Before I had time to reply the student began talking something like this in a very rapid manner.

" _____ thinks I have something wrong with my speech and all my friends think I have a good voice. Of course, I have a cold today. My father and mother both graduated from college and they took public speaking work. Naturally since my father is a lawyer and my mother has taught school, they take great pains to see that I always speak all right.

Then too, I am the only child, and my parents have had me take special public speaking lessons. I have always spoken pieces and have done public speaking work since I was five years of age.Really I don't know whether to get peeved about this, or what to do. (Still trying to act nice and interspersing her talk with faint smiles) You are the first person who has ever 'criticized' my voice. I took work under Dr. _____ of _____ High School and he never said anything about my voice."

There occurred some conversation in between the above remarks and at last she said in substance:

"Well my mother had something wrong with her voice when she was in college, but she got over it."

Then when there didn't seem to be so much resistance

Chapter V

she remarked:

"Well my parents have noticed that my voice isn't just like others."

And when the instructor pointed out this statement as being in line with what had been said about the student's having a speech disorder, the girl seemed to wilt. The above facts were given in approximately ten minutes.

Arrangement was made for her to see me at one of several suggested times. As Case D did not appear for a conference in the course of two or three weeks, I urged the instructor to have her come in for a conference at a definite time, but departmental affairs prevented me from doing more than a very preliminary investigation. Another hour was stipulated.

The second real conference revealed a high palatal arch and "pinched" nostrils. Again she complained of having a cold. On the basis of the above facts and coupled with the following authority from Borden and Busse, I advised a thorough anterior and posterior nasal examination by an eye, ear, nose, and throat specialist. At the foot of a diagram of "pinched" nostrils, Borden and Busse say:

"Pinched nostrils commonly associated with adenoids of long standing". Again they say: "Note carefully the contour of the palatal arch. If the patient has adenoids of long standing, his palate will appear unusually high."¹

The third conference occurred one week later at the regularly appointed time and lasted one hour. The mother was

1. Borden and Busse, "Speech Correction", p. 244, 245.

Chapter V

in attendance and seemed to be disgruntled over the whole affair. She expressed much the same ideas as the daughter gave the first time. Especially did it seem strange to her that we should "criticize" her daughter's speech when everyone else spoke so highly of it. I tried to eliminate the idea of "criticism" and to show her that we had not other ulterior motive than to improve the speech of her daughter. In fact, I took several speech correction books and showed her carefully how I had come to the results of the diagnosis which I had given. There was a firm belief on the part of both parent and daughter that her former high school teacher knew all there was to be known on anything pertaining to Public Speaking. To this I replied that one of three things were possible: first, that the high school teacher did not have time to speak to her about her speech; or second, that he did not know much about speech correction; or third, that he simply did not want to tell her the truth and thus hurt her feelings. Toward the last of the conference the daughter said in substance:

"To tell the truth I feel that you and _____
are just trying to take out the part of my voice that
my friends like in it."

Both persons expressed the idea that a throat specialist would ruin her speech. Finally the mother admitted that the daughter's speech was "not clear when she was excited" and she later said: "She has always talked just like she talks now."

The daughter was far from at ease during the conference. She had not been taken to a specialist for examination as I

Chapter V

advised, "because we did not have time to take her this week." Also, if the daughter had adenoids, why had not the school medical examiner noticed it? -- such was the argument of the mother. Furthermore, her argument as to the high school teacher amounted to this: If the high school teacher knew debating it should make him qualified to have a knowledge of speech disorders. When they left it was with the understanding that both the parents would have to talk it over before sending the daughter to a nose specialist.

Opportunity was provided to confer with "Dr. _____ of _____ High School." He said, "the girl had a very marked speech defect, so noticeable that I could not use her in debate work. The girl carefully treasures every little commendation that is made of her speech. I suspected that she was of some other nationality. I thought the arch of her mouth was high. I could not even use her as an alternate on a debate team. I don't believe much can be done with her on account of her personality defect." That, in brief, is his report as I took it down a short time after conferring with him.

Interpretation of Case D: From the above full presentation many of the conclusions should be self-evident. Briefly, Case D. was a psychopathic case as evidenced by the type of reasoning, which was often of dual personality type. It is surprizing how unwittingly the information is oftentimes given if only we let the student talk. These things are significant: She habitually rationalized for her deficiencies; talked in a rapid manner, -- indicating nervousness and an attempt to cover up

Chapter V

her deficiency in speech. She was an only child which indicated the possibility of her being a pampered and petted person. The remark "whether to get peeved about this or not" showed how strongly she felt any type of "criticism". Finally, in despair, she admitted that she had something wrong with her voice. This shows how easy it is for a speech disorder case to fabricate in order to protect self-esteem.

In this instance, far greater than the speech disorder, was a personality defect which shall continually mar this girl's real happiness in life. This person indicated the advisability of having a psychology clinic or a speech clinic in colleges.

Furthermore, this case more than any other of the fourteen cases which are being presented, shows the absolute necessity of making a mental hygiene approach instead of a matter-of-fact clinical procedure. First of all, her personality needed to be changed in order to get at the speech problem. Much feeling probably could have been allayed if clinical apparatus could have been used in such a manner that the investigation could have been carried out without the person ever suspecting what was going on. This remainder from Burnham is constantly needed for those of us who believe "ye shall know the truth and the truth shall set you free";.....

"Teachers should learn that some children and some adults need most of all to forget their own health; that what is one child's food may be another child's poison; that while both instruction and training are necessary, instruction is especially for the teacher, training for the pupil."¹

1. Burnham, "The Normal Mind", p. 5. (underlining mine)

Chapter V

Case E was a nasality type of speech disorder. The university records showed the following facts:

"Age of father, 49; Age of mother, 52;
1. Self (oldest); 2. Brother, 3. Brother (dead;
last child in family); Mental -- not quick; This
boy has always been repressed in favor of a brighter
brother. He has capabilities, and college should be
the making of him."

Case E first came to my attention in my public speaking class. Several individual conferences were held once a week extending over a period of time. The following reports will give the facts obtained and the results of the treatment, as it varied from week to week.

He had been troubled with nasality ever since he could remember. No one else in the family was so afflicted. A nose, ear, and throat specialist said he had a good clear throat. He was not bothered with nasal catarrh. His speech sounded all right to himself. He had met one man who was like himself and who was making a success. Speech improvement work was started in his sophomore year in college. He said he was not especially concerned with speech improvement; he was more concerned with staying in college. Practice was given in saying "out" and "-e" with an exaggerated opening of the mouth in order to get a forward placement of the tone. There was some success with this procedure.

The stethoscope test for nasality was given with West's "Diagnosis of Disorders of Speech" (p. 28) as a guide. There were no definite traces of negative nasality. His soft palate raised and lowered all right, indicating no unilateral

Chapter V

or bilateral paralysis. The difficulty seemed to lie in the fact that his tongue bunched up in the back of his mouth, and thus kept the sound from coming out. Directions were given to practice on "aw" sounds while keeping the tongue well forward in the mouth.

A second conference was spent in using a word-association test, with very little results.

His scholastic record was very poor, in fact, he was on the verge of being dropped from the university. As he lived in a men's dormitory there was not much opportunity to practice on the exercises which were given. I urged him to make a definite schedule for practice in one of the public speaking rooms. In class he did not like the argumentative speeches; he would rather let someone else convince him.

The following questions were taken from a questionnaire made out by Dr. Stinchfield of Mt. Holyoke College.¹ Note that only those questions are given to which significant answers are attached.

"Age 20. Brothers and sisters. Names and ages? brother age 15, _____ 27 months (died). Your weight? 135 lbs. Your height? 5 ft. 2 in. Are you hard of hearing? No. Did you ever have a nervous breakdown? No. Where did you first go to school? _____. Age when you started? 6 yrs. What study did you like best? History, Latin. What was hardest? Mathematics. Did you behave well in school? Yes. Did you generally like your teachers? Yes. Did you like to go to school? No. Have you ever worked? Yes.

1. S. M. Stinchfield, Quar. Jour. Sp. Educ. Vol. X, 1924, p. 158, 162

Chapter V

At what? Restaurant. Wages earned at last job? \$10 per week.
Did you have many chums at school? No. Just one chum? Yes.
Did you go with a "gang"? No. Did you go mostly by yourself? No.
Do you have a good many friends? Yes. Did you play all games
as well as the average boy or girl in your crowd? No. Do you
like indoor or outdoor games best? Outdoor. Are you fond of
athletics? No. In what sports do you excell? _____
Are you contented with yourself, and happy most of the time? Yes.
Are you often sad or moody? No. Jealous? No. Do you feel
well most of the time? Yes. What excites you? Nothing in
particular. Suspicious? No. What things make you angry?
Egotism, poor sportsmanship, jumping to conclusions. Afraid
of people? No. In what way do you feel that your parents do
not treat you well? Sending me to college. Doing part of my
thinking for me. Have you an older brother or sister who
tries to "boss" you? No. Have you a chum who domineers over
you? Yes. Do you smoke? Yes. How often? Everyday. Do you
eat between meals? Yes. Are you forgetful? Yes. Do you
sleep well? No. Were you happy when you were 14 to 18 years
of age? No. Are you happy most of the time? Yes. Dream much?
No. What sort of things do you dream about? Something different
every time. Do you make up your mind independently of other
people? No. Are you easily influenced? Yes. Do you become
easily up set, or confused? Yes. Can you sit still without
"fidgeting"? No. Do you bite your nails? Yes. Did you like
your work this past year? No. Were you discontented with your

Chapter V

work or with yourself? Yes. Why? If not an engineer (what will I do? is next idea). Is your eye-sight good? No. Are your teeth in good condition? Yes. Do you do things in a happy-go-lucky fashion, or are you methodical? Yes. Do you follow a regular plan for each day? No. How many times a week do you go to church? None. To the theatre? None. To the movies? Once. Dances? None. Library? None. Pool-room? None. Y.M.C.A.? None. Gymnasium? Twice. Out-door athletics? None. How much time a week do you spend reading books or papers or magazines? Very little. What church do you attend? Methodist. What form of amusement do you most enjoy? Movies. Are you socially timid? Yes. Do you keep things mostly to yourself? Yes. Can you talk things over frankly with your parents at home? No. What sorts of things embarrass you? Women, Public Speaking. Have you a strong sense of curiosity? No. Are you good at mechanical things? No. Have you executive ability? No. (Do you enjoy managing, No - or prefer to have someone else manage affairs for you?) No. Can you take responsibility well? No. Do you succeed when you try to manage things? No. Is it easy for you to get along with a "boss"? Yes. Do you always try to "excuse" your failures? No. In temperament are you emotional? No. Is it easy to make you laugh? Yes. To make you angry? No. Do you change frequently from gay to sad? No. Do you lack self-confidence? Yes. Have you a good appetite? No. Underline the traits which you think apply to you: sensitive, suggestibility, stubborn, meddlesome, shy, conceited,

Chapter V

timid, impulsive, easily angered, selfish, jealous, obedient, boastful, deliverate, ill-tempered, good-natured, contented, very affectionate, easily frightened, lacking in confidence, moody, suspicious, given to exaggeration, find it hard to be truthful, dependable, irresponsible, imaginative, practical, well-mannered, neat, respectful to your elders, deceitful, sociable, intelligent, refined, vulgar, snobbish, forgetful, persistent. Do you like to form plans for your future? No. Are you contented with things as they are? No. What sort of future are you planning for yourself? None. (What can I do?) Are your parents planning it for you, instead? Yes.

Speech

Is it easy for you to think of things to say and do with people that you know very well? No. Among strangers? No. Are you easily embarrassed? No. Can you write more easily than you can talk? No. Do you feel a lack of confidence in your ability to make a good impression on people? Yes. Is your memory good? No. Do you recall names or faces most easily? Names. Can you think things out for yourself? No. Are you dependent on either or both parents in making important decisions? Yes. (Both). Do you hesitate a long time before deciding things? Yes. Is your speech better in the presence of strangers? No. Did anyone in your family ever have any speech difficulty? No. When did you first become conscious of the fact that your speech was not good? In primary school. What effect has it had upon your social life? None. School work? Low Rank. Business or other affairs? Poor impressions. What efforts have you made to over-

Chapter V

come it? Study of course and practice to cure. Are you willing to cooperate with us, in overcoming your difficulty? Yes. Are you willing to be guided by us in the matter of food habits? Yes. Smoking? Yes. Recreation? No. Hours of rest? Yes. Practice? Yes Have you a good deal of Self-control? No. Are you easily discouraged? No. Have you a good deal of imagination? No. Are you willing to help us, by helping yourself? Yes. Are you willing to practice regularly for certain parts of each day, and report to us about it in your conferences? Yes. Write here any additional facts which you think are important. Lack of concentration, No will power, Lack of coordination in hand and eye, Poor writing, A few careless habits."

An example of his writing appears below:

~~Write here any additional facts which you think are important. Lack of concentration, no will power, lack of coordination in hand and eye, poor writing, a few careless habits.~~

The following additional remarks to questions which were asked above are given verbatim from a paper which the student handed in:

"Were you discontented with your work or with yourself?

Yes. --

"I was discontented because I did not think it was doing me any good. I wished to go to work and leave college, but could not. So I just stayed and did as I was told so that I was still doing something I did not wish to. Studying is something I did not wish to do. I also wished money for clothes. I am not in the right place to learn that which will do me the most good."

Chapter V

"Are you willing to be guided by us in the matter of recreation? No." --

"It all depends upon the kind of recreation called for. Restriction might be all right but extension to athletics and such P.T. work would not be invited, or desired."

"At what age did you learn to walk? I learned to walk at three years."

"Did you like to go to school? No."

"I did not like to go to school because I did not like the instructor, or to study; I did not like to have my liberty restricted when vacation was over. As the exams went on I disliked to study much more and it probably became a habit to dislike school. I also wanted some work so that I could get some of the things I wanted." (Note the statement--"It probably became a habit to dislike school.")

Two of the Seashore Musical tests were given in the psychology laboratory where distractions were reduced to a minimum. Only the student and myself were in the laboratory which was not subjected to outside changing influences. Very low grades were received in both tests: Pitch test--Grade 2; Tonal memory test--Grade 2.

Here I will give a resume' of a conference. Case E went home to talk over his scholastic affairs with his father. Apparently the father did not listen to the reasons set forth by the son and so severely criticized them that he kept still and would not discuss the matter any further. He said his father could think of more reasons in a minute for not doing a thing than any ordinary man. The antagonistic attitude of the father caused anger and stubbornness to result on the part of the boy. Everything was mapped out so that Case E must go

Chapter V

to college and this made him angry for he could not do part of his own thinking or make part of his own decisions. Consequently the son expected to be "kicked out" of the university after spending three semesters there; but this did not worry him. He seemed to be hoping he would get suspended from the university so that he might assert his superiority over his father and thereby show him that his way was the best way. Yet this plan of action did not suit him, for if he did not go to school "what would I do?" (in his own words). Therefore he was eager to make a success in life, but he met with nothing but failure both at home and at the university. Case E had two or three conferences with his college Dean who advised him to go to a trade school. After that, he thought the Dean was beginning to get disgusted with him.

The preceding summer the mother went to school (as she was a school teacher), the father worked in a summer resort, the younger brother did _____, and Case E stayed at home and kept house.

With these conflicting forces constantly tearing at him, it was no wonder he was little concerned about improving his speech. However, he did appear to be trying to carry out the exercises.

Later on he was home again during a vacation. Again his scholastic average was very low. The discussion on education was with reference to his brother. The father did all the talking in the discussion "or else we got into a fight about it. I'm awfully sorry I came up here these two years." The less

Chapter V

said about education at home the better it was. The brother was sixteen years of age and a Junior in high school. The folks did not tell him what he should do. He was getting a good rank in high school. "My brother does as he pleases, within reason. No extra restrictions are put on him." Case E said he made a fair rank in high school; he flunked three times, but passed everything in the final grades.

The brother was rather smart and was on the Dean's list all the time. Case E said of him, "He took charge of three classes this year in high school. He is over-confident, but it is better than being under-confident. My father has not shown up well as far as white-collar jobs are concerned."

If Case E had not come to college, he would have taken the first job available. His main reason for doing so was in order to be able to have a steady job. He would like to have worked in a steam plant. He said, "I did not like the idea of going from college to a trade school mainly for psychological reasons. In trade school you have to show what you know."

The father was very nervous and this was "really caused by sickness", according to the son. "One thing that made him nervous was putting me through high school." This student said he was not nervous -- "nothing excites me but I am easily embarrassed." "My brother does not go out with girls but he doesn't avoid them." Case E avoided girls and in his own words, "I should say so --- they would probably get me all bawled up and I would not know as much what I was doing." He never expected to get married but, if he did, he would like to have a

Chapter V

house of his own and "for it to be more than an eating place."
"I never fell in love with a girl. I think if I fell I would fall hard and be left in the cold and it costs to carry a girl around." He thought he would be more happy with a girl, but he felt that he did not have the energy for such pursuits. While young, he had never played with any little girls. "I would not know what to do with a girl if I had one."

As to work he said, "If I failed in a job, I would know it was my own fault. I want to get so that I can do a good many things well the first time."

At another conference the discussion started on "inferiority complex". At this time I tried to realign his personality. The first thing taken up was the necessity of having a goal in life. To this he said, "I can truthfully say I do not have any object in the world." To him, "College helps a man to rise." He was contemplating working for his uncle in linotype work. His father always impressed him with the necessity of education though he did not want to go to school but "I did not know what else to do." He did not see what good high school had done him except in a cultural way. "I never saw a man who chased my rank card so much. All he tried to do was to get me to have a fair rank. Mother did not make any talk; she did not expect me to do as much as he did. My first recollection of not being any good was in Algebra. I was not over-confident or under-confident at the completion of high school, but it's different after being here at college."

The following theme on "Happiness", which I asked him to

Chapter V

write is of interest for several reasons, one of which is that his changing point of view is shown.

"Happiness for me from now on would consist of a Real home, a good wife, and a steady job. My home would come first. I want a house that can be called a home more than anything else. Four walls and a roof do not make a home. There must be something besides furniture. To me a home does not necessarily contain children, but it must contain a good wife. Two heads are better than one.

I should want to live in the city. I have had enough of the country. In a small town anyone's business is everyone's business and I do not like that at all.

Next I should want good health. Nothing can be accomplished without good health. Poor health has no place in a man's life; there is no need for it.

As for money, just at the present moment I feel that I would want just enough to supply my wants; with a little in reserve. However, as I would probably want more, as I received more, I can not definitely say how much I want. By enough I mean enough to be able to buy what I want when I want it and not have to plan ahead. Probably the more I had the less I would spend.

As for being an asset to the community, I am not particularly anxious to shine. But I would not want to be a detriment (detriment) to the community. I am filled up with cooperation among neighbors and would like to see somebody do something on his own hook.

I would like to see that the children get a square deal in the matter of schools. The Schools cannot be watched tooo (too) carefully and in a small town this is particularly necessary.

Lastly I would like to get rid of my inferiority complex and procrastination."

Throughout the conference work exercises were given to secure a forward placement of the tone. Sometimes five or ten minutes of the conference period would be used for practice on "e" or "say--e". In the latter part of the work

Chapter V

I urged him to use a spoon to hold his tongue down, as it was particularly large for the size of his mouth. This point should be kept in mind. But more than with tongue exercises, I was concerned with changing his personality.

In this conference I started on a different approach. Emphasis was laid upon the desirability of improving his speech as a means of working out the more fundamental and basic needs in his life. At this stage "transference" or "rapport" was at its best; a very confidential report revealed the fact that the sex factor was of a distinctly pathological nature. For instance, he was reading a book on "The Family". Every reference to sex "almost burns me up", he said. Upon my suggestion that he was getting sexual satisfaction through dreams, instead of through normal activity, i.e. normal social activity, friendship, dances, play, etc., he replied, "I should say I am" --(words to that effect). He read the "True-Story" magazine. When questioned as to why he dreamed about sexual satisfaction more than the ordinary person, he answered, in substance: "I suppose it is because I do not go with girls enough."

The boys at the dormitory "dubbed" him for his low rank and this got him "fussed up". He liked me very much for I seemed to "understand him and know my subject", as he said.

Upon the subject of dreaming he said:

"I do not dream very much at night but I day dream quite a good deal. When I was young I used to dream of falling down a flight of stairs and then I would wake up. Everything I read starts me dreaming. Most of my dreams are prompted by a desire for being

Chapter V

in the public eye. The majority of my dreams are not hinged around the sex element. Announcement of weddings usually interest me very much and I usually read most of them. I never realized that sexual intercourse was allowed ethically except from a eugenic standpoint,--the preservation of the race,--until recently. My parents never said anything to me about sex."

His brother did not go with the girls for "he seems to consider them below his consideration." "I go to church mostly for amusement."

The following chart was worked out with his cooperation and given to him as a guide for future endeavours:

<u>Synthesis Needs</u>	<u>Working Hypotheses</u>
1. Inferiority complex	1. Strive to accomplish to succeed in <u>one</u> given task.
2. Vocation need	2. Mix with young people, both boys and girls.
3. Intimate friendships	3. Plan for a future vocation.
4. Procrastination	4. Practice tenaciously to improve your speech.
5. Play	
6. Speech	

The following results were obtained through Jung's word-association test and using West's "Diagnosis of Disorders of Speech" as a guide throughout. Instead of using a stop watch I began counting to myself, after giving each stimulus word, --as West suggested. Only the stimulus words and reactions which permitted two counts are recorded here:

<u>Stimulus word</u>	<u>Reaction time</u>	<u>Response</u>	<u>Examiner's Comment</u>
white	5 counts	black	laughed
sex	3 "	man	
noise	2 "	fear	
lift	6 "	race	
discouragement	6 "	cheer	
girl	3 "	man	
roar	3 "	swell	
divorce	3 "	marry	
clothes	3 "	suit	
brick	2 "	building	
fish	2 "	poor	
spit	4 "	floor	

Chapter V

<u>Stimulus word</u>	<u>Reaction time</u>	<u>Response</u>	<u>Examiner's Comment</u>
falling	2 "	down	
valve	2 "	float	
boss	3 "	Davee	
home	5 "	house	
sail	3 "	house	
hug	"	girl	embarrassed
egg	2 "	scramble	
sweetheart	2 "	girl	
spoon	3 "	throw	
insult	3 "	fear	

It is interesting to note of the 119 Response words given, ten of them were "fear".

Reactions to the above test were as follows:

"If this is a psychological experiment you might get left. I seem to be on the defense."

Also he did not like the word "tenaciously" in the working hypotheses so I struck it out.

My interpretations have been given in part in the above report of Case E, particularly in the Synthesis needs and Working Hypothesis chart which was given. First of all the home was not the proper environment for this individual; second, college only added to his sense of inferiority, though it did help enlighten him on some points. This is only one illustration of the economic loss to the student and to the college by not having proper advisers such as psychologists or speech specialists.

In addition to the above chart, it should be mentioned that one of the chief troubles was that this student could do well relatively few things the first time. One can readily comprehend the nature of the difficulty from the above lengthy presentation. What little success I was able to get with this

person was due largely to my sincere interest in him. I am reminded of this significant statement made by Appelt,....the psycho-analyst can only proceed just so far as his own complexes and inner resistances allow him. Therefore self-analysis, deepening as he gathers experience with his patients, is required and his achievements in consequence of this self-analysis must ever be the test of his capacities for treating patients analytically.. Even when this test is applied successfully, it still remains for the man, who makes it his life-task to search for neurotic dread and repressions, to be chaste in life, modest in thought, and earnest by nature. Only with such a disposition is it possible to speak about many things that a false moral hypocrisy would condemn."¹

With relatively few persons who understood him it was rather easy to see how he was drifting further and further into the realm of phantasy and this was accentuated first by the father not allowing the son to make some of his own decisions and, second, by the failures which constantly confronted him.

To those persons versed in psycho-analytical matters many other things are noticeable,--points which would lead me far into discussion should I attempt to take them up.

Case E was very cooperative, usually punctual in his appointments, and neat in appearance. Little improvement was made with his speech; if this could have been accomplished his personality would have changed. In reality, most of what was

1. Appelt, "Stammering and Its Permanent Cure", p. 221.
(Underlining mine)

Chapter V

done was a fairly thorough analysis. More could have been accomplished had the opportunity been given to provide more specific chances for success, especially to provide a new reality for him to face.

The pitch test and tonal memory test indicate a close correspondence with his monotonous vocal expression. Probably if his speech could have been improved the musical tests would likewise have improved.

A cursory view will convince one of the correlation between Jung's word association test and the previous facts obtained through conferences. Note particularly these stimulus words with the corresponding response words: sex -3- man; discouragement -6- cheer; girl -3- man; divorce -3- marry; clothes -3- suit; fish -2- poor; falling -2- down; boss -3- Davee; home -5- house; hug - - girl - embarrassed. Then remember the sex factor had not been fully explained by his parents; he had failed in several things and had an inferiority complex; he wanted good clothes; and his home was just a "house";-- other likenesses could easily be pointed out except for lack of time and space.

Case F was bothered with nasality. He was referred to me from a public speaking class. General observation showed these things; an over-shot jaw, teeth which varied very much in size and shape,--with the longest length in both the upper and lower incisors, and a velum which seemed sluggish when inhaling quick breathes. Reading with a pinched nose gave a muffled tone; hence, there was too much sound escaping through the nose under

normal reading. (In saying the word "Jack" with the nose pinched, the tone should not be affected very much.)

These brief points regarding his background were obtained in the short time I had to work with him. His parents were separated when he was seven years of age. Since then he had lived with a brother or a sister most of the time. Neither parents, brothers, nor sister were strict or harsh with him; "if anything they were too lenient", he said. He thought the English teacher in High school did not give enough oral work. In general, this individual gave the impression that he had been taking an indifferent attitude toward life until recently.

Most of the work was of a diagnostic nature; exercises were given to produce a forward placement of the tone. Words which contained the high front vowels (i.e. i as in machine and i as in bit) were especially stressed. There was a tendency to form the front vowels further back in the mouth. The proper sound could be obtained fairly well through direct imitation. The necessity of limbering up his jaw for expression was stressed considerably. Only a few minutes were required to give him the necessary phonetic knowledge. My enthusiastic efforts with him were rewarded by his taking a decided interest in improving his speech.

Interpretation. Case F, like the other two cases, seemed to have a personality defect as part of the cause for his speech trouble. True, he was handicapped by teeth which impeded the outward course of the oral sounds, but brief practice showed that he could get the correct sounds. His speech was only an outward manifestation of an inner need for readjustment or

Chapter V

reeducation to meet the problems of life.

Case G, another case of nasal twang, was referred to me by a public speaking colleague. The instructor said he had a "constriction in his nasal cavities". In ordinary speech the defect was scarcely noticeable at first and not very pronounced under later observation. The Blanton-Stinchfield speech test, "Score Sheet Articulation Test A (all grades)" - (furnished by the department of Psychology of the University of Maine) showed defective pronunciation on the following words: "fan, jam, may, think". A quick diagnosis was possible by the above test.

Most of the exercises were through direct imitation. I pronounced a word containing a nasal resonant and the student said the word naturally, trying to see the difference between his pronunciation and mine. Then followed direct imitation. This person was very intelligent and cooperative; hence a number of preliminary steps could be dispensed with.

Interpretation The cause for his faulty speech seems largely to have been in the particular environment in which he lived, i.e. his disorder was one characteristic of a limited region of the United States.

C. Stutterers.

Case H, a stutterer, first came to my attention in a public speaking class. The following notes were taken on a speech criticism sheet used in class. The title of one five minute speech was "The Next War." These expressions occurred in the speech: "take-take fleet-fleet; to-to

Chapter V

taking taking; that they, that they; huge huge; six-six; protect-protect; sub-sub marine; all-all-all; war-war; last-last war; food-food situation; destroy; destroy vegetation." Much the same expression occurred in other speeches.

These facts were obtained through the Stinchfield questionnaire: Age - 22. Height - 6 ft. 2 in. History was his easiest subject and mathematics was his hardest. Foul play excited him and made him angry. He was emotional in temperament and it was easy to make him laugh. There was a lack of self-confidence. The traits which he underlined as applying to himself were: sensitive, suggestibility, impulsive, obedient, good-natured, contented, lacking in confidence, dependable, imaginative, well-mannered, respectful to your elders, sociable, intelligent, persistent. He said he could recall faces more easily than names. He first became conscious of the fact that his speech was not good in my public speaking class.

Very little treatment was given save in general classroom criticisms. No individual conference work was done. Some improvement was made as he practiced more and more on his speeches for a class which tried to hold to standards of achievement set by two or three speakers.

Interpretation of Case H. To the ordinary person, this case would not cause much comment except that he had a little "speech hesitation". However, the fact that the difficulty was slight caused the student to neglect it, and to some extent, caused the instructor to neglect to take time with it.

Chapter V

This study shows especially the fallacy of giving each student the same standard of work to do. However, he was able to help himself through practice before giving his speeches. More lee-way should be given in colleges to adapt instruction to meet individual needs and not have students adapt themselves to the instruction.

Case I, a stutterer, came to my attention in a public speaking course; and later he took a course in speech disorders.

The following questions and answers were obtained from him by using the Stinchfield questionnaire: Age - 20.

Brothers and sisters. Names and ages _____ 16; _____ 13; _____ 7; (_____ 18-dead). Your weight 163 lbs. Your height 5 ft. 7 in. Are you hard of hearing? Yes. Have you ever worked? Yes. At what? Selling and chores at summer camp. Wages earned at last job, \$550 - 13 weeks. Did you have many chums at school? Yes. Did you go with a "gang"? No. Did you go mostly by yourself? Yes. In what sports do you excell? Basketball, baseball. Are you contented with yourself, and happy most of the time? Most of the time not contented. Are you often sad or moody? Not very often. Jealous? Sometimes. Do you feel well most of the time? Yes. What excites you? Athletic games. Suspicious? Yes. What things make you angry? Kidding me too much. Afraid of people? Yes. Do you smoke? Yes. How often? Very often. Are you forgetful? Yes. Are you easily influenced? Yes. Have you a tendency to worry much? Yes. (Financial). Do you blame yourself or others, when things go wrong? Both. Do you become easily upset, or confused? Yes. What poor

Chapter V

habits have you tried to overcome? smoking, blushing. Did you like your work this past year? No. Were you discontented with your work or with yourself? Yes. Why? I wanted a job that was congenial. Did you ever skip a grade in school? Yes. Do you follow a regular plan for each day? No. Do you do things in a happy-go-lucky fashion, or are you methodical? Am trying to be methodical. Do you keep things mostly to yourself? Yes. What sorts of things embarrass you? Talking in a crowd. Are you good at mechanical things? No. Do you enjoy managing, or prefer to have someone else manage affairs for you? Prefer managing. Can you take responsibility well? Yes. Do you succeed when you try to manage things? Yes. Is it easy for you to get along with a "boss"? No. In temperament are you emotional? ? Active uncontrolled type? ? Is it easy to make you laugh? Yes. Do you change frequently from gay to sad? Yes. Do you lack self-confidence? Yes. Underline the traits which you think apply to you; sensitive, shy, timid, jealous, obedient, good natured, lacking in confidence, moody, dependable, imaginative, neat, respectful to elders, intelligent, persistent. What sort of future are you planning for yourself? Salesman. Is it for you to think of things to say and do among strangers? No. Are you easily embarrassed? Yes. How? By talking in a crowd. Can you write more easily than you can talk? Yes. Do you feel a lack of confidence in your ability to make a good impression on people? Yes. Is your memory good? Yes. Do you recall names or faces most easily? Faces. Do you hesitate a long time before deciding things? Yes.

Chapter V

In conference, he said he did not "think far enough ahead"; this caused the speech hesitation in his estimation. He succeeded best with an impromptu speech. He noticed improvement in speaking to a group in a conversational manner. The advice, "pick one particular person of the group to talk to" helped overcome embarrassment. Salesmanship experience helped to develop his confidence. To him, the class audience did not look interested enough for a speaker to put his best into a speech. There was no great fear in speaking, but the boy "kept to himself on the farm." Coming out before the student body made him self-conscious and often caused him to forget entirely what he had to say. At times his throat seemed tight. He hesitated because he looked for a certain word to express his meaning; then he lost connection with the rest of his ideas. This "mixed him up for several sentences."

The second individual conference was held about a month later. The material for his last speech in class did not seem to be well-organized; he seemed to forget everything. His ideas became twisted and this made him feel disgusted. In substance, he said the following: "It is very hard for a man to do his best when the audience is not paying attention. There is nothing practical in declamations in high school. Instead of helping me, they made me worse. Fundamentals should be taught. While speaking, I keep saying to myself, 'I hope I can get this over'. When the audience loses attention, then I lose interest in my speech and I do not feel as if I shall put it over so well. Then I don't care." Yet there were signs of improvement in con-

Chapter V

versation, and he was not so easily embarrassed. This advice was given for his speech work: "practice before me, then before a small class, and then before the regular class."

The following statements were taken from a letter which was received after the semester's work was over: "Last Saturday I made \$9.50 in five hours; so you see I am expecting to make quite a lot of money this summer. I hardly am bothered at all now with my speech hesitation. Occasionally, I find myself hesitating but I soon overcome it. I have far more confidence in my ability to speak clearly and distinctly than I had before taking Public Speaking I and II and the Speech Correction course."

Interpretation of Case I. These things seem significant; There was a good adjustment to life for the most part, particularly noticeable in his ability to make a financial success of his selling endeavors. Blushing was a main source of trouble and I strongly suspect there was some sexual maladjustment. At least, his facial expression when with the opposite sex bore evidence of this fact. Stekel says:

"I have seen the worst cases of stagefright in masturbators who even in childhood suffer from a certain fear of publicity. For they fear people may detect the 'vice' in them, avoid publicity and readily blush when they meet company. Many people who suffer from fear of blushing are masturbators. Just as frequently anxiety neurotics suffer from stage-fright."¹ By no means would I say that these cases of blushing was due entirely to a sexual maladjustment.

Next, he had a poor basis for speech making for he had difficulty in talking in a crowd. Evidently there was

1. Stekel W. "Conditions of Nervous Anxiety and their Treatment", p. 316. (Trans. by Rosalia Gabler)

Chapter V

some emotional disturbance back of this, possibly the same as Stekel says above. However, he was able to improve in conversation.

Last, this study shows the importance of English teachers in high schools knowing the possible evil effects of improper public speaking instruction. There is a possibility that declamations in high school served to make him more of a chronic speech disorder case than he otherwise might have been.

Case J, a stutterer, was referred to me by the Spanish department. The following facts were obtained by using the case history outline as given in Chapter IV of this thesis, and also, by using the Stinchfield questionnaire.

His speech began at the age of one and one-half years. The present speech difficulty began at five or six years of age. His memory of the first experiences with poor speech was in the fourth grade. He said, "I was reading and came across a word I could not pronounce. It began with 'h'. I have forgotten the word. The class laughed and made me embarrassed." The speech difficulty was manifested as follows.

There was a repetition of first syllables and he held s sounds. He did not repeat or block on special words. The speech disturbance varied under different circumstances such as, when fatigued, or when talking over the telephone. His speech was better at home and with friends than elsewhere. Sounds could be uttered in song that were difficult for him in speech. The defect was becoming better at the time he

Chapter V

came to me. He had had the habit of twitching his face, neck, or shoulder muscles. His speech had become better while acting as counsellor at a boy's camp one summer.

His parents did not notice the difficulty at home. He said his health was very good. There were two sisters, one aged 23 and one aged 14. He was 20 years of age. His weight was 168 pounds. He was 5 feet and 8 inches in height. He had always slept by himself. Personal affairs could be talked over frankly with the parents at home. No one in the family had been troubled with a speech difficulty.

School work was begun at six years of age. He liked French best; mathematics was hardest. School attendance was agreeable. He had many chums at school. Indoor games pleased him most. He played all games as well as the average boy or girl in his crowd. Basketball was a game in which he excelled. He didn't like his school work during the past year because the course did not interest him.

The following facts bear on his personality. He did not have any love affairs in his childhood or youth. Insults made him angry. Athletics excited him. He made up his mind independently of other people. He blamed both himself and others when things went wrong. There was not a strong sense of curiosity. He preferred to manage affairs and could take responsibility well. It was easy for him to get along with a boss. It was easy to make him laugh but not easy to make him angry. He was easily embarrassed by not being able to speak. There was not a lack of confidence in his ability to make a

Chapter V

good impression on people. He underlined the following traits as applying to himself; "sensitive, obedient, good natured, contented, very affectionate, well-mannered, and respectful to your elders." There was a long hesitation before deciding things. He was easily discouraged and he did not have a good deal of imagination. He always tried to "excuse" his failures.

These additional facts were brought out. He was planning a business career. It was easier to remember faces than names. He did not have unusual dreams, slept well, and was not bothered with sex worries. He attended church once a week, the theatre once a week, dances twice a week, and outdoor athletics none.

In conference he said he thought his difficulty was stammering, - "I hold words". He had troubled with his speech ever since he could remember. His speech seemed to clear up in the summer while at a boy's camp.

In a later conference the following facts were obtained: The parents had the idea that he could cure himself if he took his time in speaking. He was bothered mostly during the school terms. He had acted as counsellor at a boy's camp; smoked a little; was right handed; dreamed much; and worried over his studies. Spanish and English bothered him most at that time. He was on probation at the university. "Sl" troubled him most. His speech was better than previously.

The third conference took place four months later. The home conditions were investigated. He was wary of me using hypnotism, but he said he would be willing to be hypnotized if

Chapter V

that would help. He showed that he wanted to get over his speech difficulty and said, "I'd like to be able to talk like other people do."

Very little treatment was given except in a general suggestive way; most of the time was devoted to a careful diagnosis.

Interpretation - The following factors stand out from the above diagnosis: He had normal reactions for the most part, but repeated first syllables, held "s", and words. His speech difficulty was accentuated in the fourth grade. Since that time he had always tried to "excuse" his failures. It was easy to make him laugh. He was a sensitive, contented, and very affectionate person who was easily embarrassed by not being able to speak. He recalled faces more easily than names, hesitated a long time before deciding things, had had no love affairs in childhood or youth. There was one sister older, and one younger. He had been counsellor at a boy's camp, during which time there had been an improvement in speech. This would indicate that a chance to get away from a feeling of inferiority to a feeling of superiority, or at least equality, is essential in speech improvement. His parents apparently thought he would outgrow the difficulty but he was easily discouraged in this respect. The speech difficulty began at five or six years of age. Further questioning brought out the fact that he dreamed much and was on probation in school.

Just what set off the difficulty in early youth was a question. I planned to use hypnosis to help in further

Chapter V

analysis, but this was thought undesirable. The minor nature of the trouble was probably a big factor in causing him to absent himself from conferences. Furthermore, a lack of time on my part may have had something to do with the conferences.

D. Stammering.

Case K, a stammerer, came to my attention through the efforts of his brother who was taking one of my public speaking courses.

The results of the Stinchfield questionnaire are given below:

Age 20 yrs. Brother and sisters, names and ages Brother 29; Brother 28; Brother 26; Brother 24; Brother 21; Self. Sister 14. All living? Yes. Your weight? 150 lbs. Your height? 5 ft. 10 in. Are you hard of hearing? Yes. Age when you started to school? 5 yrs. What study do you like best? None in particular. Did you like to go to school? Yes. Have you ever worked? Yes. At what? Carpenter and general labor. Wages earned at last job? \$18 a week, ten weeks. Did you have many chums at school? Did you play all games as well as the average boy or girl in your crowd? Not quite. In what sports do you excell? Football. Are you contented with yourself and happy most of the time? Yes. Are you often sad or moody? Seldom. Jealous? Seldom. What things make you angry? "Riding". Do you smoke? Yes. How often? Everyday. Are you forgetful? No. Were you happy when you were 14 to 17 years of age? No. Are you happy most of the time? Yes. Did you get (or do you get) good marks in school? No. Do you sleep well? yes. Dream much?

Chapter V

No. Are you easily influenced? No. Stubborn? No. Have you a tendency to worry much? No. Do you blame yourself or others when things go wrong? Myself. At what age did you begin to walk? 1½ or 2 yrs. To talk? 1½ or 2 yrs. Did you like your work this past year? yes. Do you follow a regular plan for each day? yes. Do you do things in a happy-go-lucky fashion, or are you methodical? Do them as happy as possible. What form of amusement do you most enjoy? Athletics, games, football. Are you socially timid? Yes. Can you talk things frankly with your parents at home? Yes. What sorts of things embarrass you? Personal affairs. Have you a strong sense of curiosity? Yes. Are you good at mechanical things? Have you executive ability? No. Do you enjoy managing, or prefer to have someone else manage affairs for you? Someone else. Can you take responsibility well? Yes. Is it easy for you to get along with a "boss"? Yes. No. Do you always try to "Excuse your failures? Yes. Is it easy to make you laugh? No. To make you angry? No. Did you ever have the habit of twitching your face, neck or shoulder muscles? Yes. Do you lack self-confidence? No. Have you a good appetite? Yes. Underline the traits which you think apply to you: sensitive, shy, timid, obedient, good-natured, contented, very affectionate, practical, well-mannered, neat, respectful to your elders, intelligent. Do you like to form plans for your future? Yes. Are you contented with things as they are? Why, in certain ways. What sort of future are you planning for yourself? Civil engineer. Are your parents planning it for you, instead? Why, no.

Speech

Is it easy for you to think of things to say and do with people that you know very well? No. Among strangers? Are you easily embarrassed? Yes. How? When I stammer to strangers. Can you write more easily than you can talk? Yes. Do you feel a lack of confidence in your ability to make a good impression on people? No. Is your memory good? Yes. Do you recall names or faces most easily? Names. Can you think things out for yourself? Yes. Do you hesitate a long time before deciding things? Yes. Did anyone in your family ever have any speech difficulty? Father. What? Stammerer. When did you first become conscious of the fact that your speech was not good? 6 years of age. What effect has it had upon your social life? Makes me bashful in meeting people. School work? Makes me unable to recite. What efforts have you made to overcome it? By attending a stammering school. Are you willing to cooperate with us, in overcoming your difficulty? Yes. Have you a good deal of imagination? Yes.

The following information was received by personal correspondence from Dr. _____ of _____ stammering school:

"I am glad to hear you are working with _____ and _____. With (Case K) _____ I suggest that he keep up strong voice with plenty of vibration and avoid attempting to hear his consonants. He suffers a certain amount of speech conflict before attempting to speak and needs much practice on fundamentals as described in the introduction of my manual.

"If I may give you any further advice at any time, please do not hesitate to call upon me."

Chapter V

The following information was obtained through individual conferences: Case K had attended a stammering school for six weeks. The tuition was \$300.00 for six weeks or six months. Case K was first put on silence about a week and a half. He was given practice in saying long and short vowels; next, he was given vowels with a consonant. He was to make the position but not sound the consonant; instead, he was to sound the vowel. There were six people besides Case K in this particular school and all lived in the same dormitory. His mother went there with him and told Dr. _____ about his home life. His mother is not troubled with her speech. There were six boys and one girl in the family. He was the sixth child with a sister younger than he.

In his exercises, practically every word began with the same consonant. He began first with single, then double, and then tripple consonants such as is the case in the word "scratch". The last week there he had to learn different poems for practice in speaking before the class. He was told how to use vibration and emphasis. He said, "I was in pretty bad shape before going there but when I left I could talk as easily as anyone can." The reason there was a relapse, according to him was that he left off his exercises. He further remarked that "you could not get the benefit from practicing the exercises alone that you could get when practicing with someone else. A child does not realize the fact of stuttering at twelve or thirteen, probably fifteen or sixteen, in my own case. About sixteen or seventeen is the

Chapter V

best time to overcome the difficulty by going to Dr. _____.

The realization that I am talking fast causes me to slow down.

The main thing is not to think of the person, -- wondering what he thinks of you; keep your thought or idea in mind."

His father was bothered with his speech while in college, _____

_____ University law school, in 1888. He took a course in stammering which seemed to help him. If his father got stuck

on a word, he was advised to say another word which had

practically the same meaning. At the _____ stammering school

Case K was told this was one of the worst things he could do.

His father tried to get him to take his time in speaking. One

of Case K's older brothers was troubled with his speech, but at

about the age of fifteen the trouble left him.

During the first conference, practice was given in speaking

slowly. The second conference took place after Case K had

attended the stammering school, mentioned above, for the second

time. This was for a period of six weeks. His university

scholastic average was still low. At the third meeting he

showed signs of speech improvement. The next time he was re-

quired to practice before giving his speech in class. During

the first day at the _____ stammering school, he said that

each person had had to give his name and say a few things at

the beginning of the class hour. It seems that Case K had been

particularly impressed with the entertainment side of the school.

Other succeeding conferences brought out the following facts:

He spoke of a trip to the Niagarria Falls. Then followed a dis-

ussion of Dr. _____'s method. In his own words, "Dr. _____

begins with the objective mind instead of the subjective mind.

Chapter V

He gave us a short talk at first. Next, he took up the drills on single and double consonants. Then there was practice on selections to get vibration and phrasing." At another conference - Word association tests were given with little benefit derived therefrom. During the seventh conference, the following written report was given immediately after Case K had finished a speech in class:

"Did not feel as nervous as a week ago, when I was the first speaker. Could not remember of stammering any. Could not remember what my reasons were, therefore, I mixed them all up. Did not mind waiting on the stage for something to speak on. Getting more confidence in my speech upon the stage."

He stammered some in his speech, though he could not remember it. At his eighth conference, he said he got the feeling of relaxation in class, went along all right, came to a "sticker", had trouble and then consciously tried to relax. He mostly felt tenseness in his throat, tended to shrug his shoulders, close his eyes, and duck his head. Advice was given to practice his exercises from Dr. _____'s manual daily and to use plenty of facial expression along with gesturing. Special practice was given with exercises having "statements of accusation" to develop vigor and conviction. Typical exercises may be found in A. E. Phillip's "Natural Drills in Expression." (The Newton Company)

Later, the discussion centered on his scholastic standing. He said, "I can't seem to concentrate". He seemed to recite better before a group than before a few persons. In the tenth conference attention was called to the fact that he talked too fast in the public speaking class, both at first and when he

Chapter V

made mistakes. He felt nearer to the class in a small room than when he spoke in a large room. He had difficulty with his speech and said, "I couldn't seem to remember it." The speech difficulty was worse than when he first returned to school (that is after being at the stammering school); particularly was this so in his conversation. The boys at the fraternity house imitated him at different times, usually when four or five persons were together. When they imitated him he felt as if he "would like to get up and take a swing at them." He stayed in the group and said what he wanted to, regardless of being imitated. One member bothered him most. He stammered on the name of the person, as he told it. He spoke all right at home and said the boys who imitate him were just doing it in fun.

M, C and D are consonants that troubled him. Practice was given with exercises containing poetry, together with paraphrasing.

Eleventh conference - Case K had not practiced on his exercises. His speech was poor this time; he thought it was due possibly to the excitement of getting ready to go home. His thyroid cartilage was sharp and pointed. During the conference exercises he kept moving his larynx with his hand; evidently, Dr. _____, of the stammering school, had advised this.

Twelfth conference - He said: "I had very little opportunity to practice the exercises." Nineteen or twenty class hours were scheduled for the following semester. He talked all right at home. It did not bother him very much when he talked to his girl; not as much as when he talked to a man.

Chapter V

Thirteenth conference - He had not practiced on his exercises during the past few weeks. Practice was given on exercises from Martin's "Manual of Speech Training". Reading exercises were given from Dr. Appelt's "Stammering and It's Permanent Cure." This was followed with paraphrasing of the material that was read.

The Seashore tests for Pitch and tonal memory were given with the following results: Pitch test (first time) - grade 3; Pitch test (second time) - grade 50; Tonal memory - grade 9. These tests were given under the laboratory conditions and free from outside influences.

Interpretation. From the foregoing analysis and treatment, the following factors stand out.

He was hard of hearing, not happy from 14 to 17 years of age, socially timid; embarrassed by personal affairs; lacked executive ability, always tried to "excuse" his failures, and didn't laugh easily. He had had the habit of twitching his face, neck or shoulder muscles. He was sensitive, shy, timid, good-natured, contented, very affectionate, and intelligent. To the question, "Are you contented with things as they are?", he answered, "Why in certain ways." Note hesitancy word "why" in his answer. He could write more easily than he could talk, recalled names more easily than faces; and hesitated a long time before deciding things. His father stammered and he, too, had attended a stammering school. The boy was suggestible.

Little was accomplished through the exercises given. ~~The fact that he did not practice on the exercises given.~~ The fact

Chapter V

that he did not practice on the exercises very much in college, where grades and the passing of courses are more important than success in speech was probably partly responsible for lack of progress.

Although the personality defects need to be eliminated by psychological methods, it seems advisable to use certain simple speech exercises to develop correct speech imagery and to aid in quick and easy articulatory movements.

Furthermore, the fraternity life in this case was probably counteracting all the work that I was doing. Certainly the university would have been justified in ascertaining that fraternity brothers do not imitate the speech disorder individual.

Case L. - A stammerer, came to me for help, as he heard that I was studying speech disorders.

The following information was obtained from the University records:

From high school: "Mr. _____'s marks would have been higher if he had not taken part in so many school activities. He has been president of the Student Council, Captain and three years a player on the football team, manager of baseball, captain of basketball team." What are the student's most unfavorable traits? a. Mental; "Slow thinker"; b. Moral -----; c. Physical State of health; poor, average, good." Physical defects? "Stammerers". Financial backing: "ample," sufficient, insufficient. Has the student been the subject of disciplinary action? "No." Most difficult subject? "Foreign

Chapter V

language." "He is active in church work; he does not dance. His father is a clerk in a store."

The following information was obtained by using the Stinchfield Questionnaire:

Case L. Age? 21. Brothers and sisters, names and ages? Brother 25 and sister 28 (deceased); your weight? 165 lbs. Your height 5 ft. 11 $\frac{1}{2}$ in. Have you ever worked? Yes. At what? Surveying for State. Did you have many chums at school? Yes. Did you play all games as well as the average boy or girl in your crowd? Yes. Do you like indoor or outdoor games best? Outdoor. In what sports do you excell? Football and Basketball. Are you contented with yourself, and happy most of the time? Yes. Are you often sad or moody? Yes. Jealous? Yes. Do you feel well most of the time? Yes. Suspicious? No. What things make you angry? Reasonable things. Have you a chum who domineers over you? Yes. Do you smoke? Yes. How often? A package per day. Are you forgetful? Yes. Do you sleep well? Yes. Were you happy when you were 14 to 18 years of age? Yes. Are you happy most of the time? Yes. Are you right or left handed? Left. Which hand did you first learn to use in school? Left. Do you make up your mind independently of other people? Yes. Are you easily influenced? Yes. Stubborn? Yes. Have you a tendency to worry much? Yes. Do you blame yourself or others, when things go wrong? Myself. Were you ever retarded a year or less in school? Yes. Ever repeat more than one grade? No. Do you follow a regular plan for each day? No. Do you do things in a happy-go-lucky fashion, or are you methodical? Methodical. How many times

Chapter V

a week do you go to church? None (when I'm home I do.) What form of amusement do you most enjoy? Swimming, athletics, football, movies, pool. Are you socially timid? Yes. Do you keep things mostly to yourself? Yes. Can you talk things over frankly with your parents at home? No. What sorts of things embarrass you? Women. Have you executive ability? Yes, No. Do you enjoy managing, or prefer to have someone else manage affairs for you? Enjoy managing. Can you take responsibility well? Yes. Do you succeed when you try to manage things? Yes. Is it easy for you to get along with a "boss"? Yes. Do you always try to "excuse" your failures? Yes. Is it easy to make you laugh? Yes. To make you angry? No. Do you change frequently from gay to sad? No. Did you ever have the habit of twitching your face, neck or shoulders muscles? Yes, when talking. Do you lack self-confidence? Yes. Have you a good appetite? No. Underline the traits which you think apply to you: sensitive, stubborn, timid, deliberate, good-natured, very affectionate, lacking in confidence, moody, dependable, practical, well-mannered, neat, respectful to your elders. What sort of a future are you planning for yourself? Get married and make a good living. Can you write more easily than you can talk? Yes. Do you hesitate a long time before deciding things? Yes. Is your speech better in the presence of strangers? Yes. Worse in the presence of people best known to you? Yes. Did anyone in your family ever have any speech difficulty? No. When did you first become conscious of the fact that your speech was no good? When I was young. What effect has it had upon your social life? Bad - It

Chapter V

makes me shy. School work? Bad - In recitation. Are you easily discouraged? Yes. No.

The following results were obtained on part of the Seashore musical tests under laboratory conditions: Intensity test - grade 97; Pitch test - grade 56; memory test - grade 29.

The following results were obtained through individual conferences.

Conference No. I. - He had taken work under a woman speech specialist who was approximately thirty years of age. She gave him drills in pronunciation of vowels and consonants three times a week for six weeks. The charge was five dollars for each lesson. Exercises were given on saying a number of consonants at one time, thereby trying to improve the breath control. He was required to speak slowly in order to prevent any excitement. If he snapped his fingers when the difficulty arose, the teacher made him go back and say the words without snapping his fingers. She told him that he spoke on the inhaled breath when he should speak on the exhaled breath. Work was also given in the proper formation of consonants. He also visited a Coué school. The Coué method was as follows: Get the group in the room and have them look at the floor about two minutes with eyes closed and head bent in order to concentrate. They dwelt on the sub-conscious mind, saying that fear over-ruled the person. However, he did not think much of the sub-conscious mind; he had confidence in his own tutor.

On returning to high school, he was able to get along a year without being bothered with his difficulty. He played

Chapter V

football for three years, was chairman of the student council where he had to make speeches, and engaged in various other activities. He said he was "going pretty good then."

He had been troubled ever since he could remember. His impediment was most noticeable when he was tired. He watched for words, especially noticing the consonants f, m, p, h, and k. He could read well by himself; consonants did not bother him then. Talking over the phone did not annoy him very much, for the most part. His hours of sleep were 12 or 1 to 6:30 or 7.

Conference No. II - At the age of four years the speech trouble began; at the same time he had diphtheria.

There was a fear of pronouncing a word wrongly in the presence of others or a fear of "not getting the word out." According to him, the stutterer starts a word but is not able to get it out, whereas the stammerer speaks on the inhaled breath or without any breath.

He said, "It seems that I have improved since last time." I advised him to take up boxing as a cure for negativism -- the inability to look a person in the eye. Practice was given on consonants and in reading. Also, practice was given in projecting his voice.

Conference No. III - He said he hardly ever dreamed. The last time he dreamed it was about cutting classes. When he was young, and sometimes at the present time, he dreamed of being chased by somebody. His feet seemed so heavy that he could not run. Sometimes he jumped and then woke up. In the Academy,

Chapter V

during the football season, he dreamed of tackling a fellow and woke up with a pillow in his arms. One night before a football game he dreamed of intercepting a forward pass and the next day he intercepted the only pass that he had intercepted in football.

He was knocked out easily while playing football; he played center on the team. Once he was knocked out for almost two hours. He talked quite a little while knocked out and told the Principal what he thought of him. The Principal was rather strict and Case L thought some of his ways were not all right. The teacher was a man about thirty years of age.

One fourth grade teacher was a "pretty tough egg." He had a bad temper and gave him a shaking before the other pupils. This annoyed him, particularly as he was rather bashful then.

He worried for fear that his folks would find out that he was being knocked out in football, although they did not stop him after he made up his mind to play. The parents did not want him to play for fear he would get hurt, although they knew the older brother got through without being hurt. He was knocked out at least fifteen times during the year, four of them during the first game. On being asked how it felt to be knocked out, he replied, "When I came to I wanted to play all the harder." He never thought much of being hurt.

His former tutor started in with tongue exercises to make sure that he was not tongue-tied. She also explained the difference between stammering and stuttering, and tried to eliminate the snapping of his fingers during speech.

The doctor recommended cod liver oil for bodily improvement.

Chapter V

I recommended that he go to bed earlier, at least by 10 o'clock.

Conference No. IV. - His father had been strict but was not now. The father was five feet, six inches in height. The father talked fast at times when he became excited; the mother, also, talked quite fast. He did not stammer very much around his girl. His girl was about five feet, six inches in height. She talked at a medium rate. English was the only language spoken in the home. His vocabulary developed late. The speech difficulty was first called to his attention by his playmate. In general persons laughed at his difficulty. His speech impediment was getting better during this conference. He thought the cause for his relapse in the academy had been due to a lack of practice and because he was getting tired. He had a fear of being watched, or of feeling inferior to the one he was talking to, or of being laughed at.

During Conference V., there was a report on the assignment in T. A. William's "Dreads and Besetting Fears", page 40-48. Willaims here advises that the speech defective have a loose jaw. Case L thought there was "quite a good deal in that."

Conference No. VI., his parents remarked on his improvement when he was home the last time. He thought he was improving in confidence.

Conference No. VII centered on his scholastic standing. His speech had improved.

Conference No. VIII was given over to exercises designed to develop vigor and strength of expression. He had not practiced much on these exercises outside of the conference hour.

Chapter V

The following information was obtained from a very close fraternity brother of Case L: "Case L could not put his mind on his work although he worked until two or three o'clock in the morning many times. I urged him to practice on his exercises many times; his girl also urged him to practice on the exercises; she is an excellent girl and much interested in the boy's future. They plan to get married next summer. Case L, on a few occasions, has had a tendency to get drunk. I razzed him out of it. He is a very good fellow and very likeable. At one time he broke out crying while talking to me. He would not say what was wrong for several minutes, but finally he said that one of the other brothers had mocked him; this had cut him to the heart. This seemed to make him more determined to conquer his speech difficulty."

CONFERENCE No. IX - The stammering became worse during final examinations. He said the fraternity boys did not bother him or imitate his speech impediment. A change in his hours of sleep was advised. A study schedule and a speech practice schedule were requested in order to make his work more methodical, and thus insure time for speech exercises.

Interpretation - A Bible verse fits Case L fairly well: "The spirit indeed is willing but the flesh is weak." There was a decided inferiority complex which needed to be removed before the speech could be improved in any appreciable manner. College scholastic demands and fraternity life far over-shadowed any real efforts on speech exercises.

Apparently much help was derived from boxing work in the

gymnasium.

The work he took under a speech correction specialist seems to have been valuable in eliminating some^{of} his "tics" or speech mannerisms.

He needed to develop more moral stamina in order to have a conviction of a purposeful existence. Much of the help given him was due to the proper use of suggestion but many things were counterbalanced by environmental factors.

Case M, a stammerer, came to me for help. From the University records, I obtained these facts: Age of father - 42. Age of mother - 30. Case M eldest, 2. sister, 3. brother, 4. brother. He was interested in the "religious life of the school."

The following information and advice was received through correspondence with a stammering school: "Case M came to me about five years ago suffering from an acute case of amnesia. The main items in his correction consist in making him always hear the vowel before attempting to articulate, and in the proper use of suggestion."

The Stinchfield Questionnaire brought out the following facts: Age? 19. Your weight? 148 lbs. Your height? 5 ft. 8 in. Age when you started to school? 5. What study was hardest? Latin. Did you generally like your teachers? Yes. Why did you leave school? Sickness in second grade. Have you ever worked? Yes. At what? Clerking and farming. Wages earned at last job? \$20 per month. Did you have many chums at school? Yes. Did you play all games as well as the average boy or girl in your crowd? Yes.

Chapter V

Do you like indoor or outdoor games best? Outdoor. Are you fond of athletics? No. In what sports do you excell? None. Are you contented with yourself, and happy most of the time? Yes. Are you often sad or moody? Sometimes. Jealous? No. Do you feel well most of the time? Yes. What excites you? Games. Suspicious? No. What things make you angry? Nothing. Do you eat between meals? Yes. Are you forgetful? No. Are you happy most of the time? Yes. Do you sleep well? Yes. Dream much? Yes. What sort of things do you dream about? Everything. Do you make up your mind independently of other people? Yes. Are you easily influenced? Yes. Have you a tendency to worry much? No. Do you blame yourself or others, when things go wrong? Either. At what age did you begin to walk? About 1½ yrs. To talk? 1½. Do you become easily upset, or confused? No. Can you sit still without "fidgeting"? No. Is your eyesight good? Yes. Do you follow a regular plan for each day? Yes. Do you do things in a happy-go-lucky fashion, or are you methodical? Methodical. How many times a week do you go to church? Twice. What form of amusement do you most enjoy? Movies. Are you sbcially timid? No. Do you keep things mostly to yourself? No. Can you talk things over frankly with your parents at home? Yes. What sorts of things embarrass you? Nothing. Have you a strong sense of curiosity? Yes. Are you good at mechanical things? No. Have you executive ability? No. Can you take responsibility well? Yes. Is it easy for you to get along with a "boss"? Yes. In temperament are you emotional? Sad. Active uncontrolled type? No. Is it easy to make you laugh? Yes. To make you angry? No. Did you ever have the habit of twitching

Chapter V

your face, neck or shoulder muscles? No. Do you lack self-confidence? No. Have you a good appetite? Yes. Underline the traits which you think apply to you: impulsive, obedient, deliberate, good-natured, contented, very affectionate, dependable, imaginative, practical, well-mannered, respectful to your elders, sociable, intelligent, refined. What sort of future are you planning for yourself? Farming. Is it easy for you to think of things to say and do with people that you know very well? Yes. Among strangers? No. Can you write more easily than you can talk? Yes. Is your memory good? Yes. Do you recall names or faces more easily? Faces. Can you think things out for yourself? Yes. Do you hesitate a long time before deciding things? No. Did anyone in your family ever have any speech difficulty? Grandfather. What? Stuttering slightly. When did you first become conscious of the fact that your speech was not good? Second grade. What effect has it had upon your social life? Not much. School work? None. What efforts have you made to overcome it? Gone to a school; tried talking slower and lower. Are you willing to cooperate with us, in overcoming your difficulty? Yes. Are you willing to be guided by us in the matter of good habits, smoking, recreation, hours of rest, practice, etc.? (No response) Have you a good deal of self-control? Yes. Are you easily discouraged? No. Are you willing to help us by helping yourself? Yes. Are you willing to practice regularly for certain parts of each day, and report to us about it, in your conferences? When I can. Write here any additional facts which you think are important.

Chapter V

"At the age of seven I had to leave school because of nervous disorders. Resumed school in my own class at age of ten, having studied while out of school."

The Jung word-association test brought quick and spontaneous responses.

Conference No. I. - Case M was a college Sophomore. He had been troubled with his speech since the second grade in school. He went to a stammering school for a period of six weeks during his Freshman year in High school. His mother died when he was almost eight years old. (He hesitated considerably on the word "mother") He was, also, eight years old and in the second grade when the speech difficulty began. His father married again. According to Case M, the possible cause was in "mimicking another person who stammered." He let himself slip back after being at the stammering school; "I did not keep my voice at a low pitch as I should", he said. Later he remarked: "It was three or four months before I began to go back to my former condition." I suggested that he should be able to get over his difficulty in two months.

Conference No. II. - Vowels bothered him, especially i, sometimes e, occasionally a short o; L and short e sometimes; and T was particularly hard. He had all kinds of dreams and they were about everything imaginable. He was very seldom afraid in his dreams. He enjoyed playing the piano as a hobby. The first grade teacher was a very good one but was a little bit too strict; in his words: "As a kid, I did not like her." He had few friends among the girls and did not mix with them very much.

Chapter V

His introspective report on trying to say a "sticker" word showed that he tried to think of a synonym.

Conference No. III. - He fluctuated in success, with possibly some improvement. In giving the Jung-association test the word nervousness produced the response word, "fear".

Conference No. IV. - He was given drill on speech exercises. There was good confidence. There was more difficulty in speaking at home than elsewhere during the past week; this circumstance had not happened before. It had been a hard week due to studying late for examinations.

After the above conference, Case M failed to appear for conferences for a period of several months.

Conference No. V. - He was fluctuating in success, although he thought he was improving. His conversation was much better. He was averse to the suggestion of Knight Dunlap that a person should consciously imitate his mistakes in order to eliminate them.

Conference No. VI. - With his consent, I tried hypnosis to determine the exact cause of his trouble. When it was suggested that he was getting sleepy, more sleepy, and "now he could not open his eyes", I noticed his eyes open. The same was true with regard to his hands when the state of "plastic-rigidity" was being induced. Later he admitted that when the suggestion was given, he kept saying to himself that he could do the opposite; and furthermore, he tried to do the opposite. This work was done under quiet laboratory conditions and the person was in a half-reclining position, conducive to

Chapter V

hypnosis.

Interpretation - In this case there seems to be positive proof of a traumatic shock, as Freud would call it, at the basis of his speech difficulty. These things bear evidence of such a statement; trouble with the grade school teacher, death of mother, -- an especially strong shock to the eldest son, nervous breakdown with subsequent amnesia, all of which was followed by a speech difficulty which may have had its immediate release through imitation; furthermore, there was an accentuation of the difficulty through the father's re-marriage. The main need was in bridging the amnesic gap and in accentuating this with simple speech exercises and proper suggestion.

Case N - a stutterer, was a college Freshman, twenty years of age. The following are answers to the Stinchfield Questionnaire: Brothers and sisters? Sister 18, sister, 16; sister 10, brother 8, brother 6, All living. Weight? 190 lbs. Height? 6 ft. 3 in. No nervous breakdown. Language hardest rather distasteful. Behaviour in school? Fair. Like science, history, psychology, law. Liking of teachers varied. What kind of work have you done? News route, Grocery, Drug, Farm, Poultry, Highway, Bridge, Railroad. Many chums? Yes. I go by myself on occasions and enjoy it. Friends are numerous. Ability at athletics varied with experience in same. Sport excelled in? Rifle, football. Not necessarily happy but in pleasant frame of mind. Indifference to circumstances surrounding (at times). I am moody and somewhat temperamental.

Chapter V

Anger expressed when taken advantage of. No fear of persons.

Speech not affected by fright. Headache on rare occasions.

I smoke occasionally, irregular in eating - forgetful - sleep

good - no fear. Not necessarily happy from 14-18. Not happy

but pleasant. Never left home without knowledge of parent.

Dream little - can't record dream. Independent of mind. Not

stubborn - worry insignificant. Walked and talked at 2 years.

Do you follow a regular plan for each day? Yes. Do you do

things in a happy-go-lucky fashion, or are you methodical?

Dependent on subject. How many times a week do you go to church?

None. To the movies? _____ Dances? _____ Library? 2 or 3.

What form of amusement do you most enjoy? Theatre, tennis,

athletics, concerts, football, pool. Do you keep things

mostly to yourself? Yes. Can you talk things over frankly

with your parents at home? Yes. Have you executive ability? Yes.

Do you enjoy managing, or prefer to have someone else manage

affairs for you? Self. Can you take responsibility well? Yes.

Is it easy for you to get along with a "boss"? No. In

temperament are you emotional? Yes. Active uncontrolled type?

_____. Do you change frequently from gay to sad? Yes. Did you

ever have the habit of twitching your face, neck or shoulder

muscles? Yes. Do you lack self-confidence? Yes. Have you a

good appetite? Yes and No. Underline the traits which you

think apply to you: (those underlined twice are more important

in his estimation) sensitive, suggestibility, conceited, im-

pulsive, deliberate, contented, very affectionate, lacking in

confidence, moody, suspicious, given to exaggeration,

Chapter V

imaginative, practical, respectful to your elders, sociable,
refined, vulgar, forgetful, persistent. Are you contented with
 things as they are? No. "Contentment in discontent." What sort
 of future are you planning for yourself? Law.

Speech

Is it easy for you to think of things to say and do, with
 people that you know very well? Yes. Among strangers? Yes and No.
 Are you easily embarrassed? Yes. How? Reference to myself. Can
 you write more easily than you can talk? Yes. Do you feel a
 lack of confidence in your ability to make a good impression on
 people? Yes. Is your memory good? No. Do you recall names or
 faces most easily? Faces. Can you think things out for yourself?
Yes. Do you hesitate a long time before deciding things? Some-
times. Is your speech better in the presence of strangers? Yes.
 Did anyone in your family ever have any speech difficulty? Yes.
 What? Stuttering. When did you first become conscious of the
 fact that your speech was not good? 5 years. What effect has it
 had upon your social life? Backward in expression. School work?
Not so much. Business or other affairs? Not bothered. Have you
 a good deal of self-control? Yes. Are you easily discouraged?
Yes and No. Are you willing to practice regularly for certain
 parts of each day, and report to us about it in your conferences?
Yes.

These facts were brought out in the first conference: "most
 trouble when excited,--purely nervousness." After remaining
 quiet for a time and suddenly attempting to put the voice in use,--

Chapter V

under questioning or a spontaneous answer,--the voice failed to function; as in "pop-pop-popular" or in "who" or "what". Sometimes there was trouble with vowel sounds. "Wh" sounds troubled him most. The difficulty began at an early age. He was laughed at considerably. He began to conquer the difficulty at the age of thirteen. He stated he could not talk as fast as he thought. In conference, part of the time, the student did not realize he was stuttering.

In the next conference he said that "flying off the handle was done more for effect than anything else." No definite exercises were given nor was he told the cause of his difficulty. He was given reading material so that he could work out his own solution, as far as possible.

Interpretation - These answers seem to indicate rather clearly the personality of Case M: "I go by myself on occasions and enjoy it. I am moody and somewhat temperamental. Anger expressed when taken advantage of. No fear of persons. Speech not affected in fright. Not necessarily happy from 14-18. Not happy but pleasant, dream little - can't record dream, - independent of mind. Not stubborn - worry insignificant. Walked and talked at two years. 'How many times a week do you go to church?' None. Contentment in discontent." Further indications may be noted from the rather frank answers listed above.

Case M had a decided superiority complex and was negatively suggestible. Hence, I tried to lead him to a solution of his own problem by means of suggestions. This was accomplished to

Chapter V

some degree.

A few inconsistent answers may be noted above, such as impulsive and deliverative, or forgetful and persistent.

This was one of my most difficult cases to handle.

Conclusions

First, a strong desire for good speech must be developed, especially in individuals having minor speech impediments.

Second, speech improvement is often largely contingent on personality changes.

Third, each individual requires a different treatment but there are elements in common in all treatments.

Fourth, the use of psychological methods of treatment increases according to the increased degree of personality or emotional maladjustment; the use of phonetic methods increases as the degree of personality or emotional maladjustment becomes less and less. It seems advisable to use both psychological and phonetic methods with all types of speech disorders.

Fifth, little can be accomplished where the scholastic and the environmental demands far outweigh the time which should be devoted to this work.

Sixth, a rather thorough case analysis should be worked out before treatment is begun.

Seventh, a student's analysis, such as is given in answering a questionnaire, is not always a correct analysis, though it is usually a big help.

Chapter V

Eighth, the lack of time at the disposal of the instructor has influenced the actual treatment to a great extent.

Ninth, a quick cure is not always a permanent cure.

Chapter VI

SUMMARY AND SUGGESTIONS

The purpose of this thesis has been primarily to set forth methods of procedure in a study of speech disorders. To facilitate the use of certain methods these things have been added:

Appendix A. - Defined terminology used in Speech Correction.

Appendix B. - Bibliography given on all the phases of speech correction, though the author does not vouch for the authority of each reference included.

Chapter II. - Classifications presented according to various speech specialists.

Chapter III. - Differentiation, symptoms, causes, and treatment of Delayed Speech, Baby Talk, Lispings, Nasality and Nasal Twang, and Stuttering and Stammering was discussed.

Chapter VI. - The application of methods to fourteen actual cases was shown.

Chapters III and IV have been devoted especially to the presentation of methods of procedure. In Chapter III differentiated procedures for each of the types spoken of above have been presented. In Chapter IV the author has attempted to present points in common with all cases which make up a general procedure. It seems that this last mentioned step should be

Chapter VI

most worth-while to the beginner in speech correction.

Summarization under each chapter heading already has been made. For these, the reader is referred to the closing remarks at the end of each chapter. It would be impossible to adequately summarize the material, especially in Chapters III and IV. Briefly, however, the following things stand out:

First, the ability to make a careful analysis is necessary.

Second, any method of treatment is contingent upon the causes of the present speech difficulty.

Third, the specialist should be on the alert to detect small successes.

Fourth, the integration of the personality is needed before correcting speech disorders, though the two steps may go hand in hand.

Fifth, while psychological methods should be used, for the most part with neurotic speech disorder cases, simple speech exercises should not be forsaken entirely.

Sixth, a phonetic method should be closely allied with principles of psychology.

In concluding, the following suggestions are made:

1. That the psychological approach to speech disorders be stressed more in the future.
2. That speech tests be given to entering Freshmen students at the University of Maine and at Butler University, as

Chapter VI

in Mt. Holyoke College:

- a. To improve the speech.
 - b. To more adequately guide the student into his special course of study.
 - c. To save the college money and effort through elimination of the unfit.
3. That future investigation be carried to the grammar schools and high schools throughout the state.
 4. That a state supervisor of speech correction be appointed by the state superintendent of education to investigate the prevalence of speech disorders.
 5. That a psychology clinic be established, as at Dartmouth, to handle cases of speech disorders which have a pathological background; and that other cases be referred to a special class in speech correction in the public speaking department.
 6. That further specialization in speech correction be started on the so-called minor speech disorders.

APPENDIX "A"

Unless otherwise indicated the definitions are based upon Gould's Medical Dictionary. Where author and page reference are given the full title of the book may be found in the bibliography - Appendix B. Definitions in parentheses are my own or ones that have been taken from various lecture notes.

- A. acromegaly - an abnormal development, chiefly of the bones of the face and extremities, associated with disease of the pituitary body or thyroid gland.
- aphemia - "that motor aphasia in which the individual is unable to use appropriately the muscles of phonation." Franz, "Nerv. & Ment. Reed." P. 191.
- agraphia - "an inability to express one's self in writing", Franz, "Nerv. & Ment. Reed." P. 191.
- amnesia - "Incapacity to form an antecedent verbal image is amnesia", Martin's "Manual of Sp. Training", P.16
 - inability to arouse mental images, Bluemel, "Stam. & Cog. Def. of Sp.", P. 106.
 - loss of memory for words

Anarthria literalis - stammering

- anarthria - an inability to articulate distinctly.
 - "anarthria is the term applied to that form of speech which is absolutely unintelligible. It is neither aphasia nor aphonia. In anarthria the patient can emit sounds, but they convey no sense." Hunt. P. 189.

Appendix "A"

- adenoids - inflammatory enlargements of the pharyngeal tonsil, Borden & Busse, P. 243.
- aglossia - congenital absence of the tongue.
- agnathia - congenital absence of the jaws.
- agraphia - an inability to express ideas in writing.
- alexia - word blindness; an inability to read.
- aphasia - loss of power of speech from cortical lesion.
- conduction - that due to lesion of the conducting path.
- sensory - inability to remember or understand words.
- aprosexia - an inability to fix the attention.
- aphonia - a loss of voice, due to peripheral lesion.
- asemia - (or asymbolia) - an inability to comprehend words or signs.
- aural - pertaining to the ear.
- adynamia - a deficiency or loss of vital power.
- asthenic - feeble; without strength.
- assimilation - (the act of a sound influencing a sound or sounds near it) as in "I used to" - s to z or breathed to voiced.
- abulia - a loss or defect of will power.
- aphasia - "a case of impaired intelligence", S. A. Wilson, "Disorders of Expression", p. 476; Chap. 11 Whites' & Jelliffe's Treat. Nerv. & Ment. Dis."
- alalia - paralytic impairment of speech.

Appendix "A"

asymbolia - (or asemia) an inability to comprehend words or signs.

achromatopsia - color blindness.

astereognosis - loss of the stereognostic sense, or power to recognize the shape and consistency of objects by touch.

agnosia - The condition of a patient unable to recognize persons or things, Funk & Wagnalls.

B. Baby talk - (see infantile perseveration) abbreviations of Eng. Blantons.

bulbar - bulbous; pertaining to the medulla.

bradylalia - a slow and disordered utterance.

bronchi - main branches of the trachea.

bulimia - excessive, morbid hunger.

bifid - cleft; divided in two; forked.

C. Crescentic - moon-shaped, "notched", E. L. Hunt, P. 28.

chorea - St. Vitus' dance; involuntary muscular twitchings.
Huntington's - chronic, progressive chorea.

cleft palate - a congenital palatine fissure.

cluttering - the dropping of letters or syllables by a hurried or nervous speaker.

clonic - applied to spasms with alternate relaxations.

cognates - two consonants which coincide in their noise components, - differing only in that one is tonic and the other atonic.

cretinism - an endemic disease, characterized by idiocy, goiter, & a deficient development of the organism.

Appendix "A"

D. Dysarthria - disturbances in articulation (Hunt, p. 187).

dyslalia - (Gould's Med. Dict.)

dyslalia - a structural defect of speech; stuttering.

diathesis - a constitutional predisposition to disease.

deviate septum - malformation of the thin vertical partition of bone which normally divides the nasal cavity into two equal halves. Borden & Busse, p. 239.

diphthong - during the utterance of a vowel -- "If the shape of the mouth changes, two adjustments have been made and the combination is a diphthong",

Barrows and Corrts, p. 8; (or) -

- "combination of two vowel sounds in the same syllable", Barrows and Corrts, p. 107.

- "If a sound is characterized by two distinct vowel qualities which are caused by a change in the position of the tongue or lips but are made with no diminution of the air pressure, it is called a piphthong". Avery, Dorsey & Sickels, p. 110.

dyspnea - (disp-ne-ah) - difficult or labored breathing.

dyslalia - a structural defect of speech; stuttering.

digraph - two letters standing for one sound, Barrows & Corrts, p. 7.

dysphonia - difficulty in phonation.

Appendix "A"

E. echolalia - aphasic repetition of another's words.

elision - the eliding or striking out of a part of a word for euphony or ease of pronunciation, in o'er, e'er. Funk & Wagnalls.

F. friable - easily broken or pulverized.

fauces - the throat, from the mouth to the pharynx.

fraenum - (frenum) lingual - a fold of mucous membrane under the tongue.

falsetto- the artificial tones of the voice, higher than the chest voice or natural voice; also, a singer possessing such a voice. Funk & Wagnalls.

G. Graves disease - or Basedow's disease - exophthalmic goiter.

- goiter with abnormal protrusion of eye balls and cardiac palpitation.

glottis - aperture between the arytenoid cartilages of the larynx. Gould Med. Dict. A narrow fissure between the vocal chords. Borden & Busse. p. 17.

H. Hasty speech - undue speed in utterance. Swift, p. 60.

harelip - a congenital fissure of the lip.

hemiplegia - paralysis of one side of the body.

hypertrophy - the undue or excessive growth or development of an organ or part of an animal or plant, Funk & Wagnalls.

hysteria - a functional neurosis with abnormal sensations, emotions, or paroxysms.

hypochondriasis - extreme depression, with morbid anxiety regarding the health.

hypoglossal - under the tongue.

hypnotism - the state of artificial somnambulism.

hanging turbinates.- "inflammation of the little folds of mucous membrane which occur in the outside lateral walls of the nasal cavity." "Borden & Busse, p. 242.

I. idioglossia - (individual language) disorder of speech marked by substituting one consonant for another.

infantile speech - baby-talk.

implosion - (phonetically) The pressure of air produced when the vocal organs are closed in the uttering of certain consonants as p or t. Funk & Wagnalls.

infantile perseveration - "Any expressions of this character (as, 'titty tats', 'tummies', 'twolley tars') which persist beyond the years normally allotted infancy (1-6) may be properly considered as speech defects and classified under the general heading DEFECTS OF INFANTILE PERSEVERATION." Borden & Busse, p. 130.

I. lallation - "the use of too many L sounds", McCullough & Birmingham, p. 11.
- lalling (especially on the letter r). Bluemel, p. 332.

lalling - inability to articulate clearly; an infantile form of speech, Bluemel, p. 332.

Appendix "A"

lalophobia - speech fear; the fear of talking.

labial - relating to the lips, Bluemel, p. 332.

lisp - "is a substitution of th, voiced or voiceless, for sh or s or z". Blanton, p. 266, Drummond "Speech Training and Public Speaking".
 "In its broad sense, lisp is the faulty production of sibilant sounds", (s, z, sh, zh).
 Peppard 125.

lisp, lateral - "By lateral lisp is meant the emission of sibilant sounds over one or both sides of the tongue"; Peppard, p. 133.

lisp neurotic - defects of emotional adaptations and coordinations.

- mechanical - present when the teeth or jaws or dental arch are malformed in such a way that the letters cannot be made correctly. Blantons.
- inability to pronounce certain letters or combination of letters, the tendency to omission, transposition, substitution, or slurring over of sounds. Terman, p. 338.

M. maxillary - pertaining to the jaws.

N. nasality - "the excessive use of nasal tones, due to a fallen palate or to greatly enlarged tonsils".
 McCullough & Birmingham, p. 14.
 - "is the emission of too much sound through the nose," F. Martin, "Manual of Sp. Training", p. 29

neuropathic - pertaining to nervous diseases.

nasal twang - "a lack of nasal resonance, due to some stoppage of the nasal passages." McCullough & Birmingham, p. 14.

- "nasal twang is the emission of too much sound through the mouth", F. Martin "Manual Sp. Training", p. 29.

nasal polypi - "abnormal growths attached to or imbedded in the walls of the nasal cavity", Borden & Busse, p. 240.

P. phonics - deals with the relation of letters to sounds. Barrows and Cordts, p. 3.

- "the application of phonetics to the teaching of reading. Barrows & Cordts, p. 4.

phonetics - the science of speech sounds, Barrows & Cordts, p. 3.

- "is the science of pronunciation, the science which investigates the mode of formation of speech sounds and their distribution in connected speech". D. Jones, "Outline of English Phonetics", Rev. Ed. (Smith, J. F.) "The Place of Phonetics in a System of Speech Training". U. of Illinois, Thesis 1926).

phonetics - "Phonetics as a science simply determined the facts of provincial and class dialects; it is not interested in right or wrong; all are of equal value. Phonetics the Art is concerned with teaching certain of these facts with some

distinct object in view:

1. Language is a means of communication. We teach the form best suited to that purpose. We avoid provincialisms, local dialects.
2. Language indicates social standing. We teach the form which gives the impression that the speaker belongs to the cultured class. We avoid vulgarisms, low class dialects." William Tilly quoted by S. A. Pray, Q. J. Speech Education, Vol. 9, p. 163, 1923.

- paresis - 1. Slight paralysis;
2. General paralysis of the insane.
- periosteum - the fibrous membrane investing the surface of bones except at the points of tendinous and ligamentous attachment, and on the articular surfaces, where cartilage is substituted.
- phoneme - "A group of vowel sounds so nearly alike that they impress the ordinary ear as the same sound may be called a phoneme, or vowel family".
Avery, Dorsey & Sickels, p. 111.
- prosthesis - the artificial replacement of a lost part.
- prosthetics - the part of surgery treating of prosthesis.
- plosive - Phonetically, an implosive or explosive sound.
Funk & Wagnalls.
- phonation - The emission of vocal sounds.

"psychotherapeutic treatment in practice falls into a number of divisions, of which the most important fall under the heads of hypnosis, suggestion, reeducation, and psychoanalysis." Collier's New Encyclopedia, Vol. 7, p. 373.

psychanalysis - The mental processes comprise two groups. One controls the conscious daily ideas and acts; the other the subconscious ideas and wishes of the past. These constantly merge, the conscious group dominating. A break in the process, through unusual cause creates a psycho-neurosis. If a patient is led to relate unreservedly, up to the time of the break, all ideas, proper or improper, and long forgotten thoughts then the pathogenic link is found and the patient realizing it regains control and recovers.

S. spastic - pertaining to a spasm; rigid.

speech defect - "The term 'speech defects' is applied to those mispronunciations which are due either to malformation or to wrong use of the organs of speech". I. C. Ward, p. 1.

- "Any acoustic variation from an accepted speech standard so extreme as to be (a) conspicuous; (b) confusing or (c) unpleasant." Borden & Busse, p. 126.

Appendix "A"

- syphilis - a chronic, infectious, venereal disease, which may also be hereditary, inducing cutaneous and other lesions.
- sigmatism - imperfect or improper use of the s sound in speech.
- sibilant sounds - (s,z,sh,zh) Hissing, wheezing as a rule.
- stammering - "according to its universally accepted meaning in English, is a halting, defective speech characterized by a transient hesitancy in producing a sound, or in passing from one sound to another." F. & L. Martin, p. 11.
- "In the author's usage of this term, 'stammering' is synonymous with 'stuttering'". Borden & Busse, p. 278.
- stuttering - "is an analogous (i.e. with stammering) form of speech characterized by the repetition of a sound, letter, word, or phrase before passing to the next. It is, in the majority of cases, an incipient form of stammering. Stuttering may be detected not only in speech, but also in the incoordinations of various physical activities as, in golf, gymnastics, typewriting, telegraphy and and chirography." F. & L. Martin, "Manual of Sp. Training." p. 11.
- stuttering - Stuttering is a diseased state of mind which arises from excessive timidity and shows

Appendix "A"

itself in speech peculiarities, E. W. Scripture, Chap. 12, p. 511. White & Jelliffe, "Mod. Treat. of Ment. & Nervous Diseases."

- breaking down of rhythmical speech due to a blocking of muscular coordination.

Blantons. - - and stammering, - the spasmodic repetition of the initial sound of a word or syllable, p. 340. Stuttering is really a speech phobia, p. 355, Terman.

Appendix "B"

BIBLIOGRAPHY OF MATERIAL READ AND FOR FURTHER READING

The purpose of compiling the following references is to facilitate the study of speech disorders from the standpoint of the teacher and the prospective specialists in this work.

This material has been organized in seven divisions namely:

- I. Anatomical and Physiological basis,
- II. Psychological basis,
- III. Phonetic basis,
- IV. General references on Classification, Cause and Treatment,
- V. Methods of Procedure,
- VI. Extension of work in the schools,
- VII. Experimental division.

Obviously there is considerable overlapping of material from one division to another; this can not be avoided without needless duplication of references under each heading. This list is restricted mainly to recent articles and books in English. It is not exhaustive.

The books are listed first under each heading. Their availability is indicated by the prices. References which are starred may not be available at present; publisher's catalogs give no definite indication. In some cases special prices on these books are given to teachers. Books listed in this

Appendix "B"

bibliography may be obtained through the Expression Company,
Boston, Massachusetts.

I. Anatomical and Physiological basis.

1. Dodds, G. & Lickley, J. D. -- The Control of the Breath. Oxford University Press, 1925. pp. XVI & 246 with 118 figures in the text. \$1.75.
2. Gould, George M. -- Medical Dictionary: 40,000 words pronounced and defined. P. Blakinston's Son & Co., 1920-1926 \$2.00
3. Kelson, W. H. -- Diseases of the Throat, Nose, and Ear. Oxford University Press, 1915. p. XV & 270, with 5 colored plates and 89 illustrations in the text. \$3.20.
4. Laurens, George -- Oto-Rhino-Laryngology. William Wood & Co. \$5.00.
5. *Meyer, -- The Organs of Speech. D. Appleton & Co.
6. *Nadoleczny, Max -- Diseases of Children. Lippincott. 1914.
7. Waggett, E. B. -- Diseases of the Nose. Oxford University Press, 1912. P. XII-282, with 3 plates and 89 figures. \$1.80.

II. Psychological basis

1. Adler, Alfred -- The Neurotic Constitution, Dodd, Mead & Co. 1917, 1926. \$5.00.
2. Adler, Alfred -- Understanding Human Nature. Greenberg, 1921, 1927. \$3.50.
3. Burnham, W. H. -- The Normal Mind. D. Appleton & Co., 1924. \$2.75.
4. Blanton, Margaret G. & Smiley, B. -- Child Guidance. The Century Co., 1927. 301 p. \$2.25.
5. Blanton, Margaret G. & Smiley, B. -- Speech Training for Children. The Century Co., 1919. 261 p. \$1.50.

Appendix "B"

6. DeLaguna, Grace Andrus -- Speech, Its Function and Development. Yale University Press. \$5.00.
7. Franz, S. I. -- Nervous and Mental Re-education. Macmillan Co., 1923. \$2.75.
8. Freud, S. -- Psychopathology of Every Day Life. Macmillan Co., (English Edition), 1917. \$4.00.
9. Hart, Bernard -- The Psychology of Insanity. Macmillan Co., \$1.00.
10. Janet, Pierre, M. F. -- The Mental State of Hystericals. G. P. Putnam Sons, N. Y. 1901. C. R. Corsan Co., \$3.50.
11. Janet, Pierre, M. F. Major Symptoms of Hysteria. Macmillan Co., 1920. \$2.75.
12. Jung, C. G. -- Psychological Types. Harcourt, Brace & Co., 1923. \$7.50.
13. Moore, T. V. -- Dynamic Psychology. J. P. Lippincott. 444 p. \$3.00.
14. Mott, F. W. -- War Neurosis and Shell Shock. Oxford, 1919. \$4.75.
15. Piaget, Jean -- The Language and Thought of the Child. (translation by Marjorie Warden) Harcourt, Brace & Co., pp. XIII & 246. \$3.75.
16. Pratt, G. K. -- Your Mind and You; Mental Health. Funk and Wagnalls Co., 1924. 70 p. \$0.30.
17. Scripture, M. K. -- Speech Conflict (Scripture and Glogan) J. of Nervous and Mental Disorders XIII, J. Jan. 1916.
18. Steket, Wilhelm -- Conditions of Nervous Anxiety and Their Treatment. Dodd, Mead & Co., 1923. Note Chap. 30 on "Stuttering, Stage-Fright, General view of Phobias." \$7.50
19. Stern, William -- Psychology of Early Childhood. Part II Language. Holt, 1924. \$5.00.
20. Stinchfield, Sara M. -- Psychology of Speech. Expression Co., Boston, 1928. 360 p. \$3.75.
21. Taylor W. S. -- Readings in Abnormal Psychology (Ref. to Speech Defects) D. Appleton Co., 1926 \$4.00. (Spec. Disc.)

Appendix "B"

22. Terman, L. M. -- Hygiene of the School Child. Houghton Mifflin Co., 1914. 417 p. Chapter IX -- Speech Defects and the Hygiene of the Voice. \$2.00.
23. Waddle, C. W. -- Introduction to Child Psychology. Chap. VII on Language. Houghton, Mifflin, 1918. \$2.00
24. Williams, T. A. -- Dreads and Besetting Fears. Little, Brown, & Co., 1923. \$1.75.
25. Bronner, A. F. -- Psychology of Special Abilities and Disabilities. Little, Brown & Co., 1917, \$2.50.
26. Brill, A. A. -- Speech Disturbance in Nervous and Mental Diseases. Quarterly Journal Speech Education, Vol. IX. No. 2, 129, 1923.
27. Conradi, E. -- Psychology and Pathology of Speech Development in the Child. Pedagogical Seminary, Vol. II, 1904. 327-380.
28. Dearborn, W. F. -- Special Disabilities in Learning to Read and Write. Lord, Carmichael, and Dearborn. Harvard Monograph in Educ. Series 1, Vol. 2, No. 1, Jan. 1925.
29. Kenyon, Elmer L. -- Stammering as a Disorder of Speech Dependent on Conditions of Child Development. Volta Review 22: 39-45. January, 1920.
30. Levine, Michael -- Preliminary Report on the Treatment of Stuttering, Stammering, and Lispings in a New York School. Psychological Clinic, 6: 93-106, June 15, 1912, tables, figures.
31. McCready, E. B. -- Defects in the Zone of Language (word-deafness and word-blindness and Their Influence in Education and Behavior. Amer. J. Psychiat. 1926, 1, 267-277.
32. Scripture, M. K. -- Some theories Concerning Stuttering and Stammering. Quarterly Jour. Speech Education, Vol. VIII, No. 2, 141-155, 1922.
33. Stinchfield, Sara M. -- The Importance of Speech as a Personal Problem. American Speech, Vol. II, No. 3, December 1926.
34. Stinchfield, Sara M. -- Expression as an Index to Intelligence. Jour. of Expression, Vol. 1, No. 1, 8-12.
35. Vaughan, W. F. -- Psychology of Compensation. Psychological Review. Vol. 33, No. 6, Nov., 1926.
36. Wagoner, Lovisia C. -- Speech as an Indication of Temperamental Traits. Q. J. of Sp. Educ. Vol. XI, No. 3, 237 p.

Appendix "B"

37. Wallin, John E. Wallace -- Theories of Stuttering. J. of Applied Psychology, 1: 349-67, Dec. 1917.

III. Phonetic basis

1. Avery, Elizabeth; Dorsey, Jane; and Sickels, Vera A. -- First Principles of Speech Training. D. Appleton & Co., 1928. 518 p. \$3.00.
2. Varrows, Sara T. and Cordts, Anna D. -- The Teacher's Book of Phonetics. Ginn & Co., 1926. \$1.40.
3. Dumville, Benjamin -- The Science of Speech. Warwick and York, Inc. \$1.68.
4. Jespersen, Otto -- A. Modern English Grammar on Historical Principles. Part I--Sounds and Spelling. C. Winter, 1909. 485 p. \$3.00
5. Jones, Daniel -- The Pronunciation of English. Cambridge Univ. Press. Phonetics and Phonetic Transcriptions. 2 parts in 1. H. K. Mulvaney Co., 1909. \$1.40.
6. Jones, Daniel -- English Pronouncing Dictionary. New Ed. E. P. Dutton & Co., 1925. \$2.50.
7. Krapp, G. P. -- Pronunciation of Standard English in America. Oxford Univ. Press, 1919, pp. XVI & 235. \$1.50
8. Mosher, J. A. -- The Production of Correct Speech Sounds, The Expression Co. \$2.50.
9. Muckey, Floyd S. -- Introduction to the Science of Phonetics. Quarterly Journ. of Speech Education, Vol. VIII, No. 1. Feb. 1922, p. 61-74.
10. Pray, Sophia A. -- Phonetic Training for Children. Quarterly Journ. of Speech Education. Vol. IX, No. 2, April 1923.
11. Ripman, Walter -- Elements of Phonetics. E. P. Dutton & Co. 1912. p. XII & 148. \$0.80.
12. Ripman, Walter -- Sounds of Spoken English with specimen passages in phonetic transcription: annotated, and with a glossary and index. E. P. Dutton & Co., 1917, p. VII - 232. 1924 revised edition. \$1.45.
13. Ripman, Walter -- Good Speech: An Introduction to English Phonetics. E. P. Dutton & Co. 1924 \$0.90.

Appendix "B"

14. Avery, Elizabeth -- Some Practical Applications of Phonetics in the Teaching of Speech. Q. J. of Sp. Ed. Vol. XII, No. 3, June 1927. p. 291-305.
15. Berry, Mildred Freburg -- Correction of Cleft-palate Speech by Phonetic Instruction. Q. J. of Sp. Ed. Vol. XIV. No. 4, Nov. 1928, p. 532.
16. Maghee, Frances C. -- Rhythmic Phonetic Training for Voice and Speech. Stratford Co., Boston 1922. 151 p. \$2.50.
17. Smith, Joseph Fielding -- The Place of Phonetics in a System of Training in Speech. Thesis, University of Illinois. 1926.

IV. General References on Classification, Causes and Treatment.

1. Appelt, Alfred -- Stammering and its Permanent Cure. A Treatise on Psycho-Analytical Lines. Methuen & Co. Ltd., London, 1911. 7 Shillings net.
2. Birmingham, A. L. and Krapp, G. P. -- First Lessons in Speech Improvement. C. Scribner's Sons, 1922. XXIX, 296 p. illus.
3. Bluemel, C. S. -- Stammering and Cognate Defects of Speech. C. E. Steckert and Co., 1913. 2 Vol. 365 p.; 391 p. \$5.00.
4. Borden, R. C. and Busse, A. C. -- Speech Correction. F. S. Crofts & Co., 1925. \$3.50
5. Bryant, Frank A. -- Definition, Causes and Treatment of Stammering. F. A. Bryant, 1907, 71 p. 12.
6. Bryant, Frank A. -- Some Speech Disorders and Their Treatment. (Hamilton Press), 1913. 64 p. illus. 12.
7. Carswell, E. R. -- The Cause and Cure of Stammering and all Other Speech Defects; a Manual for School and Class Use and for Use in "Correspondence Courses".....the Notable Pon-lin Method Applied to Eight Classes of Faulty Speech.....Regan Printing House, 1922, 182 p.
8. Fletcher, John Madison -- The Problem of Stuttering, A Diagnosis and a Plan of Treatment. Longmans, Green & Co., 1928. \$2.25.
9. Froeschel, Emil -- Lehrbuch der Sprachleilkunde. Leipzig and Wien Franz Deuticke; 1912. Review in Amer. J. Psy. by Frederick Martin, Oct. 1927.

Appendix "B"

10. Greene, J. S. & Wells, Emilie J. -- The Cause and Cure of Speech Disorders. Macmillan Co., 1927. \$4.50
11. Gutzmann, Herman -- Das Stottern. 1910.
12. Head, Henry -- Aphasia and Kindred Disorders of Speech. Vol. I & II. The Macmillan Co., 1926. \$20.00
13. Kussmaul, Adolf -- Ziemssen's Cyc. of Med., XIV, Chap. 1-2, 1877.
14. Liebmann, A. --Vorlesungen uber Sprachtorungen. 1899.
15. McCullough, G. A. & Birmingham, A. V. -- Correcting Speech Defects and Foreign Accent. C. Scribner & Sons, 1925. \$0.88. (no discount)
16. Martin, F. -- Manual for Lispers. Martin Hall \$0.60.
17. Martin, F. and Martin, Louise -- Manual of Speech Training. Martin Inst. for Speech, 1926, 114 p. \$1.50.
18. Osnato, M. -- Aphasia and Associated Speech Problems. P. Hoebner, 1920. \$1.50.
19. Parsons, B. S. -- Left Handedness, A New Interpretation. Macmillan, 1924, p. VII, 21, and 185. \$2.00.
20. Peppard, Helen M. -- Correction of Speech Defects. Macmillan Co., 1925. \$1.40.
21. Potter, S. O. L. -- Speech and Its Defects: Considered Physiologically, Pathologically, Historically, and Remedially. Blakiston, 1882.
22. Robbins, Samuel Dowse -- Stammering and Its Treatment. Boston Stammerers' Institute, 1926. p. 121. \$2.00.
23. Scripture, E. W. -- Stuttering, Lispng and the Correction of the Speech of the Deaf. Macmillan Co., 1912. \$2.25.
24. Stinchfield, Sara M. -- Speech Pathology with Methods in Speech Correction. Expression Co. 240 p. \$3.50.
25. Swift, Walter B. -- Speech Defects in School Children and How to Treat Them. Houghton Mifflin Co., 1918. 128 p. \$1.20.
26. Thorpe, M. E. J. -- Speech Hesitation. E. S. Werner Pub. Co., 1900. (1899) \$1.25.
27. Ward, Ida C. -- Defects of Speech, Their Nature and Their Cure. E. P. Dutton & Co., 1924. \$0.75.

Appendix "B"

28. White, W. A. & Jelliffe, S. E., editors "Modern Treatment of Nervous & Mental Disease. By American & British Authors Vols. I & II. Lea & Febiger, Phila. N. Y. 1913.
29. Bartlett, F. C. -- Critical Notice of Head's Aphasia and Kindred Disorders of Speech. Brit. J. Psychol. (Gen. Sect.) 1926, 17, 154-161.
30. Wyllie, John -- Disorders of Speech. Oliver and Boyd, 1894.
31. Charnley, Constance -- Some Observations on the Conditions and Treatment of Stuttering. In the Health of School Children comp. by W. H. Heck. Washington Gov't. Printing Office, 1915, p. 90-95. (U. S. Bureau of Educ. Bulletin, 1915, No. 4).
32. Clark, L. P. -- Re-educational Treatment for Confirmed Stammerers. Medical Record, 101: 609, 1922.
33. Clark, L. P. -- A Study of the Psychogenesis of Confirmed Stammerers. J. Nerv. and Mental Disorders, 1926, 63, 238-245.
34. Coriat, I. H. -- Stammering as a Psychoneurosis, J. of Abn. Psy. Vol IX, No. 5. 1915.
35. Coriat, I. H. -- Stammering: A. Psychoanalytic Interpretation. Nerv. & Ment. Disorders. Monog. Series, No. 47, 1927.
36. Gault, R. H. -- Extension of the Uses of Touch for the Deaf. School and Society, 1926, 23, 368-370.
37. Gregory, M. S. -- Stammering as a Neurosis. J. Nerv. and Mental Dis., 1925, 62, 371-375.
38. Lima, M. -- Speech Defects in Children. Ment. Hygiene: 1927, Vol. 11, pp. 795-803.
39. McMahon, Cortland -- A Paper on the Curative Treatment of Stammering. School Hygiene (London) 2:315-21, June 1911.
40. Makuen, G. Hudson -- A. Study of 1,000 cases of Stammering with Special Reference to the Etiology and Treatment of the Affection. In The Health of School Children, comp. by W. H. Heck. Washington, Gov't. Printing Office 1915. p. 95-98. (U. S. Bureau of Educ. Bulletin, 1915, No. 4.).
41. Martin, Frederick -- Stammering; Underlying Causes and Method of Correction. Medical Record, 97:914, 1920.
42. Martin, F. -- Prevention and Correction of Speech Defects. English J. 10: 20-7, Jan. 1921.

Appendix "B"

43. Nice, M. M. -- Ambidexterity and Delayed Speech Development. *Bibliog. Pedagogy Sem.* 25: 41-62. *Je.*, 1918.
44. Pacini, J. P. -- Stammering, *Medical Record*, 93: 800, 1918.
45. Pacini, J. P. -- *Pedagogical Seminary*, Vol. 10, 1917 -- Devoted to Speech Problems.
46. Raymond, W. M. -- What the Government is Doing for Soldiers with Speech Defects. *Q. J. of Sp. Educ.* 7:1-5, Feb. 1921.
47. Scripture, E. W. -- The Treatment of Stuttering, *Lancet*, 1923., 204 (2), 749-750.
48. Scripture, May K. -- Treatment of Speech Defects. *Q. J. of Sp. Educ.* 6:1-16, June 1920.
49. Scripture, May K. -- Pathology and Re-education of Speech Disorders. *Q. J. of Sp. Educ.*, April 1926 p. 148, also June 1926.
50. Scripture, May K. and Kittredge, Winifred B. -- An Attempt to Determine Another Etiological Factor of Stuttering Through Objective Measurement. *J. of Educ. Psy.*, 14: 162-73, Mar. 1923.
51. Shaw, Esther E. -- Some Imaginal Factors Influencing Verbal Expression. *Psychological Monograph* 26, 1919, No. 133 of the *Psychological Review*.
52. Stinchfield, Sara M. -- *Speech Pathology with Methods in Speech Correction.* Expression Co. 1928.
53. Stinchfield, Sara M. -- The Formulation and Standardization of a Series of Graded Speech Tests. *Psy. Monograph series* No. 149, 1923.
54. Stivers, C. G. -- Systematic Training in the Treatment of Inco-ordinations, especially of Speech. *Q. J. of Sp. Educ.* 7:52-56, Feb. 1921.
55. Stinchfield, Sara M. -- A Preliminary Study in Corrective Speech. Iowa City, University of Iowa, 1920. 36 p. (*University of Iowa Studies*, No. 39, Dec. 15, 1920. *Studies in Child Welfare*, Vol. 1, No. 3). Selected References: pp. 35-36.
56. Stratton, L. D. -- A Factor in the Etiology of a Sub-breathing Stammerer. *J. Comp. Psy.* 1924, 4, 325-346.
57. Swift, Walter B. -- Can Stuttering be Outgrown? *Q. J. of Sp. Educ.* 5: 368-74, Oct. 1919.

Appendix "B"

58. Tompkins, Ernest -- Supplemental Notes on the Stammering Problem. J. Abnorm. Psychol., 1922-23, XVII, 132-138.
59. -- A Summary of Stammering. West M. Times, Denver. 1923-24, XIII, 39-42.
60. -- Two Different Views of Stammering. 1921. Boston M. & S. J. CLXXXV, 780-785.
61. -- Stammering and Left Handedness. Med. Rec., N. Y. 1921, C. 941-943.
62. -- Stammering As It Is. Med. Rec. 1920. XCVIII, 935-939.
63. -- The Significance of Stammering to the Medical Profession. Med. Rev. of Rev., 1920, XXVI, 641-645. N.Y.
64. -- The Stammering Problem Solved. J. Abnorm. Psychol. Boston, 1919-20, XIV, 349-352.
65. -- Stammering. N. York M. J., 1920. CXI, 900-904.
66. -- Stammering and Modern Medicine. Mod. Med., Chicago, 1919, 1. 448-450.
67. -- Should hypnotism be Used to Correct Stammering? Med. Rec. N. Y., 1919, XCV, 731-733.
68. -- A Definite Solution of the Stammering Problem. Laryngoscope, St. Louis, 1919, XXIX, 409-419.
69. -- Left-handedness and Stammering. Quar. Jour. of Sp. Educ. Menasha, Wis., 1919, V. 6-11.
70. -- Useful Knowledge of Stammering. Am. Med. Burlington, Vt., 1917. M. S. XII, 179.
71. -- The Treatment of Stammering. Boston M. & S. J., 1917, CLXXVI, 651. Also: Med. Rec. N. Y., 1917, XCI, 865.
72. -- The Problem of the Stammerer. N.Y. M.J., 1917, CVI, 241.
73. -- Stammering in Connection with Military Service. Am. J. Pub. Health, N.Y., 1917, 638-640.
74. Wallin, J. E. -- Theories of Stuttering. J. of Applied Psy. Dec. 1917.

Appendix "B"

V. Methods of Procedure.

1. Hunt, E. L. -- Diagnostic Symptoms in Nervous Disease. W. B. Saunders Co., Phila. and London, 1914. 292 p. \$2.00.
2. Scripture, M. K. and Jackson E. -- Manual of Exercises for the Correction of Speech Disorders. F. A. Davis Co., 1919 250 p. \$2.00.
3. West, Robert W. -- Diagnosis of Disorders of Speech. Brown Book Co., Madison, Wis. 1926.
4. Blattner, Helene -- Picture Test for Lisp Diagnosis. Iowa State Univ. Thesis.
5. Makuen, G. Hudson -- Stammering: Suggestions as to Modern Methods. Scientific American Supplement. 69: 86, Feb. 5, 1910.
6. Stinchfield, Sara M. -- Practical Speech Measurements. Q. J. of Speech Educ. Feb., 1923.
7. Stinchfield, Sara M. -- Suggestions for the Study of Individual Speech Cases. Q. J. of Speech Educ., Vol. 10. p. 157-162. 1924.
8. Swift, Walter V. -- What is a "Speech Clinic"? N. E. A. 1916, p. 867-888.
9. University of Wisconsin -- A Case History Outline for Diagnosis of Speech Defects. (Department of Speech) Q. J. of Sp. Educ., Feb. 1926. Vol. 12.
10. West, Robert -- Notes on Apparatus usable in the Study of the Voice. Q. J. of Sp. Educ., Vol. XI, No. 3, p. 243.

VI. Extension of Work in the Schools

1. Blanton, Smiley -- Speech Defects in School Children. Mental Hygiene 5: 820-7, Oct., 1921.
2. Camp, Pauline B. -- Speech Correction in the Grand Rapids Schools. Volta Review, 21: 732-34, Nov. 1919.
3. Camp, Pauline B. -- Speech Treatment in the Schools of Grand Rapids: A Report of Cases, Q. J. Sp. Educ. Vol. 7, p. 120-138, 1921.

Appendix "B"

4. Chapin, A. C. -- Organization of Speech Correction Classes in Los Angeles City Schools, Q. J. of Sp. Educ., 13: 24-29, Feb. 1927.
5. Crahan, Mary G. -- Development of plans for the Correction of Stuttering and Stammering in the Public Schools. In Fourth International Congress on School Hygiene, 1913. Transactions, Vol. 3, 1914. p. 333-40.
6. Fletcher, John M. -- Speech Defects in Children. In National Association for the Study and Education of Exceptional Children. Proceedings, 1911 (Plainfield N. J. Courier-News job print) 1911 p. 148-59; Also in American Journal of Obstetrics and Diseases of Women and Children, 55:176-86, Jan. 1912.
7. Gates, A. I. -- Studies of Phonetic Training in Beginning Reading J. Educ. Psy., 1927, Vol. 18: 217-226.
8. Gifford, Mable F. -- Speech Correction in the San Francisco Public Schools. Q. J. of Sp. Educ., Vol. XI, No. 4, p. 377-81 Nov. 1925.
9. Hiser, Nova Owalla -- A Preliminary Survey of Speech Defects Among Freshmen at the University of Illinois. Thesis, University of Illinois 1926.
10. Kenyon, Elmer L. -- Can Stammering be Treated Successfully Through the Agency of the Public School? Journal of American Medical Association, 54: 1859-61, June 4, 1910.
11. Farma, William J. -- Speech Disorders and the Teaching of Speech. Q. J. Sp. Educ. 12: 156-67; June 1926.
12. Malley, Jeanette I. -- Speech Improvement and the Correction of Speech Defects in the New York Schools, Ungraded, 4: 167-71 April 1919.
13. Osborne, Caroline A. -- Speech Defects in the School Child. Mind and Body, 26: 345-51, Jan. 1920.
14. Root, A. R. -- Shaping the Curriculum in Speech Education Q. J. of Sp. Educ. Feb. 1926.
15. Swift, Walter B. -- The Management of the Speech Defect Problem, in Public Schools. Educational Administration and Supervision, 2: 151-58, March 1916. Read before the American Association for the Advancement of Science, Sec. L. Berkeley, Calif. Aug. 5, 1915.

Appendix "B"

16. Wallin, John E. Wallace -- Report on Speech Defectives in the St. Louis Public Schools; Reprinted from the Annual Report of the Board of Education for the year 1915-1916. St. Louis, Mo. The Author, 1917, p. 173-211.
17. Walsh, Elizabeth A. -- A Study of Speech Defects of Ninety-one un-graded Class Children. Ungraded, 3: 49-62, Dec., 1917.

VII. Experimental Division

1. Luria, A. R. -- Speech and Intellect in the Development of a Child. Experimental Investigations. Moscow, 1928, p. 259.
2. Burger, H. and Kaiser, L. -- Speech Without a Larynx. Acta otolaryngol, 1925, 8, 90-116.
3. Fletcher, J. M. -- Experimental Study of Stuttering. Am. J. of Psychology. April 1914, Vol. 25; p. 201-255 Contains a Bibliography of 125 References.
4. Metfessel, M. F. -- Study of Pitch Variations in Speech. Iowa State University. Thesis.
5. Scripture, E. W. -- The Speech Clinic. Lancet, 1924, 206 (1) 677.
6. Scripture, M. K. & Kittredge, Winifred B. -- An attempt to Determine Another Etiological factor of Stuttering Through Objective Measurement: Journal of Ed. Psy. 14: 153, Mar., 1923.
7. Stinchfield, Sara M. -- The Speech of Five Hundred Freshmen College Women. J. Appl. Psy., 1925, 9, 109-121.
8. Swift, Walter V. -- Observations on the Voice in Tabes-- A Voice Sign. Preliminary Report, with case. Reprint from Proceedings of the American Medico-psychological Association, Seventy-first Annual Meeting. Old Point Comfort, Va., May 11-14, 1915.
9. Travis, Lee Edward -- Muscular Fixation of the Stutterer's Voice under Emotion. Science. 1925, 62, 207-208.

Appendix "B"

10. Travis, Lee Edward -- A phono-Photographic Study of the Stutterer's Voice and Speech. Psy. Monograph, 1926, Vol. XXXVI, No. 9, 109-141.
11. Travis, L. E. and Davis, Mildred G. -- The Relation Between Faulty Speech and Lack of Certain Musical Talents. Psy. Monographs, Vol. XXXVI, No. X, 71-81.
12. Weaver, Andrew T. -- Experimental Studies in Vocal Expression. J. Ap. Psy. 8:23-51, 159-86. Mar.-June 1924.
13. Young, H. H. -- A Speech Clinic Case With Misconduct as a By-Product. J. Appl. Psy., 1925, Vol. 9, 371-381.