PUBLIC SCHOOL PENMANSHIP

A HANDBOOK FOR TEACHERS

BY

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GINN AND COMPANY

BOSTON · NEW YORK · CHICAGO · LONDON

The Athenæum Press
GINN AND COMPANY · PROPRIETORS · BOSTON · U.S.A.

PREFACE

It is probable that most teachers understand less about the fundamental principles of chirography than they do about any other study in the grade curriculum. Because of this lack of knowledge the majority of the public school profession realize their inability to teach writing properly. They will correctly give it as the most important reason why the class-room penmanship is no better.

This book has a triple purpose: first, to unfold enough of the theory of penmanship to educate any one in that part of the subject; secondly, to suggest what to teach in penmanship; and thirdly, to explain how penmanship should be taught in public schools. Were it not for the explanation of the theory the book would be of small assistance. It is of little use to repeat what should be done to teach writing unless at the same time the teacher acquires a better preparation for her work. To this end, therefore, the instruction here given is definite, progressive, and constructive.

The last part of the book contains a suggestive course of study in public school penmanship. As stated in that chapter, for various reasons no arbitrary plan can be followed with the greatest success. The directions there given will, in many cases, serve as a basal outline for the teaching indicated, while

in other instances they should be conformed to very closely. It is in keenly perceiving when to give certain instruction that the teacher will prove her ability to judge the present status of the pupil's work. This work must show constant improvement. Actual attainment, therefore, is the sole foundation on which to build the next more advanced practice.

Finally, what is here set forth will prove of no value unless the teacher reads it carefully, and intelligently makes its statements a part of her instruction to the pupils. If she does this, her individuality in teaching will be ideally demonstrated. Too much should not be attempted at any time. It is better to read a little and assimilate it. Teach that, and develop such a process gradually. If this is done, the teacher can stand before her class with that confidence which is born of definite knowledge. Such assurance, coupled with enthusiasm, that indispensable factor in teaching, will cause successful results to be the outcome of every writing lesson.

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PUBLIC SCHOOL PENMANSHIP

CHAPTER I

PREPARATION FOR WRITING

Position of the Body while Writing

There are three important reasons why the pupil should maintain a good body position when sitting at the desk to write:

1. *To preserve good eyesight.* No pupil can continually keep his eyes close to the paper without tending to become nearsighted.

2. *To preserve good health.* No pupil can constantly sit bent over the edge of the desk, with his chest hollowed in, and at the same time breathe freely and deeply. Such a posture would be detrimental to good health.

3. *To secure convenience in writing.* No pupil can sit in a cramped or stooped position and find it conducive to ease and convenience during protracted periods of written work. When the teacher asks her pupils to sit properly at their desks, they think she wishes the general appearance of the room to be thereby improved. Such a thought does not always inspire the stimulus necessary to accomplish the desired end.

These very important suggestions are offered for the assistance of the teacher in this particular work:

1. *Talk with the pupils and explain the benefits accruing from a good body position.*

When developing this or any new line of study, the teacher should try to help them to see the end from the beginning, and just how such instruction and training will affect them individually. Taking the pupils into the teacher's confidence will first, oftentimes, cause them to think; secondly, it will furnish them an incentive to work; and thirdly, it will frequently give them more courage in the difficult task of application.

2. *See that the pupils maintain a hygienic body position during all desk work.*

To make sure of a good body posture during the writing lesson the teacher should insist upon a hygienic position of the pupil during all the other hours of the school day. Remarkable as it is, an unhygienic attitude is infrequently noticed until the writing period occurs. Then the teacher will say to the class: "Why, children, what would the superintendent say if he should come in now? He would think that you were writing with your noses. *Do* sit up." The reference to this much-beloved school official, as well as the pleading tone of the voice, have their effect in straightening up the pupils for a while; then they lapse and bend over their desks as if they had been afflicted with chronic rheumatism from birth. On the other hand, if pupils maintain the hygienic position in which they should sit during their regular seat work, the result will be a wonderful improvement of the body posture during the writing hour.

3. *Give frequent periods of respite.*

As a means of obtaining a better body position nothing is of greater value than frequent periods of rest between recitations. A change of air in the room and a few exercises

in physical culture will not consume more than sixty seconds. The air, exercise, and change of thought will so revive the pupils as to cause the teacher to feel that she has a different class in the room.

The correct or hygienic position of the body

The hygienic position of the body while writing calls for four things:

FIG. 1

1. *Sitting near the desk.* The pupil should face the desk and be near it without leaning against it. In deciding how near it to sit, have him turn his right hand so that the back of it forms a right angle with the top surface of the desk. In this position he should be able to move his hand up and down between the front edge of the desk and his clothing without touching either.

2. *Placing the feet squarely on the floor.* Both feet should be placed squarely on the floor under the desk. The child

should not be required to sit with his heels together in military precision. This restrains and irritates him. If he keeps his feet flat on the floor under the desk, he should be allowed to change their position. Such a change is restful, especially to one who is inclined to be nervous.

3. *Sitting erect.* The pupil should sit upright, with his shoulders thrown well back. If it is necessary for him to incline forward because of nonadjustable school furniture or for other reasons, he should bend the body at the hips so that he may properly focus his eyes on the writing. A good rule, the statement of which sometimes amuses the children, is to sit so that the end of the nose is two penholders' length from the paper. Unless it is noticed that there are unusually short noses in the class or that too many luncheons have been taken from the tops of the penholders, this rule should be strictly followed.

4. *Arm rest.* Both forearms should rest lightly on the desk. To assist the pupil in doing this properly, instruct him as follows:

a. Ask him to drop his arms at his sides. His hands will naturally half close, as is the case when one is standing.

b. The hands thus partially closed, instruct him to place his elbows on top of the desk. The right elbow should be near the lower right-hand corner of the desk, and the left elbow should be near the lower left-hand corner. The hands should point upwards with their *backs* toward the pupil.

c. Ask him to drop his forearms to the desk, allowing the hands to rest near each other.

If he has followed the directions correctly, it will be noticed first that the muscle of each forearm is properly placed for the arm rest. Note particularly that the right

forearm muscle is now resting upon a flat surface and not oscillating over the edge of the desk. Secondly, it will be seen that the right hand is placed in a convenient position to receive the pen, while the left hand is placed in a favorable position to keep the paper from moving.

How to steady the paper

The paper should be held in position with the tips of the fingers of the left hand. Pupils frequently place the whole of this hand upon the paper, — a habit that should be corrected. The oil in the perspiration will easily be transferred to the paper, and, when the pupil tries to write over the place where his hand has rested, the paper will not absorb the ink, which cannot penetrate this oil. It is because of this fact that a boy will often say, "My pen ain't no good." In many cases the difficulty is not with the pen but with the paper, as above explained.

Position of the paper while writing

The position of the paper while writing will be considered in greater detail later on, in connection with other matters. For this reason all that it is necessary to say here can be stated in a few words.

If a script slanting 25° to the right of vertical is desired, turn the paper so that its top edge will tilt toward the left until its bottom edge forms an angle of 25° with the front edge of the desk, or an imaginary line running parallel to it. How this exact position may be taught and acquired, whether for the purpose of reproducing a script of this slant or simply for the purpose of approximating it as a standard, will be explained, beginning on page 25 of this book.

Penholding

There is no part of the work which the teacher of penmanship dreads more than teaching penholding. This is so particularly in the middle and upper grades, unless the pupil has acquired a good manner of holding the pen in the classes below. In any grade above the first the dread of teaching this subject is probably due to a mistake of the child's first teacher. Such an error may bring long-continued misfortune to a child as well as to his future teachers, and may cause them to believe that it is impossible for public school children to learn how to hold the pen correctly.

In order to ascertain how the mistake may be made, the essentials of a first writing lesson, such as in some instances is given to a young pupil, may be interesting to review.

Teacher. (Item No. 1) "Johnny, you are going to write. You will sit *just so*" (properly placing him before his desk). (Item No. 2) "Johnny, you are to keep your paper on the desk *just so*" (properly placing the paper). (Item No. 3) "Johnny, you are to hold your pencil *just so*. Won't that be splendid?" (properly placing the pencil in Johnny's hand). Thus far the little fellow has been taught (?) three things: the first of these, the body position, involves four details, and the last, penholding, includes seven details about which to be careful. All of this important instruction has probably been given within five minutes. The teacher then turns to the board and makes and teaches either small *i* or some short word, which comprises the fourth item of instruction. Which one of the four things taught will engage the special interest of the child? *Writing his copy.* Where was the mistake? In teaching too much for the first lesson, and particularly in

asking him to write, without first taking sufficient time to help him fix in his mind the details of the *writing process.* Many a teacher has said: "The boy writes, if he does not hold his pen correctly. Results are what we want. Why, then, is it necessary to teach him the correct position of the hand?" The fallacy of such reasoning may be aptly illustrated by the following incident from the author's life. When a boy in school he was given an example to perform. He did his work, looked in the back of the arithmetic, and found he had the correct answer to the problem. He remembers well how proudly he walked to the teacher's desk, expecting some word of approval. To his utter dismay, the problem was pronounced *wrong.* By some juggling of figures he had attained the right answer, but the work was wrong because the *process* was wrong. Every teacher who is reading this book has had similar experiences in the class room. In connection with the above incident no one would argue, as in the matter of penholding: "The boy got his correct answer. *Results* are what we want. Why teach him a different process?" When one considers the education of the child such reasoning is absurd in either case.

Good penholding *can* be acquired by public school children, and become so much of a habit that they will hold both pen and pencil in the same position for all written work.

Correct penholding

The pen should be held between the first and second fingers and the thumb.

1. It should cross the second finger at the corner of the nail.

2. It should cross the first finger close to the middle joint.

3. The thumb should bend outward at its first joint, and the end of it should touch the penholder opposite the first joint of the first finger.

4. The forearm should rest lightly on its muscle, as has been shown in describing the body position on page 4.

FIG. 2

5. The wrist should be raised slightly above the desk.

6. The hand should rest on the tips of the third and fourth finger nails.

7. The top of the penholder should point in a line up the forearm and over the elbow, or between the elbow and the shoulder.

Fig. 2 illustrates the details of correct penholding as seen from the right side of the hand. The following points should be noticed: the natural curvature of the first two fingers, where the penholder rests at the corner of the second finger nail, where the penholder crosses the first finger, where the second and third fingers separate,

Fig. 3

the third and fourth finger-nail hand rest, the elevated wrist, and the fact that the top of the wrist is nearly level. It should also be noticed that the muscle of the forearm rests on the desk and that the elbow is near the front edge of the desk.

An explanation must be made. To bring out clearly the details just mentioned it was necessary to point the camera at right angles

to the right side of the hand. In so doing it makes the top of the boy's penholder point to his chin. The teacher, however, must not be misled in this particular, for this penholder actually pointed the same for this picture as is shown in Fig. 1, page 3, and as is also shown in the cut next following. The direction in which the penholder should point properly could not be correctly delineated and the other details emphasized in the same picture.

Fig. 3 illustrates the top and the left side of the hand and wrist as the writer looks down upon them. In studying this picture it should be noticed that the boy sat near to the desk, but his clothing did not touch it; that the right forearm is at right angles to the writing lines; that the forearm is resting on the muscle near the elbow; that the pencil crosses the first finger between the knuckle and the middle joint; that the first finger, from the middle joint to the end, rests on the pencil (which precludes the possibility of a conical position of the first finger); that the thumb bends outward at its first joint, while the end of the thumb touches the pencil opposite and a little under the first joint of the first finger; that the top of the pencil points to the arm a little above the elbow, and that the top of the wrist is nearly level.

The angle of the paper should also be noticed. This paper is placed properly for writing a script which slants 25° to the right of vertical.

The tips of the fingers of the left hand should properly hold this paper in position on the desk.

How to teach correct penholding

To teach correct penholding successfully two things should be done:

1. In the pupil's study the seven details noted above should be developed one at a time.

2. Some exercise should be used to assist in this detailed development of study.

NOTE. It is suggested that the seven details of correct penholding be taught in the order of their importance, and the following instruction is given from that point of view.

The upright position of the hand. The position of the hand is determined by the direction in which the top of the penholder points. Explain to the child that the desired direction is represented by an imaginary line which would extend up the forearm and over the elbow, or between the elbow and the shoulder. To teach this detail it is sometimes well to let the pupil hold a twelve-inch ruler in his hand as he would a pen. Such a ruler is commonly supplied for drawing; it is thin and narrow, and the thin edge can be easily held between the thumb and fingers. Because of the extra length of the ruler, the pupil can get a much better idea of exactly how the top of the penholder should point, than he would from beginning his practice by holding either penholder or pencil.

a. When this explanation is understood and the child holds the penholder or pencil accordingly, ask him to lift his forearm on his elbow in the direction in which the penholder points, until the top of the penholder is vertically over the elbow or between the elbow and the shoulder. Then ask him to drop his hand again to the desk. Have him continue this practice briskly for ten or fifteen seconds.

b. Place the pupil's hand in the proper upright position at the left edge of the paper and ask him to move it halfway across the page. Assuming that the hand is still in the correct upright position, ask him to practice lifting his arm on his elbow as above described.

c. Ask the pupil to write a part or the whole of a line on his paper. During this exercise teach him to study the upright position of his hand rather than the letters which he is making.

d. When the line is written ask him to hold his hand still in the exact position it was in when it reached the right-hand side of the paper. Ask him to lift his arm on the elbow in

whatever direction the penholder may then point. In this way he can learn whether his hand has rolled over on its side while he was writing.

Fig. 4 represents the exercise of lifting and lowering the hand in the direction indicated by the top of the penholder. The right forearm is placed properly for writing, as explained in paragraph 4,

FIG. 4

page 4. The hand is then lifted through the middle position to the highest position shown in the illustration, and the forearm rests on the elbow at the front edge of the desk. If a vertical line should be drawn downward from the top of the penholder in the hand highest from the desk, this line would touch the right arm just above the elbow. This is the place to which the top of the penholder or pencil should always point during the exercise of lifting and lowering the hand. The exercise should be practiced briskly.

e. Continue such practice until it is natural for the pupil not only to *move* his right hand in the upright position across the paper, but to *write* in the same manner. This drill results in training him in this detail of correct penholding so that it becomes a habit for him to hold his hand upright whenever he takes his pen or pencil to write.

The third and fourth finger-nail rest. Next in order of importance teach the third and fourth finger-nail rest for the hand. Use the following exercise.

a. Have the pupil place his right hand flat on the desk. See Fig. 8, page 17.

b. Ask him to half close this hand so that the tips of all four finger nails touch the desk. See Fig. 9, page 17.

c. Have him extend the first two fingers and the thumb as they would be extended when holding the pen. This leaves the third and fourth finger nails touching the desk in position for the desired hand rest. See Fig. 10, page 18.

Repeat these exercises until the pupil fully understands where the hand rest is and can use it whenever he writes.

Elevation of the wrist. Next the elevated wrist should be taught. If this matter has not been emphasized and the pupil is asked to lift his wrist while writing, he will almost always take his elbow off the desk in order to do so. Show him, by using the following exercise, that there is no need of removing his elbow.

a. Ask him to hold his hand in the upright position, resting it on the finger nails as above described.

b. If the wrist touches the desk, he should practice raising and dropping the wrist, all the time keeping the muscle rest of the arm in its proper place on the desk. When the pupil finds that he can lift the wrist without taking his whole arm

from the desk, it will be an easy matter for him to apply this detail of correct penholding.

In Fig. 5 the correct position is shown by the solid hand. If the pupil incorrectly lowers his wrist or the under part of the hand to the desk, as represented by the shadow, he should practice lifting and dropping the wrist, as indicated by the bottom of it in the solid hand and the top of it in the shadow. This will train him to keep his wrist above the paper while writing, as well as to keep it flexible.

Fig. 5

The crossing point of the penholder on the first finger. The proper crossing point of the penholder on the first finger should now be taught. Ask the pupil to place the first finger of his left hand on the first finger of his right hand, back of the penholder and in front of the knuckle. Thus the pupil will assure himself that the penholder crosses his first finger where it should. See Fig. 6.

How the penholder is held against the second finger nail. The pen must not be held against the *end* of the finger. To illustrate how the penholder is kept in position against

the corner of the second finger nail, ask the pupil to hold his pen correctly between the first and second fingers and the thumb. Then ask him to raise his first finger from the penholder. As he does so, he realizes that it is a slight pressure of the thumb on the opposite side of the penholder which

Fig. 6

keeps it in position against the corner of the second finger nail. This exercise is intended to offset the usual unnecessary grip of the first and second fingers and the thumb (see Fig. 7).

How to correct a conical position of the first finger. To correct such an error, show the pupil that the first finger, from its middle joint to the end, should rest on the penholder. Drill on this point. If it be necessary, place for a short time a small elastic band around both penholder and first finger, between the first and the middle joint.

How to correct an undue curvature of the first two fingers and thumb. To correct this error be certain that the pen

point is at least three quarters of an inch below the end of the second finger. If there should be less space between these points, the pupil would naturally curve his fingers to keep them from dragging on the paper. To avoid such a necessity he should push his penholder farther down and at the same time curve his fingers as is illustrated in Fig. 2, page 8.

FIG. 7

Both pencil and pen must be held in the same manner. In developing the different parts of correct penholding, as previously explained, it is well, in grades where both are used, to alternate in practice, first using the pencil and then the pen. This interchangeable drill will train pupils to hold each correctly.

Summary of correct penholding

In order to sum up the instruction on correct penholding, it is suggested that the teacher use the following scheme:

FIG. 8

1. *Place your right hand flat on the desk.*

RESULTS ACCOMPLISHED

a. The back of the hand will now face the ceiling, laying the foundation for the desired upright position.

b. If the hand is flat, the wrist is certain to be slightly raised. It is *impossible* to have the hand flat and the wrist touch the desk at the same time. Thus is laid the foundation for a raised wrist while writing.

FIG. 9

2. *Half close your hand so that the tips of all four finger nails shall touch the desk, and at the same time raise the wrist slightly.*

Results Accomplished

a. The back of the hand still faces the ceiling, assuring an upright position of the hand.

b. The wrist is raised.

c. The third and fourth finger nails are in the correct position to form a hand rest.

Fig. 10

3. *Extend your first and second fingers and the thumb, thus placing them in position to receive either pen or pencil.*

Results Accomplished

a. The hand is in an upright position.

b. The wrist is elevated.

c. The third and fourth finger nails are in the correct position to form a hand rest.

d. The first two fingers and thumb are in position to receive the pen.

4. *Take your pen or pencil.*

How to teach pen-and-ink work

The average teacher hesitates to attempt pen-and-ink work because she fears the usual baptism of ink for the pupil. Both the fear and the immersion are unnecessary if the following directions are carried out:

1. Sketch a pen on the board and call attention to the hole in it. For young pupils it may be well to name this the "window" of the pen. Ask them to hold it up and look through it.

2. In the picture of a pen on the board, draw a horizontal line across the bottom of the "window" and tell the children they are to dip the pen point into the liquid only to the depth that is represented by this line.

3. Let the pupils practice this last suggestion. Go around the room with a small bottle of clear water, asking each child to dip his pen into it several times, as far as the bottom of its "window."

4. After each dip give him time to look at his pen to assure himself that he has not put it down too far into the water.

5. Having learned in this way how to dip his pen, the pupil should next dip it in his ink-well and write. It may, however, require several lessons on the work above outlined before the teacher considers it safe to let the young pupil use ink.

6. Before this lesson is given, each pupil must be supplied with a penwiper, and he should wipe his pen after each inspection called for in paragraph 4. The proper care of the pen should be taught at the same time instruction is given in the use of ink.

NOTE. A penwiper should never be made of the inside of an old kid glove. The glove has absorbed perspiration, which contains oil. When the pen is wiped this oil is transferred to it and prevents the ink from staying on the point in a whole drop. It also prevents the ink from flowing freely from the pen (during the writing). For a similar reason a piece of chamois skin should not be used. Neither cotton nor woolen cloth is suitable, because the fibers of these cloths often get caught between the points of the pen and trail the ink along in a broad line. The very best penwiper is a piece of soft tissue paper or a moistened sponge, but these are not practical for general use in the schoolroom. The next best is a piece of clean silk, and from this penwipers should be made. The pen should never be put between the lips.

NOTE. The question may be asked as to the proper time to teach pen-and-ink work. In some places it is taught during the first year, but the author prefers the latter part of the second year.

How to use the blotter

The use of the blotter is an exceedingly simple matter and can easily be taught. The teacher should insist upon the pupil's using it correctly. If a freshly written line needs to be dried, instruct the child to place the left-hand side of his blotter on the paper he is using, parallel to that side of it, at the same time allowing the entire blotter to rest lightly over the moisture. While holding the left side of the blotter firmly, he should brush the right hand across it with a steady, gentle pressure. This will absorb the ink and the blotter will not move.

A common mistake in using the blotter is to take it in one hand and with a series of quick slaps upon the paper attempt to absorb the excess of ink, which will almost always blur the ink lines.

CHAPTER II

THE STUDY OF THE SCRIPT

To teach the letter forms and their slant is often difficult for the teacher. In order to answer the question, "How shall I teach slant?" it will be necessary to explain some of the construction of script.

During the *process* of writing any style of script its down lines will coincide with the writer's line of vision; that is, the direction in which he is looking.

In Fig. 11 the rectangle represents the top of a desk or table on which three pieces of paper are lying, each in a different position. The one marked *A* is so placed that the bottom of it is parallel to the front edge of the desk. It should be in this position for the writing of vertical script. The paper marked *B* is turned so that its top edge is tilted toward the left. Such a position of the paper is used by the right-handed person who writes slant script. The paper marked *C* is turned so that its top is tilted toward the right. This is the common position of the paper for a left-handed person, who usually writes backhand script. Each of the small circles represents a writer, who sits exactly facing the desk. In each instance the vertical dotted line represents the writer's line of vision, that is, the direction in which he is looking.

On each paper a small *f* is written, and in every case the back or downstroke of the letter coincides with the writer's line of vision. It is evident that three styles of writing are represented in the illustration: paper *A*, the vertical; paper *B*,

slant to the right of vertical; and paper *C*, backhand script. In each case the position of the writer at the desk and the direction in which he is looking are the same. The three kinds of writing therefore depend (1) upon the position of the paper, and (2) upon making the downstrokes of the letters coincide with the line of vision. This last suggestion is necessary because it is essential *to establish the proper relation between the eyes and the downstrokes of the script.* As previously explained, the writer should (1) face his desk, (2) sit erect, and (3) look directly ahead of him. In so doing he will look straight up the downstrokes of his writing. A pupil sometimes cants his head to one side, and when asked why he does so, replies, "I can see better." The real reason lies in the fact that he has tilted his paper so far that he cannot see straight *up* the *downstrokes* of the letters. Instead of canting his head to one side, he should tilt his paper less.

Help to the teacher

If the teacher thoroughly understands Fig. 11 and its explanation, its application in three ways will be very helpful. First, it will assist her to place the book in the correct writing position on the desk; second, it will assist her to place the paper in the correct writing position; and third, it will assist in obtaining the exact slant of the script which she is teaching.

To make the applications, follow these directions very carefully.

Obtaining the line of vision

1. Ask the pupil to sit facing his desk.

2. Give him an ordinary twelve-inch ruler. Ask him to place it on the desk so that the end of it is even with the

Fig. 11 represents the different positions of the paper for *writing* as well as for *reading* written work. The paper marked *A* illustrates the position of the paper for writing and reading *vertical* script. The paper marked *B* (dotted-line rectangle) shows the position for writing *slant* script. When this paper is moved in the direction of the arrow until its four corners agree with those of the paper marked *D*, it is in the position for *reading* script. The downstroke of *f*, which coincided with the line of vision during the *process of writing*, becomes slant script when the same paper is held squarely before one

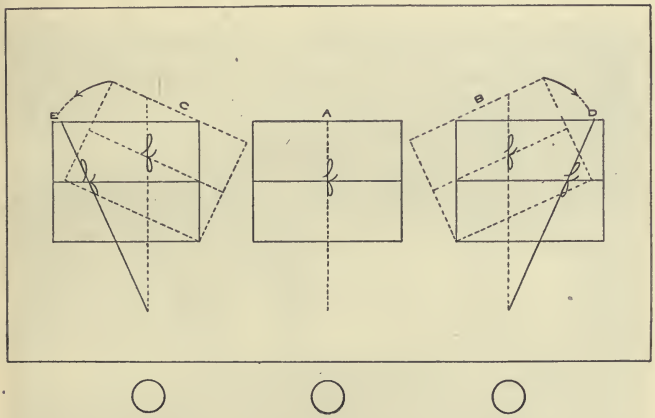


FIG. 11

to *read* writing. In a similar manner the paper marked *C* (dotted-line rectangle) shows the position for writing *backhand* script. When this paper is moved in the direction of the arrow until its four corners agree with those of the paper marked *E*, it is then in the position for *reading* script. The downstroke of the *f*, which coincided with the line of vision during the *process of writing*, becomes *backhand* script when the same paper is held squarely before one to *read* writing. Backhand writing is scientifically correct for the left-handed person, for, when compared with the right-handed person, he uses the opposite process for writing, and therefore he gets the opposite product.

front edge of the desk. When he has done so, explain to him that the ruler thus placed represents his line of vision, that is, the direction in which he is looking.

Application of the line of vision to get the correct position of the *book*

Put the writing book on the desk and place the ruler as described in paragraph 2, page 22, resting it on the open page

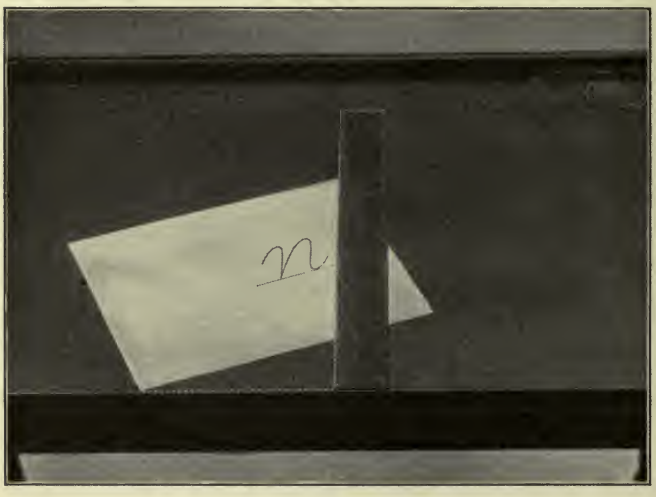


FIG. 12

of the book. Tilt the top of the book toward the left until the downstrokes of the letters in the printed copy are parallel to the long edge of the ruler. The pupil, facing his desk, can now look *up* the downstrokes of these printed letters; they coincide with his line of vision. This proves that the book is in the correct position for writing. See Fig. 13.

Application of the line of vision to get the correct position of the *paper*

1. Repeat the instruction given in the preceding paragraph.

2. Place a sheet of paper on the page of the open book so that its bottom edge will be even with the bottom edge of the book. Let the top of the paper overlap the top of the book.

In Fig. 13 it should be noticed that the teacher is standing at the back of the desk, facing the pupil; that the bottom of the rule

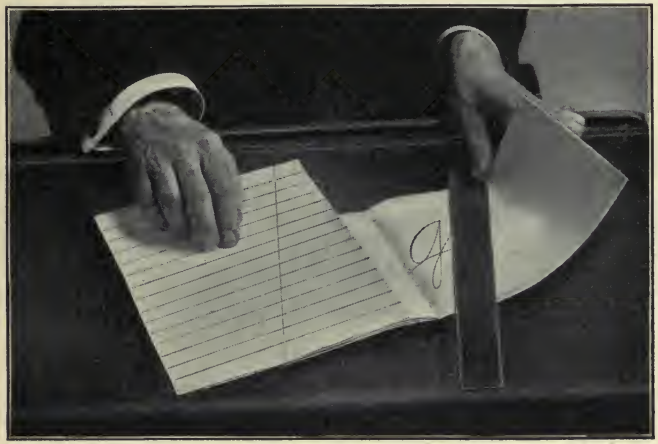


FIG. 13

is parallel to the front edge of the desk; that the rule represents the line of vision; that the downstroke of *g* is parallel to the rule, hence the book is in the correct position for writing; that the bottom of the paper is parallel to the bottom of the book; that the teacher is preparing to remove the rule and book with his left hand while the tips of the fingers of the right hand are holding the paper where it overlaps the top of the writing book. This will leave the paper lying on the desk in the correct position. The long line on the paper which is parallel to the ruler represents the slant of the script.

3. Hold the paper firmly where it overlaps the book.

4. Remove the book. It will be seen that the paper is left lying on the desk in the same position which the book occupied. Read about the "Angle to keep the paper in proper position," described on page 31.

NOTE. The pupil should repeat this process until he can visualize the top of his desk with the paper lying on it in the correct position.

Application of the line of vision to the slant of script

With the book placed in the position described above, ask the pupil to make all the downstrokes of his writing so that he can look *up* these particular lines. The result will be that when he turns the book from the tilted *writing* position to one in which the bottom of the book is parallel to the front edge of his desk (the reading position), he will find that the downstrokes of his script, which coincided with his line of vision when he wrote them, have now become lines slanting to the right of vertical. In other words, he has been writing slant.

How to record the line of vision

If a line representing the slant of the script is desired on the practice paper, while it is in the position called for in paragraph 4, place the ruler in the position described in paragraph 2, page 22. When this is done, draw one line and remove the ruler. Turn the paper squarely before the pupil and this line will coincide with the slant of his script.

It is easy to understand how this axis line will assist the pupil to keep his paper correctly placed for writing. At all times it should be in such a position that, as he looks straight ahead, he will look along the entire length of this line.

For a first-grade and second-grade pupil it is well to make an arrowhead on the end of this line farthest from the child. Tell him always to keep the arrow pointing so that it would shoot straight from the front of his body.

How to help the pupil establish the axis line in his mind

Having led the pupil to *develop* this line, the teacher's effort should next be directed toward helping him to fix it in his mind by *vizualizing* it. This can be accomplished (1) by repeating for several lessons the instruction which deals with the line of vision; (2) by a study of *parallelism*, a process which will now be explained.

How to draw parallel lines which represent the slant of a particular script

When the pupil has one *axis* line on his paper, as described above in the first paragraph under "How to record the line of vision," ask him to draw a series of lines parallel to this one, following these instructions:

1. When he has drawn the axis line against the *left* edge of his ruler, have him draw one beside the right edge of the ruler.

2. Ask him to slide his ruler to the right until the last line he drew is against the left side of his ruler. Then have him draw a line against the right side of the ruler.

3. Continue this operation until he has a series of parallel lines drawn the entire length of the paper, slanting as does the script he wishes to write, the space between any two lines being equal to the width of the ruler. Seeing the paper thus ruled is of inestimable assistance to the pupil in fixing the direction of this line in his mind.

A study of parallelism

Having established this line in the pupil's mind, the teacher should conduct a study of parallelism between it and the downstrokes of the letters. She will find this plan a good one:

1. Have the pupil rule one side of a sheet of paper with parallel lines, as above described.

2. Ask him to make a small *f* between any two of the ruled axis lines, near the top of the paper. When he writes this letter be sure that he makes the *downstroke* of it *parallel* to the axis lines. Let him continue making *f*'s in this fashion until he has fixed this parallelism in his mind and can make letters accordingly.

A test for the accuracy of parallelism

As a test for the accuracy of parallelism, use the following suggestions:

1. After the pupil has written several *f*'s, as above instructed, ask him to turn his paper over to the clean side.

2. Instruct him to hold it between his eyes and the place where the strongest light enters the room. As he looks through the clean side to the opposite side of the paper he can see plainly whether the downstrokes of these *f*'s are parallel to the lines which he ruled.

NOTE. It is necessary to rule these long lines and carry forward the study of parallelism above described, because the downstrokes in the letters printed at the top of the copy-book page are far too short for the pupil to determine their slant. On his practice paper, when he makes the downstroke of a letter parallel to the long axis line previously drawn, the effect of the long line is to lengthen that of his copy and thus assist him to see the slant of his script.

The axis-line parallelism applied to written work

1. Ask the pupil to turn his paper over to the clean side, placing it in the proper writing position, but *not* to draw any axis lines.

2. He may, however, place the ruler as described in paragraph 2, page 22, for the purpose of determining his line of vision.

3. Have him place the first finger of his right hand against the right side of the ruler at its top.

4. Ask him to move his finger downward beside this edge of the ruler. This shows him the *direction* of movement which would produce the axis line should he draw it.

5. Let him discard the ruler, but continue to have him move his finger down the paper just as he did when moving it beside the ruler.

6. Show him that this direction of motion means the direction of line in every downstroke of any letter he writes.

7. Ask him to make some small *f*'s, depending entirely on his visualization of this axis line and the direction of motion required to make it.

8. In a similar manner have the pupil write the long letters which have the loops above and below the writing line. Follow this by having him write shorter letters, as well as words. All such work of application should be carried forward in the manner above described. First should come the study of parallelism with the ruled axis lines, and immediately following such practice the pupil should write the same letter on the opposite side of the paper *without* ruling axis lines. This aids in changing vertical to slant writing.

How to teach the axis line and its application in first and second grades

A modification of the foregoing instructions should be made in order to adapt them to first-grade and second-grade pupils. Since these young children are often unable to use the ruler in drawing the lines, — work which the older pupils can do well, — the axis line must be taught in a very elementary manner.

1. Give each pupil a piece of unruled manila paper. On this the teacher should draw one axis line the entire length of the paper. This might be drawn free-hand, but it would be much better to use a ruler.

2. Have the pupil invert his pencil and move it up and down *beside* the entire length of the teacher's line. Such a movement will train his eye to recognize the direction of this line, and will train his hand to draw the line properly.

3. Ask the pupil to turn his pencil so that the point touches the paper, and draw one line free-hand, thus paralleling the teacher's for its entire length.

4. The pupil should continue to make such lines, at spaces of perhaps one inch apart, until his paper is filled. Repeat this lesson until the children have obtained a good idea of the direction of such a line and can make it either by paralleling that which the teacher drew or from their thought of it.

5. Following this, use single-line ruled paper having at least an inch of space between any two writing lines. Help the pupil to make axis lines in this space, using one third of its height for a unit letter and two thirds of it for a capital. The upper third is for any letter extending downward from the upper writing line.

6. As soon as such lines can be made well, assist the pupils to convert them into the downstrokes of letters or short words. Thus will they make application of the axis line and properly slant their script.

Place a sheet of paper ruled with axis lines under the paper on which the pupil writes, to assist him in acquiring slant

In acquiring slant the pupil will sometimes find it helpful to rule in ink a sheet of paper full of axis lines, according to the directions given in paragraphs 1, 2, and 3, on page 27. Ink will insure a much sharper line than a pencil. If a paper thus ruled be placed under the one on which the pupil writes, these ink lines will be seen through it distinctly and he will constantly see before him the proper slant, parallel to which he is to make the downstrokes of his letters.

Let such a scheme assist him to attain slant in his writing, but do not allow it to be used so long that he will depend upon it.

Angle to keep paper in proper position

As an aid in keeping the paper properly placed upon the desk while writing, cut an angle from a piece of stiff drawing paper. This should be made to correspond with the slant of the script which the pupil is studying. Cutting this angle is a very simple matter.

1. Take a page from a discarded copy of the writing book in present use.

2. Place the ruler to represent the line of vision, as described in paragraph 2, page 22.

3. Place the page from the writing book under the ruler and tilt the top of it toward the left, using care about two

things: First, be sure to have the lower left-hand corner of the page touch the front edge of the desk; second, tilt the top of the page to the left until the down lines of the letters are parallel to the side of the ruler. The angle thus formed by the bottom of this page and the front edge of the desk will be the exact pattern desired. See angle formed by the bottom of the paper and the white dotted line in Fig. 12.

4. Cut as many angles from this pattern as may be needed to supply certain pupils. It may not be necessary for every pupil to have one.

5. Paste this angle on the desk top so that the bottom edge will be parallel to the front edge of the desk. Against the oblique side of the angle the bottom of the book or paper should rest. If preferred, paste the angle so that its horizontal edge will be parallel to the right side of the desk. Against the slanting edge rest the side of the book or paper.

NOTE. Pasting this angle upon the desk will in no way injure school furniture. The device should be used long enough to help those who need it to visualize the desk top with either paper or book lying upon it in the correct position.

Blackboard writing

Nothing will contribute so greatly to the successful teaching of penmanship as excellent penmanship put on the board by the teacher. Not only should the technical writing lesson be painstaking, but whenever she has occasion to put written work there for the pupils, it should be carefully done. It must be remembered that the model teacher has the least teaching to do, because the children imitate almost every detail of her schoolroom procedure. They catch her expressions, talk as she does, reproduce her mannerisms, and,

above all, copy her style of writing. They face her written work many more hours of the school day than they look at the correct model in a copy book. Just as the camera's plate reflects the object to which it is exposed, just so surely will the teacher's style of penmanship be reflected in that of her pupils. Fortunately it is much easier to write well upon the board than upon paper, and a little practice each day will help a teacher to improve her own writing. It is sometimes said that teachers do not earn their salaries. If the reader has the least suspicion that this is in any sense true of her, then a twofold opportunity is suggested; first, if she should practice writing on the blackboard ten minutes a day for one month, she would greatly improve her technique; and second, she might (?) draw her next check with a somewhat relieved conscience.

Directions for writing on the board

1. Stand with the left side turned toward the board. In doing so you will look up obliquely across its surface. See Fig. 14.

2. Draw all the downstrokes of the letters in this direction, toward the eyes. This insures correct slant.

Note. It will be seen that when one turns his body and writes on the board, the axis line of the script will coincide with this oblique line of vision, just as the axis line of the script coincides with the line of vision when one faces his desk, looks straight in front of him, and tilts the paper. In each case the eyes have the same relation to the downstrokes of the script, — they are directly in front of them. The blackboard cannot be tilted; hence the necessity for standing with the left side turned toward it to give the writing the proper slant.

3. As an exercise for practice it is well to make long oblique lines on the board, thus training both eye and hand to the line of vision.

4. While practicing the last suggestion one should train herself to step along as she writes. If she stands still and tries to form letters consecutively by reaching to the right,

Fig. 14

her script will go "downhill." To correct this tendency, make the first two lines of small *n* and repeat them for a space of six or eight feet across the board, stepping along as you continue making the exercise (see exercise, page 95).

5. During the writing lesson, when it is desired to write a word or sentence straight upon the board, cultivate the ability to center the script with an imaginary line at the level of the eye. See dotted line in Fig. 14.

It will be noticed that the tops of the highest letters in the illustration are as far above this imaginary line as the bottoms of the longest letters are below it.

6. When teaching a subject letter it is exceedingly helpful to draw on the board a "writing staff." This consists of four horizontal lines which are named top, head, base, and bottom. When the staff is used for first-grade and second-grade children, the space between any two of these lines should be at least three or four inches.

NOTE. One mistake commonly made by teachers is to write the letter for the lesson too small on the blackboard. Because of this it is impossible to point out in it the details which are to be taught. In a room containing fifty pupils the author once saw on the board a capital *A* which measured scarcely three inches in height. Comment on this is unnecessary. Sometimes the teachers dislike to have the pupils see them draw the writing staff and write within it. They believe the children will think that the teacher ought to be able to write without such aid. This false idea should be forgotten. Many professors who have taught penmanship in public schools for years invariably draw such guide lines on the board and write between them. The grade teacher certainly should not hesitate to use them, but if she does not wish the lines to be visible to the pupils, she may draw them with a slate pencil.

7. When writing on the board take the crayon between the first and second fingers and the thumb. It should point backward toward the palm of the hand and not be held against the side of the first finger, as the penholder would be.

8. The crayon should come in contact with the board at an acute angle. If it touches at a right angle, it sometimes "whistles." Pupils should be taught how to use the crayon correctly.

9. Since continuous use of the crayon wears it away to a blunt, rounded point, which makes thick and oftentimes

ragged lines, it is well occasionally to snap off the end. The keen edge thus obtained will give a sharp line.

10. These suggestions are offered with particular reference to the writing lesson. With two exceptions, however, they should be used for general blackboard writing. If twenty questions in history are to be put on the board, the rules just given for writing on the eye level cannot be followed, nor can that for the writing staff.

Teaching forms of letters

What is often referred to as good writing is not wholly the product of imitative art. Unfortunately for the pupil he is too often depended upon to learn to write in this fashion. The author recently observed a lesson (?) in penmanship given to a class in a grammar grade. "June is the month of roses" had been written on the board before school. Consequently the pupils gained no help from watching the teacher write the copy.

The Lesson (?)

Teacher. Children, the copy is on the board. Can you all see it?

Class. Yes'm.

Teacher. Has each one of you a pen?

Class. Yes'm.

Teacher. Has each one some practice paper?

Class. Yes'm.

Teacher. Then you may write.

And write they did. During the entire period not a halt was called for comparison of the pupils' work with the teacher's copy. Neither was there any criticism by them of

their own writing. The author retired from that class room convinced that the teacher would not suffer from nervous exhaustion during the day because of her strenuous efforts to teach the morning lesson in penmanship.

If any study in the curriculum demands the application of psychology in its teaching, it is the one under consideration. For a perfect working foundation in learning how to write, the pupil must first possess a clear mental concept of the letter or word which he wishes to make. He cannot be expected to write pleasing forms on paper if he has only an incorrect and ill-defined imagery in his mind. To be sure, it is possible for one to have a good mental concept without the executive ability to write it well upon paper, but such cases are rare. The teacher should help the pupil visualize every conventional character he has to acquire, just as she would assist him to read a picture in the study of drawing; and she should teach him to join the characters so that they shall form words. The ability of the child to imitate is not the *primary*, but the *secondary*, part of the process in acquiring a legible handwriting.

The teacher should thoroughly acquaint herself with the technique

It follows that the teacher must thoroughly acquaint herself with the technique which she is teaching, — a simple matter, but one of inestimable importance if successful results are desired. Not only must she be fitted to help the pupil build in his mind the correct concept of any letter form, but she must also be able to give the suggestion which will help him to correct any mistake he has made in writing it. How can the teacher expect to meet these requirements unless she has in her own mind perfect ideals of the

characters she has to teach? One of the best reasons why penmanship in the public schools is poor, is the fact that it is not taught. If better results are to be secured, it *must be taught.*

It is hoped that the teacher will profit by the instruction next given before it reaches her pupils.

Four things to teach in the forms of capitals and small letters

Any one, or all four, of the following suggestions may be adopted: first, teaching from the basal form or principle; second, emphasizing the similarity of form throughout any given class of letters; third, giving definite and specific instruction about the letter; fourth, ascertaining the proportions of any character by comparison.

NOTES. 1. It is not intended to ask the teacher, in using the above suggestions, to return to the minutiæ of analysis which were in vogue when the old slant script was taught.

2. Many good teachers disagree as to the method to follow when script forms are first taught the young pupil. Some believe that he should learn how to make a few individual letters and combine them so as to form words; that he should then study one new letter at a time, immediately using it in a word; and that he should next be taught a few capitals, as *I*, *S*, or *M*, any one of which he may use in beginning the sentence which he may form from words that he has already written.

In building up this foundation list of words, many teachers follow the development of words in the primer or first reader from which the child reads. Thus is he taught to recognize a concept not only for the purpose of reading it, but also for the purpose of writing it.

3. Other teachers believe that the young pupil should first be taught a word as a whole, and then study its component letters individually.

4. Still others believe that the young pupil should first write a short sentence and then study the single letter,—a method frequently

followed in the first grade when the child writes stories in connection with language work as a means of expression of thought.

5. Since it is not within the scope of this book to discuss theory, these methods are merely stated. The instruction given teachers will follow the plan first mentioned, but a teacher who uses either of the other schemes will receive assistance from the following suggestions for teaching letter formation.

Letters should be taught from basal forms or principles. There are two reasons why letters should be taught from basal forms or principles: first, in order that the alphabet may be divided into groups or classes of letters; second, for the purpose of systematizing instruction. The following code of basal forms will be found convenient for use:

Basal forms or principles.

Basal Forms	Letters made from Basal Forms
1. *i*	*i*, *u*, *w*, and *t*.
2. *n*	(primary group *n*, *m*, *v*, and *x*).
	(secondary " *p*, *h*, *y*, and *z*).
3. *o*	*o*, *c*, *e*, *s*, and *r*.
4. *a*	*a*, *d*, *g*, and *q*.
5. *l*	*l*, *b*, *h*, *k*, and *f*.
6. *j*	*j*, *y*, *g*, and *z*.
7. *O* (the ellipse).	Most of the capitals are made from an ellipse. See Fig. 21, page 57.

Memory lesson. It is recommended that pupils in the middle and upper grades be asked to memorize this list of principles, as the teacher develops each one in regular order of instruction. Without overtaxing them in any way, this will give them very definite ideas of the origin of letter forms. The pupils should name each group of letters studied by the first one of its class. Thus, those based on the first basal form

should be known as the *i* letters; those based on the second are the *n* letters; those growing out of the third principle are the *o* letters; those based on the fourth are the *a* letters; and so on through the list.

Similarity of form. As an example of using this method of teaching, consider its application to the second group above noted.

Primary group. Small *n* is the basal form, and the first letter of this class to be studied. When the second letter is taught, show that the first two lines of *n*, prefixed to *n*, will form *m*. The first two lines of *v* are exactly like those of *n*, while the last two lines are the same as the corresponding ones of *w* and *b*. The first three lines of *x* are identical with the last three of *n*. The oblique cross line should be made the last stroke of the letter, with an upward or downward motion, according to the teacher's preference.

Secondary group. The lower parts of *p* and *h* are identical with the last three lines of *n* and the first three lines of *y*. The first two lines of *z* are the same as those of *n*. This last comparison is very helpful to the pupil, as he is apt to make the first down line of small *z* like that of capital *Z*. Instead of such a curve, he should make a straight line like the first downstroke of *n*.

Such a study of similarity of form shows at once what a close relation the basal form of small *n* bears to every letter of this group.

NOTE. Although it is a fact that *p* is a semi-extended letter and *h* and *y* belong to the loop class, nevertheless it has been found helpful to point out that parts of these letters are identical with a similar part of the basal *n*. In the same manner *g* has been included in the fourth group because of its similarity to *a*, notwithstanding the fact that it belongs to the loops, and is so taught.

It may be helpful at this time to refer to the teaching of the fourth group of letters noted on page 39. The basal form for these is the small *a*. This is not made round, like the ellipse of small *o*, although many pupils incorrectly make it so. The first part of small *a* is sharply pointed at its upper right-hand side. To teach this form successfully, emphasize its resemblance to an apple or squash seed, which is pointed at one end and curved at the opposite end. To differentiate between the *o* and the *a* group, teach the pupils to call the latter class the "apple-seed" letters.

Definitely teaching script forms

Every written character should at some time be definitely and specifically taught. An example of such teaching in the instance of capital *D* is given as an illustration.

1. First draw the writing staff (described on page 35, paragraph 6) on the board. Have the unit space at least three inches high.

2. Make a basal ellipse the proportions and slant of that required for the script which you are teaching.

3. From this develop capital *O*, which has already been taught, and convert the *O* into *D*. This can easily be done: first, by shortening the left side of *O* to three quarters of the height of the letter; second, by changing the remaining part of this left side into a slightly reversed curve; and third, by adding the loop at the lower left-hand part of capital *D*. Such modifications will show the similarity of form between *O* and *D*, and what a large part of the letter *D* capital *O* forms.

4. Having developed the *D* in this manner, write another beside it, making the complete letter as the pupil should write it. Thus the child will see the manner in which the *D* should always be written, and will in no way confuse this with the technical development of it.

The letter should now be definitely and specifically taught. As each step in the following instruction is developed, *number and write it on the board.* The pupil should learn and recite these things. If necessary, however, he may read them from the board in order that he may work understandingly for the results which he is trying to gain.

In Fig. 15 the following things should be noted: that these letters are made within the writing staff mentioned in paragraph 1; that the basal ellipse mentioned in paragraph 2 is made in dotted lines; that *O* is developed by adding the final curve of that letter to this ellipse; that the *O* thus formed is next converted into *D* by adding the solid lines and erasing the dotted line on the left side of *O*, as mentioned in paragraph 3; and that the complete *D* mentioned in paragraph 4 is afterward made as the pupil would write it. In this description of Fig. 15 the paragraphs mentioned are all on page 41.

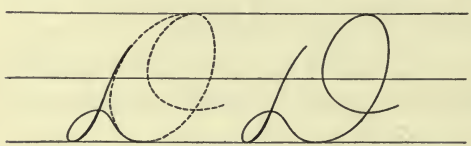


FIG. 15

1. Teach the class that the letter begins at three quarters of its height above the base line.

2. Teach the class that the first downstroke of *D* is a *slightly* reversed curve.

3. Teach the class that the loop of *D* extends upward one quarter of the letter's height above the base line.

4. Compare the axis of this loop with the axes of the loops in capitals *L* and *Q*. Note that these axes are horizontal, while that of the loop of *D* is practically like the slant of that letter.

5. Teach the class that the space between the point where this loop and the body of the letter touch the base line is equal to the height of small *i*.

6. Measure the width of *D* at one half of its height. Show that the final curve, as it passes down through the letter at that point, divides it in such a manner that about two thirds of the width of *D* is at the right of this curve and one third at the left of it.

7. Teach the class that the final curve of *D* passes out through the right-hand side of the letter at about one quarter of the letter's height above the base line.

8. Teach the class that *D* is twice as high as small *i*.

9. Teach the class that the body of *D* is two thirds as wide as it is high.

Practice in making capital D. Ask the pupils to write carefully ten *D*'s on one line of practice paper. When these are made, have every child place his pen quietly in the groove at the top of his desk. *This is important.* If the pens are not thus laid down, some boy will probably busy himself by drawing grotesque faces on his finger nails, while another will inscribe his initials on the back of his hand.

Study and comparison of work by pupils

When the ten *D*'s are written they must be compared most carefully with the detailed instruction and copy which are on the board.

Teacher. What is the first thing that you learned about capital *D*? Read from the board, Paul.

Paul. I learned that capital *D* begins at three quarters of its height above the base line.

Teacher to class. Study every letter that you have made, and examine it for this one thing. How many are correct? Has any one begun *D* either too low or too high? Please

decide just what you will do to correct this mistake in the next *D*'s that you make.

Teacher. What is the second thing that you learned about capital *D*? You may read from the board, Ruth.

Ruth. I learned that the first downstroke of *D* is a slightly reversed curve.

Teacher to class. Look at your letters. Is this part of them correctly formed? Did any one make these curves too deep? Did any one make this line a simple curve? Did any one make it a straight line? How many have decided just where they will correct this first line when they make capital *D* again?

Teacher. What is the third thing that you learned about capital *D*, Donald? Why, that is your capital, isn't it? So it is yours, Doris. Now, all listen carefully.

Donald (reading from the board). I learned that the loop of *D* extends upward one quarter of the letter's height above the base line.

Teacher to class. How many scholars have made this loop perfectly? If no one, how many have already found their mistake? Decide precisely how you will correct it when you write again.

Teacher. What is the fourth thing that you learned about capital *D*? You may read from the board, Marion.

Marion. I learned that the axis of this loop stands nearly the same as the main part of the letter, and not like the loops of capitals *L* and *Q*, for these are horizontal.

Teacher to class. Compare your *D* loops with the copy. How many find them the same? Those who have made a mistake please remember what must be done to correct it.

Teacher. What is the fifth thing that you learned about capital *D*? Please read from the board, Frederic.

Frederic. I learned that the space between the point where the loop and the body of the letter touch the base line is equal to the height of small *i*.

Teacher to class. I wish you would be very particular about this one thing. If any of you has made a mistake, he should mark it on some letter so that he will be sure to correct it when we make more *D*'s.

Teacher. What is the sixth thing that you learned about capital *D*, Gladys?

Gladys. I learned something about the width of capital *D* (reading from the board).

Teacher to class. Place some small dots on the edge of your practice paper. With these measure the width of your *D*'s and see if it is the same as the width called for on the board. Measuring these letters will help you to judge more accurately the width of the next *D*'s that you make.

Teacher. What is the seventh thing that you learned about this letter? You may read from the board, Philip. (Philip reads the instruction noted.)

Continuing this lesson is unnecessary. It is hoped that the above outline will show the teacher just what is meant by teaching and studying a letter definitely and specifically. If such is the instruction, how can any normal pupil fail to learn something of the origin of the letter studied or to form a clear-cut mental concept of it? Then, with thoughtful practice, what is there to prevent his constant improvement in letter formation?

In your class is such a pupil's present progress satisfactory?

Applying to the above lesson the suggestions on page 38 for teaching the forms of the capital and small letters, it should be noticed that (1) capital *D* was taught from the

basal form (see "Definitely teaching script forms," paragraph 2, page 41); (2) that the similarity of form was shown (see paragraph 3, page 41); (3) that the letter was definitely and specifically taught (see paragraphs 1–9 inclusive, pages 42–43); and (4) that both height and width of capital *D* were measured (see paragraphs 8 and 9, page 43).

NOTE. Regarding the lesson just described, two things should be noted: first, it is supposed to have been given in the middle or upper grades, where the pupils are thoroughly able to receive and profit by such instruction; secondly, although this has all been embodied in one writing lesson, it may or may not be so given by the teacher. If in her judgment there is too much material for one writing period, she should divide it among as many writing lessons as she thinks best. It has been the aim of the author to present in one place complete instruction about capital *D* as a model for teaching and studying any written character.

Instruction should be modified for first and second grades

It should be remembered that writing will have to be taught to first-grade and second-grade pupils in a much more elementary manner than that used in the middle and upper classes. Although primary children have to learn to write more largely from imitation, and the instruction given them cannot be so detailed as that given to older pupils, yet it will not do to depend entirely upon their power of imitation for good letter formation. Writing must be *taught* to these children, and it calls for fine discrimination on the teacher's part to know just what, how much, and when to teach.

Teaching script by measurement and comparison

If the teacher shows the normal child the proper way to develop any technique, as a rule the child enjoys the study. In such teaching her inventive power and her tact enable

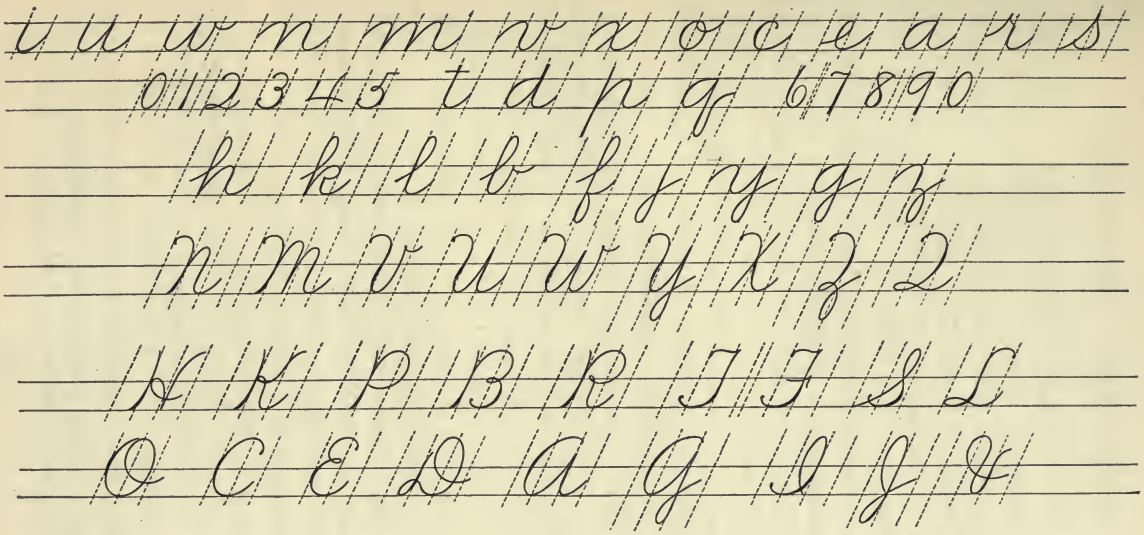


FIG. 16

Fig. 16 represents the forms of the letters and figures which are given in the Medial Writing Books published by Ginn and Company, Boston, Mass. All measurements of letters or figures given in this book are based on the forms in the Medial Writing Books. See note, page 57

her to make the most difficult subject popular. The disgust for and the deplorable results obtained in the writing period are largely due to the facts that imitating a copy soon grows monotonous, and that the child sees nothing in the study for which to work. One potent remedy, therefore, lies in giving him something to do.

To make any written character symmetrical in form, certain measurements and proportions must be observed. Instead of disliking to ascertain these, the pupils find such work very interesting.

Unit for measuring width. The unit for determining width is found in the space between the downstrokes of small *u*, measured at *right angles* to the main slant of the letter. Letters, or parts of them, of equal width to this unit are indicated in the following list: the unit *u*, between the first two lines of *w*, the two downstrokes of *n*, the three downstrokes of *m*, the first and second downstrokes of *a*, *d*, *g*, *q*, and *h*, from the first downstroke of *k*, measured horizontally to the right-hand side of the oval in the last part of the letter, and between the two downstrokes of *y*.

The following parts of small letters are two thirds of this width: between the third and fourth lines of *w*, the second and third of *v*, across the oval of *o*, the pointed ovals of *a*, *d*, *g*, and *q*, the bottom of *s*, and the lower part of *b*.

The following loops are one third as wide as the unit *u*: the loop in *e*, *h*, *k*, *l*, *b*, *j*, *y*, *g*, *z*, each of the loops in *f*, and that in the lower part of capitals *J*, *Y*, *G*, and *Z* are all the same in width.

For measurements in width for the capital letters, see Fig. 16, page 47, also description of letters, pages 57–71. The small *i* is the unit for measuring the height of letters.

Construction of script

In the middle and upper grades it will be found both interesting and instructive if the pupil is frequently reminded from what the letters and figures are made. These parts are, first, a straight *oblique line*, which forms the greater number of the downstrokes of the small letters; second, some curved figure, usually an *ellipse*, from which the curvature at the tops and bottoms of the letters is taken. Some of the letters, as has been shown, are made almost wholly from this figure.

The ellipse. A change in the proportions of the ellipse causes a corresponding change in the curvature of the script. The curves in the letters vary according to the proportions of the basal ellipse. If this happens to be wide in comparison with its height, then the curves in and between the letters will be *broad*. If the ellipse is narrow when compared with its height, then the curves of the script will be *narrow*. For an example of wide curves instance the vertical writing (see Fig. 17). This was fashioned from very wide ellipses and oftentimes from circles. The old slant writing gives examples of narrow curves (see Fig. 18). These were taken from basal forms, frequently but one quarter or one third as wide as their height.

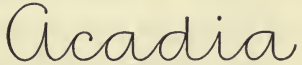


FIG. 17

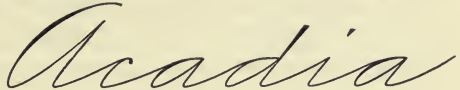


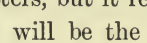
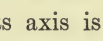
FIG. 18

The curves of the letters. Each curve at the top or bottom of any unit letter, as small *n*, usually forms about one fourth of its height. In this letter, therefore, the straight oblique

line forms three fourths the length of its first downstroke. In the right-hand part of *n* the curves at top and bottom each take one fourth, while the straight oblique line which separates them takes the other two fourths necessary to complete the height of that part of the letter. See Fig. 19.

Fig. 19

Angles. It is well for the pupil to try to make *angles* where certain lines meet at the tops and bottoms of some of the letters. In this particular notice the difference between the two letters written below.

Pure script has always been made with many of its lines separated. For this reason it can be written rapidly. Much vertical writing was made so that many of its upstrokes retraced its downstrokes. This was done that the vertical might resemble printed letters, but it reacted on its speed of execution. The tendency will be the same if the *m* is similarly formed, even though its axis is a slant line. In this case should the pupil try to write it rapidly, he would probably make loops when he attempted to trace the downstrokes with the upstrokes of the letter. This  represents script made of separated lines and angles. This  represents retraced lines and can only be "carved."

Thus it will be seen that if a script is to be written with facility, it should be constructed largely of *separated* lines. Hence the importance of emphazing the study of angles. If the oblique line, ellipse, curvature, and angles are gradually made plain to the pupils, such instruction will prove of inestimable value to them in interpreting the construction of script.

Supervision of first-grade work

It is strongly urged that pupils of the first grade should be allowed to write only under the direction of the teacher. If they write by themselves for desk work, the errors into which they fall can hardly be overestimated, either in number or importance. For similar reasons it is unwise to allow the very young pupils to *trace* a copy previously written by the teacher, unless she can watch them at their work.

Desk work for first-grade pupils

It may be asked what first-grade pupils will do for desk work if they cannot write. The author has studied this question in many cities. To summarize his observations briefly, he finds that word and sentence building with alphabet cards is favored. Industrial and other work is carried forward with both colored splints and pegs. Story work is elaborated. Cutting leaves, birds, animals, etc., from paper (after which such objects are mounted on cardboard) is approved. There is no doubt that sufficient work to occupy the child's mind can be arranged, to take the place of writing. The sooner penmanship is prohibited in the first grade, unless it is done under supervision, the sooner will the good effect of such prohibition be noted in every class thereafter.

How to teach the scale of script

The term "space," so commonly used by teachers, is a very abstract and meaningless unit to pupils. Some concrete plan, therefore, is desirable by which they can develop every detail in the process of determining the height or relative heights

of letters. That which is suggested below has been found to be easily understood and applied by pupils, and has met every requirement in point of detail.

1. Give each scholar a piece of single-line ruled practice paper.

2. Ask the children to trisect the space between any two lines by making two equidistant dots. These should be made with a fine-pointed pencil or with a pen.

3. When all the children can do this accurately, ask them to make a small *n* (or some other letter of unit height) in each trisection. These three letters should just fill the space

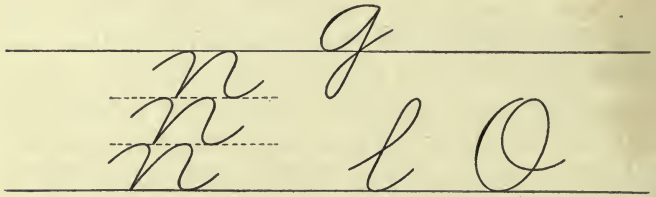


Fig. 20

between the two writing lines, the lower one resting on one line and the top of the highest one just touching the upper of the two lines between which they are written.

4. Begin the work of application. For example, ask that a small *o* of equal height be made to the right of and beside the lowest *n* in the column. Let the pupils learn and recite that *o* is one *n* high.

5. Continue this practice. Next ask them to write the word "on" eight or ten times on one line across the paper. At intervals ask the pupils to repeat between these words the work called for in paragraphs 2 and 3 of this section. Thus will they keep constantly before them the unit of

measurement by which they may judge the height of any other letter which they are studying.

6. In the same manner have them write such letters as *u*, *w*, *m*, *v*, *x*, *o*, *a*, *e*, and *c*, and words made from these. Thus will the pupils learn how high to make the *unit* letters between any two writing lines.

7. Repeat the work called for in paragraphs 2 and 3 of this section. Beside these spacing letters ask the pupils to make a small *l* as high as two of the *n*'s. This will lead them to see not only that *l* is as high as two *n*'s written one above the other, but also how much space it occupies between two writing lines.

8. In the same manner study *b*, *h*, *k*, and *f*, if thought best. It may be better to defer the study of this last letter until the list of those which extend below the base line is developed. Next combine these letters into words. This work should be carried forward in a similar manner to that described in paragraph 5 for the word "on." At intervals trisect the space between two writing lines and make the three *n*'s by which to judge the height of these letters.

9. Follow this by studying the height of the capital letters above the base line. Repeat the work called for in paragraph 3 of this section. Ask the pupils to make an *O* beside the lower two *n*'s. By such work they will see (1) that this capital is as high as two *n*'s; (2) that it is equal in height to all of the loops just studied; and (3) how much of the space between any two writing lines a capital letter should occupy.

10. Apply to word writing the suggestions given for loop-letter practice.

How to teach the length of parts of letters extending below the base line. The instruction thus far has demonstrated for

what the lower two thirds of the space between any two lines on single-line ruled paper is used. There remains the upper third of this space (that occupied by the upper *n*) to consider in studying the scale of script.

1. Repeat the instruction called for in paragraphs 2 and 3, page 52. Ask the pupils to write a *g*, making the loop extend below the base line just the length of the space occupied by the upper *n* next under this line on which *j* is written.

2. In the same manner teach *p, q, g, y,* and *z*; also *J, G, Y,* and *Z*. Apply the same in word writing which involves these letters. Carry forward this work in connection with the occasional writing of three *n*'s between two writing lines. Thus the pupils will constantly keep their writing unit before them by which to judge the length of any extension below the base line.

3. After the pupil has fixed the height or length of any letter in his mind by working with the three *n*'s, let him write on a fresh piece of paper the individual letter studied, — this time from a visualization of its correct measurement.

Code of rules summarized from the instruction on scale of script. *a.* On single-line ruled paper all unit letters occupy one third the space above the base line between any two writing lines.

b. Any loop or capital occupies two thirds of this space above the base line.

c. Every extension below the base line extends downward one third of the space between any two lines on single-line ruled paper.

d. Between any two lines on single-ruled paper, if letters of extreme length happen over each other (as a *g* occurring just above a *B*), they may touch, but should never pass each other.

When to teach the scale of script. It is not intended to suggest that the teacher make a continued effort to teach the scale of the script until every letter of each class shall have been studied with reference to this one thing. It is better to determine the height or length of each new letter as above described whenever such a form is for the first time taught or directly reviewed.

While it was necessary to classify this instruction to teachers so that the details might be consecutively developed, it is hoped that no teacher will be misled as to the manner in which this work should be taught.

Teaching the numerals

In teaching penmanship the numerals are often thought to be of small consequence; hence little attention is given to them, if, indeed, they are not entirely omitted. This is a serious mistake. A prominent merchant once said that in considering applicants for a position as bookkeeper in his office, if the first person who applied could write well, but made figures poorly, he would give preference to a second who made his figures well, although his writing might be poorer than that of the first applicant. The merchant's idea was that in ordinary business transactions the figures are often the most important part of the record, and therefore must be made so that they may never be questioned.

Whether or not this incident represents the consensus of opinion among business men, the *fact* is they are continually attaching greater importance to correctly formed figures. Commercial colleges recognize this tendency, and the making of figures legibly and rapidly forms no small part of the penmanship practice in these institutions. It is hoped that teachers

will realize the emphasis given to this matter, and constantly increase their efforts to teach and require better-formed numerals.

Measurements of the figures. In length. All of the figures excepting 6 above the base line are one and one-quarter times the height of *i*. The figure 6 is one and one-half times the height of this letter, while 7 and 9 extend below the base line one quarter of the length of the unit *i*.

In width. The figure 2, measured from the extreme left end of its loop to a point where it touches the base line at the right; the widest part of 3, measured from its terminating point horizontally to the right-hand side of the figure; the 4, measured from the lower left-hand angle horizontally to the right where the final curve crosses this line; the 5, measured across its lower part, as in the case of 3 above described; and the *a* part of figure 9, are all the same in width, — that is, equal to the *u* unit of width described on page 48

The cipher, as well as the lower part of 6, is two thirds of this width, and the lower part of 8 is one half of it.

If the pupil thoroughly learns these measurements, they will assist him materially in forming definite concepts of the forms of the figures.

Important details of form in the capital letters

As helps in teaching the capital letters definitely and specifically, the following important matters are presented. They should be emphasized when any one of these letters is made the subject of a writing lesson. In this descriptive outline of letters, these items of instruction are merely noted under some characters, while in the case of other letters such instruction is embodied in questions.

Note 1. The measurements for these letters which follow may not be mathematically exact, but without question are sufficiently accurate to use in teaching.

Note 2. It must be remembered that the instruction which follows is based on the capital letters given in the Medial Writing Books. Similar important points should be emphasized in the teaching of any capital letters.

Note 3. Fig. 21 shows the evolution of the capital letters from the basal ellipse. See basal form No. 7, page 39. Every capital excepting *X* is in Fig. 21. In the upper line, at the extreme left, are

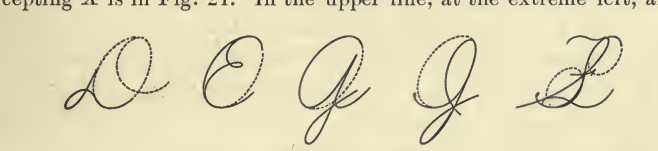
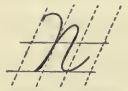


Fig. 21

O and *D*; next *E* and *C*; next *A* and *G*; next *I* and *J*; next *T*, *F*, *S*, and *L*. In the lower line, at the extreme left, are *P*, *B*, and *R*; next *H* and *K*; next *M* and *N*; next *Z* and *Q*; next *V*, *U*, *Y*, and *W*. The *X* is omitted because its two downstrokes are straight oblique lines and cannot be taken from the side of an ellipse. When teaching any capital letter so evolved it is both interesting and instructive to show its relation to the elliptical basal figure.



1. *Its beginning point.* One and three-quarters times the height of *i* above the base line.

2. *The height of the first part of the letter.* Twice as high as *i*.

3. *The height of the second part of the letter.* One and one-half times the height of *i*.

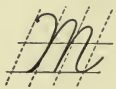
4. *The width of the letter at half height, measured at right angles to the main slant of the letter.* It is two thirds the width of the unit *u*.

5. *The terminating point.* When *N* is made for individual letter practice, it ends at one half of the height of *i* above the base line.

6. The first downstroke of *N* is a curve.

7. The second downstroke of *N* is a straight oblique line.

8. The first down and up strokes separate at mid-height.



1. *Its beginning point.* The same as that of *N*.

2. *The height of the first part of the letter.* The same as the first part of *N*.

3. *The height of the second part of the letter.* One and three-quarters times the height of *i* above the base line.

4. *The height of the third part of the letter.* The same as that of the second part of *N*.

5. *The width between the downstrokes at half height measured at right angles to the main slant.* It is the same width as between the two downstrokes of *N*.

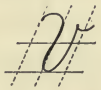
6. *Its terminating point.* For individual letter practice it is one half the height of *i* above the base line.

7. The first downstroke is a curve. The pen may be lifted between the first and second lines if desired.

8. The second and third downstrokes are straight oblique lines.

9. The first two lines of the letter separate at mid-height.

10. The third and fourth lines of the letter separate a little below mid-height.



1. *Its beginning point.* The same as in *N.*

2. *The height of the first part of the letter.* The same as that of *N.*

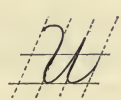
3. *The height of the second part of the letter.* It is one and one-half times as high as *i.*

4. *The width of the letter at half height, measured at right angles to the main slant of the letter.* It is two thirds as wide as the unit *u.* It is a little narrower at the top than at this point.

5. *The terminating curve.* It is horizontal and is as long as the letter's width at half height, noted in paragraph 4.

6. *Its terminating point.* It is one and one-half times the height of *i* above the base line.

NOTE. Do not make the first downstroke curve too much.



1. *Its beginning point.* The same as that of *N.*

2. *The height of the first part of the letter.* The same as that of *N.*

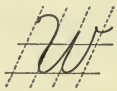
3. *The height of the second part of the letter.* The same as the second part of *N,* the third part of *M,* and the second part of *V.*

4. *The width between the two downstrokes.* It is the same as *u.*

5. *The terminating point.* When made for individual letter practice, it is one half the height of *i* above the base line.

6. In the middle of the letter the upward curve and downward straight oblique line separate at mid-height of the letter.

NOTE. Do not make the first downstroke curve too much.



1. *The beginning point of the letter.* It is the same as that of *N*.

2. *The height of the first part of the letter.* It is the same as that of *N*.

3. *The height of the second and third parts of W.* They are the same, and are one and one-half times the height of *i*. See paragraph 3 under *U*, page 59.

4. *The width between the two downstrokes.* It is the same as that in *U* or the unit *u*.

5. *The width between the two upward curves.* It is the same as the unit *u*.

6. *The terminating curve* It is the same as that in *V*.

7. The two lines forming the middle of the letter separate at mid-height of the letter.

NOTE. Do not curve the first downstroke too much. The bottoms of *W* are curves.

The first parts of *U* and *Y* are identical. Omit the terminating line of *U* and in its place make the *j* loop. For details of instruction on the upper part of *Y* consult that given for *U*.

1. *The beginning point of the letter.* The same as that of *N.*

2. *Its main downward line.* Make this a little nearer vertical than the main slant of the script. Be careful not to curve this line.

3. *The oblique cross line.* This is *straight.* It is usually made *downward.* It crosses the main line of the letter at one half its height.

4. *The width of the opening at the very top and at the very bottom of the letter.* It is the same in each case. The distance from the center of the beginning curve at the top, measured horizontally, to the beginning of the oblique cross line, and from the bottom of this cross line, measured horizontally to the right, to the center of the curve touching the base line, in each instance is equal to one and one-quarter times the width of the unit *u.*

1. *The beginning point of the letter.* It is the same as that of *N.*

2. *The first downward line.* It is a curve.

3. *The small loop connecting the upper and lower parts of z.*

a. It slants; it is not horizontal as is the loop in *Q.*

b. It is one quarter as high as *i.*

c. Make this loop *narrow.*

d. The space between the point where this loop touches the base line, measured toward the right to the crossing point of the lower loop of *Z* on the base line, is two thirds as wide as the unit *u.*

4. *The loop below the base line is as long as i.* It is one third as wide as the unit *u.* It crosses on the base line.

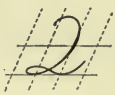
NOTE. In making this letter three things must be carefully observed.

a. Its slant.

b. The instruction given above in paragraph *d.*

c. The length of the letter below the base line.

If these instructions are followed faithfully, the pupil will be able to make all his *Z*'s vertically under each other in his writing book without their interfering with one another.



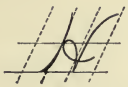
1. *Its beginning point.* The same as that of *N.*

2. The first down line is curved well to the left in its lower half.

3. *The small loop is horizontal.* It is as long as the unit *u* is wide. The crossing of this loop is almost vertically under the beginning point of *Q.* The loop is as high as one quarter of the height of *i.*

4. When *Q* is made for individual letter practice, it terminates one half the height of *i* above the base line.

Do not make the final curve extend too far to the right of the letter.



1. *The beginning point of the letter.* It is twice as high as the unit *i* above the base line.

2. The first downstroke curves slightly to the right of a vertical line.

3. *How wide is the space between the two parts of H at the top?* It is twice as wide as the unit *u*.

4. *The second downward line of H.* The upper half of it curves well to the left. The lower half of it is almost a straight oblique line.

5. *How wide is this letter at the bottom?* It is one and a quarter times the width of the unit *u*.

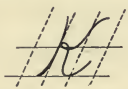
6. *The crossing of H.* It is a loop.

7. *How high is this loop?* It is one half the height of *H*. This loop does not quite touch the first downstroke of the letter.

8. *How wide is this loop?* It is two thirds as wide as the unit *u*.

NOTE. The upward stroke of this loop traces the second downward line of *H* only as high as one quarter of *i*.

9. For single-letter practice the final curve ends above the base line one half the height of *i*.



1. *The beginning of the letter.* It is twice as high as *i* above the base line.

2. *The first downstroke of K.* It curves slightly to the right of a vertical line.

3. *How wide is K at the top?* It is twice as wide as the unit *u*.

NOTE. Up to this point *H* and *K* are identically the same.

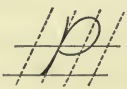
4. *The upper part of the second downward line.* It is a reversed curve.

5. *Where is the small loop located?* At one half the height of *K*. Its left end just touches the first line of the letter.

6. *Is this horizontal?* No. It slants at a right angle to the main slant of the whole letter. *Make this loop small.*

7. *Compare the width of the upper and lower parts of K.* The lower part is one half as wide as the upper part, measured at a point one and one-half times the height of *i* above the base line.

8. *How wide is K on the base line?* From the point where the first downstroke touches the base line, to the center of the final curve next to the right, it is one and one-quarter times as wide as the unit *u*.



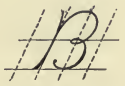
1. *The first downward line.* It is exactly like that of *H*.

2. *Where do the downward and upward lines of the letter separate?* At a point one and one-half times the height of *i* above the base line.

3. *How wide is the oval part of P?* It is equal to the height of *i*, which is a little greater than the width of the unit *u*. Measure this at right angles to the main slant of the letter.

4. *How near to the base line is the bottom of this oval part of P?* The distance is three quarters the height of *i*.

5. Do not have the final point of *P* quite touch the first down curve of the letter.



1. *The first downward line.* It is exactly like that of *H*.

2. *Where do the downward and upward lines separate?* At the same point at which these lines separate in *P*. See paragraph 2 under that letter.

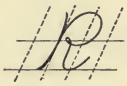
3. *How wide are the upper and lower parts of B?* They are equal in width to the oval part of *P*. See paragraph 3 under that letter.

4. *Where is the small loop which connects the upper and lower parts of B?* It is at half the height of the letter.

5. *What is the axis of this loop?* It is horizontal.

6. *How far is the left-hand end of this loop from the first downstroke of the letter?* This distance is equal to two thirds of the unit *u*.

7. *Where is the terminating point of B?* It is at a point one quarter as high as *i* above the base line, and the same distance to the right of the first downstroke of *B*.



1. *For the first downward line, the point of separation between the first two lines, and the width of the oval part of the letter at the top, the same instruction should be given as occurs under P, paragraphs* 1, 2, *and* 3.

2. *The small loop connecting the upper and lower parts of the letter.*

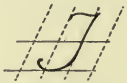
a. It occurs at half-height.

b. Its axis is *not* horizontal as in *B.* Its slant is at right angles to the main slant of the letter.

c. This loop is *very* small. Compare it with the loops of *H, Q,* and *D.*

3. *How does the width of the lower part of R compare with that of the upper part?* It is one half as wide. See paragraph 7 under *K,* page 64.

4. *What is the width of this letter on the base line?* The same as in *K.* See instruction in paragraph 8 under that letter.

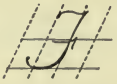


1. *The beginning point of the letter.* It is the same as in *N.*

2. *How wide is the horizontal top of T?* It is one and one-quarter times as wide as the unit *u.* It is a reversed curve.

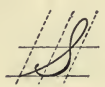
3. *What kind of a line is the downstroke of the letter?* It is a slightly reversed curve.

4. *Where is the terminating point of T?* It is at a point one and one-half times the width of the unit *u* to the left of the downward stroke of *T,* and one third the height of *i* above the base line.



The same instruction given in *T* should be repeated for *F,* up to the horizontal crossing line. This is called the "characteristic mark," for it is that which differentiates *F* from *T.* This mark consists of a horizontal curve as wide

as the unit *u*, joined in a very acute angle to a short downward line which curves to the left of vertical. The "characteristic mark" occurs at half the height of *F*.



1. *The beginning point of this letter.* It is on the base line. This is one of three capital letters which so begin. The other two are *I* and *J*.

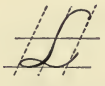
2. *What kind of a line is the downstroke?* It is a reversed curve.

3. *Where is the crossing of S?* It is at one half the height of the letter.

4. *How wide is the loop of S?* It is one third as wide as the unit *u*.

Notice that the lower part of *S* is quite similar in form to that of *s*.

5. *Where is the terminating point of S?* It is slightly above the first upward line of the letter. In other details the instruction given for the terminating point of *T* should be repeated for *S*. See paragraph 4 under *T*.



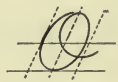
1. *The beginning point of the letter.* It is one quarter the height of *i* below the top of *L*.

2. *What kind of a line is the downstroke of the letter?* It is a reversed curve.

3. *Where does the change in direction of this curve occur?* At one half the height of the letter.

4. *Describe the loop of L.* It is horizontal and like that of *Q*.

5. *Where is the terminating point of the letter?* It is at a point one half the height of *i* above the base line, and one and a quarter times the width of the unit *u* to the right of the downstroke of the letter.

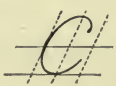


1. *The beginning point of the letter.* It is twice the height of *i* above the base line.

2. *What is the general shape of O?* It is that of an ellipse, two thirds as wide as it is high.

3. *O* is opened a very little at the top.

4. The terminating curve passes down through the letter, so that it nearly divides its width into thirds. Two thirds of this width is at the right of the final curve and one third at the left of it. This is the same in *D*.



1. *Its beginning point.* It is one half the height of *i* below the top of the letter.

2. *What kind of a line is the first of C?* It is an upward curve to the left.

NOTE. This should be emphasized. A common mistake in forming *C* is to make its top too indistinct because of a short line.

3. *What is the general shape of C?* It is that of an ellipse of the proportions of *O*.

4. *Compare the bottom of this letter with its top.* The bottom is *wider*. If it were made as narrow as the top, it would cause the small letter, with which *C* might be joined, to be too near the capital letter.

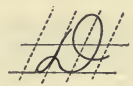
1. *The beginning point of the letter.* The same as in *C*.

2. *What kind of a line is the first of E?* It is an upward curve to the left. This is important for the reason stated in paragraph 2 under *C*.

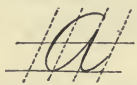
3. *At what part of the letter is the small loop?* It is a little above the mid-height of *E*.

4. *How does this divide the letter?* Two fifths of its height is above the loop and three fifths below it. These measurements are to be taken on the axis line of the letter. The loop should be made small.

5. The bottom of *E*, as in *C*, should be wider than the top of the letter and for the same reason.



Since this letter was explained in the model lesson on teaching a letter definitely and specifically, the instruction on it may be found on pages 41–43.



1. *The beginning point of the letter.* It is the same as in *N*.

2. *The first line of the letter.* It is an upward curve to the left, but not so long a line as in *C* and *E*. *This is important.* See paragraph 2 under *C*.

3. *How high is the second part of A?* It is one and one-half times the height of *i* above the base line.

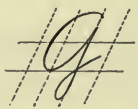
4. *How wide is the opening near the top of A?* It is equal to one quarter of the height of *i*.

5. *What kind of a line is the second downstroke of A?* It is a straight oblique line.

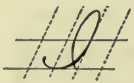
6. *Where does this line separate from the upward curve connected with it?* At one half the height of the letter. This is identical with *U*, *W*, *Y*, and *G*.

7. *How wide is the oval part of A?* It is one and one-quarter times the width of the unit *u*, measured at right angles to the main slant of *A*.

8. *The terminating point.* When made for individual practice, this is at one half the height of *i* above the base line and as far to the right of the downward oblique line as the unit *u*.



This letter is the same as *A* to the point where the oblique line touches the base line. To complete *G* add such a loop as was taught in *Y*.



1. *The beginning point of the letter.* It is on the base line.

2. *What kind of a line is the first of line I?* It is an upward curve to the *left*.

NOTE. The instruction in these two paragraphs is extremely important. A great many children will begin *I* at what should be its terminating point. In teaching this letter be sure to correct such a mistake, even if it be in an upper grade.

3. *Where is the crossing point of the lower part of I?* It is at a point equal to one quarter the height of *i* above the base line.

4. *How wide is the upper part of I?* It is two thirds as wide as the unit *u*.

5. Its terminating point is identical with that of *T*, *F*, and *S*.

1. The beginning point and first upward stroke are identical with those of *I*.

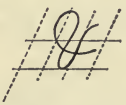
2. *The back of the letter.* It is a straight oblique line for the greater part of its length.

3. *Where do all the lines of the letter cross?* At the base line.

NOTE. The best way to teach this letter is to make a dot on the base line. Have the first upward stroke begin at this dot and the downward and second upward lines pass through it.

4. *How wide is the upper part of J?* As wide as that of *I*, — two thirds of the unit *u*.

5. *How wide is the loop below the base line?* One half as wide as the upper part of *J*.



1. *Its beginning point.* It is one and one-half times the height of *i* above the base line.

2. *What kind of a line is the first of &?* It is a reversed curve made downward.

3. *What kind of a line is the second stroke of & ?* It is an upward reversed curve to the full height of the character.

4. *How is the letter completed ?* Make a downward curve to the left and end it at a point equal to one half the height of *i* above the base line. This is very similar to the last curve of *O* and *D*.

5. *How wide is & between its downward and upward reversed curves ?* It is two thirds the width of the unit *u*.

6. *How wide is the oval part of & ?* It is as wide as the unit *u*.

How to correct angular script

In the examination of written work from an entire class it is occasionally noticed that several of the pupils are writing too angularly. Almost every teacher has at some time asked the question of a pupil, "What is that,—a *u* or an *n ?*" There is probably no one thing which will do more to make script illegible than making angles at the tops and bottoms of letters in certain instances where there should be *curves*. Hence the importance of correcting such a style of writing is obvious. This will prove to be a simple matter if sufficient practice in the following instruction is given to those who need it.

1. Write the word "Acadia" on the board in good-sized letters, and assist the pupils to form a mental concept of it as a whole.

2. Erase the tops of the letters in the entire word to a point one fourth of the height of *i* above the base line. There will remain only the curves at the bottoms of the letters.

3. To emphasize more strongly that these are *curves*, it is well to explain from where they came. To do this, make a

series of ellipses in place of the upper parts of the letters erased, and fit the bottoms of these ellipses into the curves of the letters which were left upon the board. Thus the pupil is led to see that the bases of these letters are identical with the curves at the bottoms of the ellipses.

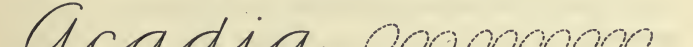


Fig. 22

Still another way in which this lesson in curvature may be taught is first to make on the board a series of *i*'s. The more accurately these are made, the more uniform and symmetrical will be the curves between the letters. Emphasize this symmetry.

4. From these *i*'s develop the word "adjudicated" as shown in Fig. 23. Explain to the pupil that the curves in and between the letters of this word are the same, when perfectly

Fig. 23

made, as those between a series of *i*'s. These would be the same as the curve at the bottom of an ellipse.

5. To simplify this matter for a grade in which scholars could not understand such a word as that given in paragraph 4, make six *i*'s in a chain, and from these develop the word "add." See Fig. 24.

Fig. 24

Fig. 25

6. If further simplification is desired, make a *u*. Place a dot over the first downstroke of this letter, thus converting it into an *i*, and make a *t* out of the second downstroke of the *u*. Thus the word "it" will be developed.

7. Reference to the ellipse has been made in the foregoing instruction. If pupils do not understand this figure, use *o* in teaching instead of the ellipse. Show that the curvature of the letters comes from the top and the bottom of this character.

8. The curves at the tops of the small letters, as *n, m, &c.*, are made from the top of an ellipse. This can be demonstrated as easily as to show the origin of the curves at the bottoms of the letters.

What to do with left-handed pupils

The question is frequently asked, "Shall we teach the left-handed child to use his right hand in writing?" In reply it may be said that in the majority of cases it is both possible and desirable to change the use of the pen from the left to the right hand.

If this is attempted, two things should be done. First, every little child when he enters school should be observed, and if any one is found to be left-handed, he should be taught how to use the pencil in the right hand. Second, the teacher should secure the coöperation of the parent to help and encourage the child in his work.

The author once talked about this matter with a very capable principal in a western city of 100,000 population. She said that her first-grade teachers were instructed not to allow any left-handed pupils to use the pencil excepting in the right hand. In one instance the teacher had begun such work with a little boy. His mother came with him to school the next morning and asked indignantly why he was being taught to use his right hand. After the principal had given her reasons for this change, she asked the mother if, for the

next ten days, she would be kind enough not to oppose the teacher's work in any way when the child was at home. It was agreed that if at the end of that time the boy did not use his right hand in writing, the teacher would discontinue her efforts in that direction. When this story was told, more than one year had passed, and the principal said that she had not seen the mother in the meantime and that the boy wrote with his right hand.

CHAPTER III

MOVEMENT

The work of teaching penmanship is twofold. First, the teacher must help the pupil form his concepts of the letters which he has to make. This is *mental.* Second, she must assist him to acquire the ability to *move* his arm and hand across the paper as he writes those forms. This is the *manual* part of the process. If a pupil "carves" passably good letters on his paper, the average teacher feels that her work is finished. She will say of some boy, "Why, John writes like copperplate. What more is needed?" In her idea of the boy's final product, and in her notion that her efforts to teach him should cease, she makes a great mistake. Penmanship is not now taught as an art, but is taught for its utility. The writing of to-day must be legible and rapid, and any script which lacks either of these essentials fails to meet the universal requirements. If a child slowly "carves" his letters, he is drawing script characters instead of geometrical forms.

The importance of movement

A principal of a school in a large city was once asked by a business man to recommend a grammar-school graduate to write in his office. The "copperplate" boy was sent, and after working one day was discharged. The principal was surprised beyond expression, and asked the gentleman why the boy was dismissed. The reply was: "The day that boy

came to me I had one hundred entries to make in my day-book. He wrote one and I wrote ninety-nine."

Every year the demand for rapid penmanship in the public schools grows greater and more insistent. The only way of satisfying this requirement is to teach *applied movement.* Furthermore, this work must show actual results, such as are now looked for from the successful teaching of geography, reading, history, or any other study in the grade curriculum. If a teacher thinks herself incapable of giving this instruction, there is but one thing to do, and that is to fit herself for it. In so doing, however, she will not be expected to become a specialist in penmanship, any more than she would be expected to do so in the subjects of music or drawing, which she teaches. To-day, in towns where there are no specialists in these subjects, the results obtained in teaching them are far more excellent than those gained in teaching penmanship by the same grade teachers. It is hoped, therefore, that the teacher will regard the following instruction as lessons for her to master, in order that she may teach them properly to her pupils.

Simplified pedagogy

Simplified pedagogy may be expressed as follows: first, explain to the pupil the work required of him; second, explain the process by which it is to be performed; third, drill him in this process; fourth, such drill results in training him in that particular technique; and fifth, continued training results in the education of the child. No better outline than this can be suggested for the teaching of movement and its application.

1. *Movement explained.* Explain to the pupils what is meant by movement in writing, — the new thing they are to study. To do so, compare the finger motion, which they use

in forming letters, with the larger movement of the arm as it rests upon the muscle. Name the first the finger motion, and the second the arm or muscular movement. To be exact, all motion is movement, but to differentiate in this case it will be sufficiently correct to have the pupils name and know these as termed above. Then ask the pupils to place the right arm on the desk, as described on page 4, paragraph *c*. When they have done so, help each one to move his forearm on its muscular rest in two directions: first, *laterally*, as one does when writing across the paper; second, in a *push-and-pull* fashion in and out of the sleeve. Such a movement an adult would use to a greater or less extent in forming the upstrokes and downstrokes of the letters.

More completely stated, the purpose of this work is to train the forearm to move continuously, so that the letters may be formed consecutively as the hand glides across the page.

From such elucidation and exercises the pupils form their first idea of "movement."

2. *Applied movement.* Explain to the class that every line corresponds exactly to the movement used in making it. Illustrate this instruction by making a horizontal line on the board with one sweep of the arm. Ask the pupils, "How did I make that line?" It is probable that almost every one will answer, "The crayon made it." Although this is in part correct, carry the questioning further. Hold the crayon still and allow the end of it to touch the board. Ask the class if the crayon is making a line. The answer will be "No." Ask them to look again. They will say that the crayon is making no line. With a sweep of the arm draw another horizontal line on the board. Repeat the question, "How did I make that line?" Then every pupil will see that the line was

made because the crayon touched the board and the *arm moved.* Thus the pupils are led to see *applied movement* in its simplest form.

3. *Technical application of movement to geometrical forms.* Explain a technical application of movement. To do so, show that every geometrical form corresponds exactly to the movement used in making it. The truer the circular movement which the arm describes, the more perfect will be the circle drawn. In a similar manner show that the hand must move along the four equal sides of a square, or the three sides of a triangle, in order to draw either of these figures. To emphasize this, show the class that it would be impossible to move the arm in a circular motion and draw a square in doing so. Thus the pupils not only see a technical application of movement, but they also learn that the figure made must, in every detail, correspond with the particular movement used in drawing it. Assist them to reason from this method of teaching drawing, which they know to be correct, to a similar application of movement when writing letter forms.

4. *Practical application of movement to written forms.* To illustrate this point explain that every capital, small letter, and figure corresponds exactly to the movement which makes any one of them. As an example, develop *n* as follows: Say to the class, "First, I think of *n*; second, I will move my arm just as I *think* every line of the letter; and third, I will let the crayon touch the board and *make n* just as I think it, and exactly as my arm has moved to represent every line of the letter." Thus the teacher writes (not "carves") the *n*. Call this the *n* letter movement. In a similar way the pupils should name every particular movement for the letter it forms, as the *l*, *z*, *s*, or capital *H* letter movements. For

example, show that it is impossible to make an *l* with a *z* letter movement, for any letter corresponds in every detail to the movement used in making it, just as any geometrical figure would correspond to the movement used in shaping it.

5. *Practical application of movement to written words.* Show that every written word corresponds exactly to the movement used in writing it. Name every particular movement for the word it produces, as the "it," "did," "come," word movements. To emphasize, show the class that it is impossible to write the word "come" with the "did" word movement, for any word corresponds in every detail to the movement used in writing it. Through the development of these successive explanatory steps the pupils are led to see these things:

Three things in movement learned by the pupil. 1. What is meant by "movement" when writing.

2. That every letter or word has its own particular movement.

3. That writing is applied movement.

The teacher should strongly emphasize these facts:

1. That continued drill on any individual movement will make its execution automatic.

2. If the pupil follows these suggestions, he will write and not "carve" his letters and words.

Class-room conference to elucidate elementary movement

NOTE. The foregoing suggestions for the elucidation of elementary movement work are designed for class-room conference. The teacher, however, must not feel obliged to develop in one talk what has been outlined in the last five paragraphs. She should take the time of *several writing lessons* to do so. It is foundation work, and the successful results hoped for in teaching it will depend largely on how *clearly defined* it is in the mind of the pupil.

The ideal writing motion

Before giving definite and specific instructions in teaching movement and its application, it will be necessary to explain exactly what constitutes the writing motion.

The *origin* of the so-called "muscular movement" used in writing lies in the muscles which move the shoulder forward and backward. The *center* of this writing motion lies in the fleshy part of the forearm just in front of the elbow. This is the arm rest described on page 4.

The question is sometimes asked, "Should the fingers move in forming the letters?" The answer is, that finger movement should never be taught. The young child, however, uses his fingers to some extent when shaping letters. To assist him to acquire an easier process for such work he should be helped to make large letters. This should first be done on the blackboard, and then at his desk on unruled paper with a large, soft crayon pencil. The exaggerated size of script will *induce* a movement of the forearm when writing on paper, for his little fingers cannot shape it. The first unit letters made on unruled paper should not be less than one inch high. Such induced movement should be emphasized through the early school life of the pupil and applied as the letters are reduced in size. Thus will be laid the foundation for teaching technical movement, — work which our best educators agree ought to begin in the third or fourth grade.

Notwithstanding the procedure outlined above, the probability is that some of the young pupils will move their fingers a little in letter formation, and may not wholly forget to use them in after years. Therefore the forearm movement must be practiced, which will help them to overcome the finger

motion to a great extent. Such of it as they may retain will not be the result of *conscious effort.*

A teacher who had had phenomenal success in teaching muscular movement in grade work was once asked if all her pupils used it at all times and never moved their fingers when forming letters. Her very significant reply was, "I never saw a class that attained one hundred per cent in any study."

Many adults have trained themselves to always use the muscular movement. There are great differences, however, between an adult and a public school pupil, both in the actuating motives and in the existing conditions under which each performs his work.

What gives speed to writing is the ability to *glide the hand* along the paper to keep pace with the formation of letters. Compare such an easy, graceful movement with the constant change of hand rest which the average pupil employs in moving his hand across the page.

From the foregoing it may be deduced that the ideal writing motion is one in which the muscular movement is the dominating power. If, however, a person *unconsciously* uses his fingers in the partial formation of certain letters or words, it is not objectionable, providing his hand glides rapidly along the paper as he continues the process of writing.

Studying the movements of the muscles

Three suggestions are given to help in teaching the pupil to understand the movements of the muscles in the shoulder and arm.

1. *Feeling the muscle and its vibratory motion. a.* Ask the pupil to hold his left arm up before him. This hand should be in front of his body and turned so that its palm faces the ceiling.

b. Ask him to place the muscular rest of the right arm in the flattened palm of the left hand.

c. Ask him to close the fingers of his left hand on the right-arm muscle and grasp it tightly. Thus he will *feel* this muscle.

d. Ask him to push and pull this muscle as he grasps it, allowing it to *move* (not slide) on the palm of the left hand.

e. Release the right-arm muscle from the left hand and place it properly for writing. As it rests on the desk, continue the vibratory motion practiced in the left hand (paragraph *d*). The pupil should thoroughly understand this muscular action, having felt it in the palm of his hand.

f. Ask him to repeat the work called for in paragraph *e*. As he does so have him put his left hand on his right shoulder, and he will feel the forward and backward movement which causes the forearm to move in the same directions on its muscular rest.

2. *Comparing this muscle to soft rubber.* A second method of teaching the vibratory action of the muscle is to ask the pupil to imagine that the fleshy part of his right arm, in front of the elbow, is a piece of soft rubber. Should he push on this, the hand would move out of his sleeve, while a slight reverse motion would cause the hand to return to its original position. He should practice these two movements briskly and thus cause the hand to move rapidly in and out of his sleeve.

See suggestions for teaching the "push and pull" exercise on page 92. This exercise exemplifies the muscular movement.

3. *Rolling the hand on a cylindrical form.* A third method sometimes used is to have the pupil place his right forearm and hand on the desk, as illustrated in Fig. 8, on page 17. Under the palm of the hand may be placed a pencil, straight

penholder, small spool, or a small model cylinder used in teaching drawing. As the pupil pushes and pulls on the muscular rest of the forearm, the cylindrical form will roll under the hand, which will make easier the process of acquiring muscular movement.

The mechanics of movement

In the development of training in any technique certain mechanics are necessary. If these are properly unfolded to the pupil, and intelligently practiced by him, they cannot fail to become *automatic*. This means *applied education* for the student. In the mechanics of teaching movement one should first note the technical exercises which are intended to help the pupil gain control of his forearm while writing. Every teacher is acquainted with the forms of exercises representing the lateral sweep across the page, the push-and-pull muscular movement, the ellipses, — both horizontal and on the main slant of writing, — and others of similar nature. An attempt will be made to suggest how to teach these exercises, as well as how to apply the movement which they are intended to help the pupil gain.

How the technical exercises should be practiced

Fig. 26

1. The use of every movement exercise must be given to the pupils, and they should state how it will help them to practice it. For this slide see explanation of movement, page 78. This exercise should finally be made at a speed of one hundred and sixty single slides per minute.

a. This is the simplest of all exercises. It should first be taught by asking the pupil to "form" his hand ready to receive the pen. Follow the instructions given under "Summary of penholding," on pages 17 and 18, as far as 4. The pupil should not hold either pen or pencil.

b. While the pupils are so practicing this or any other exercise, they should always be given a piece of paper to place under the right hand. They will then think of *movement* and its *relation* to the paper, whether a line is written or whether the mechanics for it are practiced.

NOTE. A mistake is often made in not so supplying paper. For example, when first teaching the lateral slide exercise, some teachers allow their pupils to move the arm from the left to the right side of the desk. Thus, in the first place, the pupils form no intelligent idea of the use of such movement, and, secondly, they fall into either a careless or a perfunctory manner of executing the movement.

c. Train the pupil to move his right hand entirely across the paper, letting the hand slide on the third and fourth fingernail rest. Be sure of these things:

(1) That the right hand is *upright.*

(2) That the wrist is *elevated.*

(3) That no part of the hand touches the paper excepting the *finger nails* mentioned in "Summary of penholding."

(4) That the first two fingers and thumb have *no independent action.*

(5) That these two fingers and thumb are held *up* from the paper.

It is not beyond the power of the average child to do these things.

d. Following the instruction in paragraph *a,* direct the pupil to take his pen or pencil and invert it. Thus holding

it, he should continue the lateral-slide practice called for in paragraph *c*.

e. Next direct the pupil to take ink, to let the pen point touch the paper, and to continue the lateral slide as above practiced, and the line will be recorded.

NOTE. It will be noticed that the above instruction calls for the same movement to be practiced under three conditions: first, with the hand formed ready to receive the pen or pencil; second, with an inverted pen or pencil; and third, with the purpose of recording the line. This progressive action is advised for two reasons. First, *movement* is the important thing studied, and the pupil should have practice in this alone, that he may understand thoroughly and fasten in his mind the mechanics of the exercise; second, if from the beginning of the study of any exercise he takes ink and records the line, he will become interested in *what* he is making and not in the *process* by which it is made. Hence he will "carve" it slowly and thus defeat the freedom of execution which he should acquire.

All technical exercises should be practiced according to the above instructions and particularly as called for in paragraph *c*, page 85.

2. *The e exercise.* The reason for practicing this exercise is to demonstrate the fact that the purpose of the lateral slide is to train the forearm to move as the letters are formed.

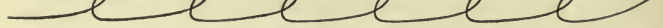


FIG. 27

a. The next exercise taught, therefore, should be a chain of small *e*'s, and should be made to extend across the page. This is very easy to execute because it requires a continuous movement in curves. At first direct the pupil to make six letters in a chain, thus providing for open spaces between them.

b. Ask the pupil to write his first exercises with a pencil. Unruled manila paper may be used for such work.

NOTE. During the initial execution of any exercise it oftentimes proves easier to obtain the desired results if the pupil uses a pencil. Thus he will learn *what* to do when he finally takes his pen and white paper for such work. Make sixteen lines of *e*'s per minute.

c. The loops of the *e*'s in this exercise should be equidistant.

NOTE. Two things must be understood by the teacher. First, teaching *movement* and giving *speed* tests in writing are very different. During the first practice a pupil should move his forearm at a medium rate of speed. There is a difference between doing this and slowly drawing an exercise. It is only after the medium speed is acquired that the pupil should accelerate this motion. Too frequently both teacher and pupil work under a misapprehension that a high rate of speed is necessary from the very beginning of the study of movement, — a mistake sure to bring disastrous results.

Second, the teacher must not think that when movement is first studied it will be better to devote *all* the writing lesson to that and no time to letter formation. This idea is pure fallacy. From the moment it is attempted the pupil's writing will constantly deteriorate. There is only one way to study movement properly, and that is to combine it with the study of the script. Thus legibility is *maintained* and facility of execution is *attained*.

3. *Connected ellipses.* Elliptical exercises are practiced for three reasons: first, because they help one gain control of the forearm; second, because many capitals and some of the

FIG. 28

small letters are made from the ellipse; and third, because such practice helps the pupil to make curves at the tops and bottoms of the small letters.

The next technical exercise studied should be connected ellipses. Since it is most natural for the hand to move in

curves, this exercise will be but little more difficult for a young or inexperienced pupil than the simple chain of *e*'s.

a. Direct that six ellipses be joined in a chain across the page. Making these will require *continuous* motion.

b. Instruct the pupil to make these entirely of light lines. Allow no shading. Close ellipses at the top.

c. These ellipses should be made as large as *O* at first, but must gradually be made smaller during continued practice until they are the size of *o*.

d. Such progressive diminution in size must not be *forced*, but should naturally follow the pupil's proficiency in doing

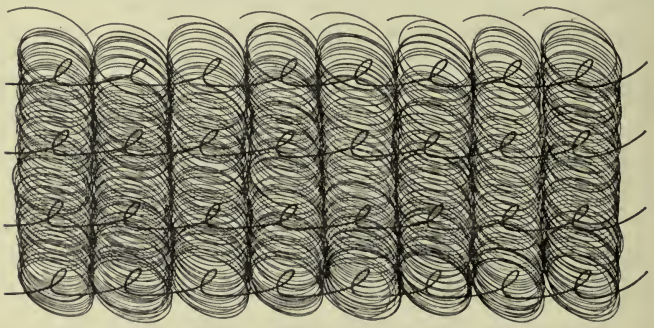


FIG. 29

the exercise. This will depend upon the degree of control he has of the forearm movement.

e. The teacher, at her discretion, may direct more than six ellipses to form any chain.

NOTE. In teaching movement and its application, the importance of a light touch of the pen upon the paper must not be underestimated. The points of a pen are never to be used as a plowshare. Special practice in this particular must be arranged for the pupil. Emphasize it in this exercise and later in cross-line exercises. See Fig. 29.

4. *Repeated ellipses.* The reason for practicing this exercise is given at the bottom of page 87. When teaching it, follow the instructions under "How to use the tracing process," page 98, in connection with the suggestions here given.

Fig. 30

a. This refers to forming a basal figure and repeating the movement, thus making several ellipses to cover the first one made. It will be well for the pupil never to make more than twelve revolutions on any ellipse. He should be able to make these without depositing too much ink on the paper or scratching its surface. Direct the pupil to make eight ellipses to be joined in a chain across the page. See Fig. 30.

b. To count for this exercise the teacher should read the instructions on the lower half of page 124.

c. It will be easier to do this exercise first with pencil and paper. Make the ellipses larger (the teacher's judgment should determine the size) during the initial practice. As greater control of the forearm is gained, the figure should be reduced in size. This reduction may be gradual in a single exercise as it is made across the page, or, as successive lessons are given on the repeated ellipse, each set of eight ellipses may be made smaller until they are the size of *o.*

d. Make these ellipses separate figures at first, and afterward connect them as in the illustration.

e. These ellipses should be made in two directions: first, the pupil should begin at the upper left-hand side of the figure and move *downward;* and secondly, Fig. 30 should be

inverted and this motion reversed as shown in Fig. 37. See arrows of indication.

5. *Continuous ellipses.* The reason for practicing this exercise is given at the bottom of page 87.

FIG. 31

This exercise should also be inverted and made with a reversed motion. See arrows of indication

a. This is the most difficult of the elliptical exercises, but pupils who have been trained according to the foregoing outline of technical movement will have little trouble in performing it. Perfection of execution will be gained through practice.

b. So gradual should be the lateral slide across the page that the pupil should use at least four minutes to make one line of this exercise. Hence, at a speed of two hundred revolutions of the hand per minute he would make eight hundred ellipses on each line of practice.

c. During first practice this exercise should be made at a speed of one hundred revolutions of the hand per minute, which should be gradually increased to twice this speed. The teacher must first acquire this rate in her own practice by counting as she looks at her watch. It is only after such experience that she will be able to count correctly to assist the pupil.

NOTE. The successful making of any elliptical exercise depends upon the perfect elliptical revolution of the hand. It follows, therefore, that it will be exceedingly helpful if the pupil carefully practices and studies such a movement with an inverted pen or pencil.

FIG. 32

6. *Push-and-pull exercise.* The reason for its use is stated in the second paragraph under "Application of movement," page 97. This exercise must be made continuously across the page.

FIG. 33

a. This refers to the vibratory action of the muscular rest of the arm. This fundamental movement is described on page 82 under "Studying the movements of the muscles." It is important because it trains the arm to move along the *axis line* of the script, which determines the *slant* in writing.

b. The teacher must assure herself that the pupil has a thorough understanding of that particular motion.

c. The pupil must execute this exercise at the rate of one hundred downstrokes a minute at first, so that the teacher can see he is working out the required details of the movement. This speed should finally be increased to two hundred downstrokes a minute.

d. The teacher should be sure that the pupil does not *pause* at either end of the vibratory motion. Smoothness of execution is of absolute importance in this practice. If a pupil stops at the top or at the bottom of any stroke of the pen, he will do so at the tops and bottoms of his letters, thus many times making angles where there should be curves.

NOTE. The *direction* in which the vibratory motion noted in paragraph *a* is made is of inestimable importance. It should be parallel to the right or left side of the desk, which would make it coincide with the line of vision. To assist the pupil to acquire this direction place the ruler as is illustrated in Fig. 12, page 24. Ask him to place the side of the pen or pencil point against the right side of the ruler and practice the push-and-pull motion. The ruler will guide the pen along the line of vision. By way of application

alternate such work by having him practice this exercise without the aid of the ruler.

7. *Combined motions.* The pupil has so far been trained in three specific movements, and, to some extent, in a combination of them. This work of combining these separate movements into what may properly be called the "writing motion" must now be emphasized by practicing exercises which can easily be developed into *basal letter forms.*

The particular movements above noted are:

First, the lateral slide across the page — which is necessary for facility in writing.

Second, the elliptical motion — by which the curvature of writing is formed, as well as many of the capital letters.

Third, the push-and-pull vibratory movement — by which the up-and-down strokes of the letters are largely formed.

To assist in shaping certain basal letters use the following plan:

a. Direct the pupil to make the elliptical exercise in Fig. 30, page 89.

b. He must make but eight revolutions to each ellipse, and these with a light touch of the pen.

c. When this exercise is completed the pupil may move his hand back to the left side of the paper and do the *i*

Fig. 34

exercise to combine with the bottoms of these ellipses across the page. See Fig. 34.

d. Repeat the *i* exercise three times, covering the first one made.

8. *The i exercise. a.* The pupil should now practice the *i* exercise *independently* of the ellipse. He should make the *i*'s in the repeated fashion.

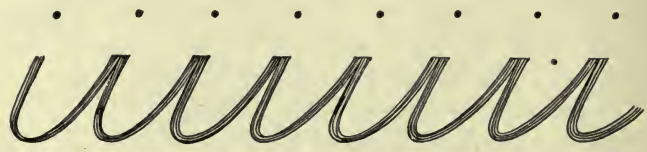


Fig. 35

b. These may be made large at first and gradually reduced, without repeating, to the final size of one third the space between two blue lines on the single-line ruling which the pupil is using.

Fig. 36

c. It will be observed that this is the basal exercise for *u, w,* and *t.* These may be made in chains across the page, like the *i*'s.

Fig. 37

9. *The i exercise inverted. a.* First direct the pupil to make the elliptical exercise in Fig. 37. He should make but eight revolutions of each figure with a light touch of the pen.

b. Ask him to move his right hand back to the left side of the page and make the first two lines of *n* combine with the tops of these ellipses across the paper. See Fig. 38.

Fig. 38

c. He may repeat this three times, covering the first one made. See Fig. 38.

Fig. 39

d. Following this he should do exercises in Figs. 39 and 40.

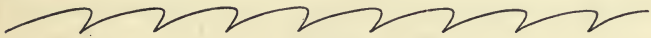


Fig. 40

10. *The n exercise.* The pupil may now practice the *n*, *m*, or any other letter based on *n* in an individual letter exercise. It is much better, however, to combine such subject letters into words, as too much technical practice is uninteresting to the pupil.

The above outline shows three progressively graded steps in technical-movement practice: (1) the specific movements themselves; (2) their combination into what may be called the "writing motion"; (3) the technical application of this "motion" to writing individual *basal* letter forms.

The pupil should now go on with the "tracing process" as applied to letter writing on page 99, and to word writing on page 100.

NOTE. It is well known that the basal-movement exercises above referred to are few in number. A pupil will sometimes tire of making them, notwithstanding their educational value. The teacher may wish, therefore, to form different designs from these single exercises by combining any two or three of them. The advantage of such combinations is that frequently the pupil's interest in movement-exercise work is stimulated by having a new conventional figure to practice, although the same end is sought, — control of the forearm. If the teacher carries forward this kind of work, as a reward for special excellence in it, it is well to ask the pupils to make original designs and fill them in as movement exercises. These should be preserved as specimens of their work, which, of course, will be pleasing to the children.

CHAPTER IV

APPLICATION OF MOVEMENT

The pupil has now demonstrated four things: first, that the *muscle* of the right forearm is identical with the muscular arm rest; second, that he can make this muscle extend and contract; third, that such a vibratory motion will cause his right hand to move in and out of his sleeve; and fourth, he has developed and made a few basal letters, using this vibratory motion to do so.

Next, the pupil must be informed that he is required to practice this movement because, so far as he can, he is to make every upstroke of any letter with the outward push of his arm on its muscle, instead of extending his fingers upward. In a similar manner, so far as he can, he must make every downstroke of any letter by a slight inward pull of this muscle, instead of using a downward movement of his fingers.

From this point onward, every advanced step in teaching must deal more and more closely with applied movement. Furthermore, the pupils should make a practical application of it in all the written work of the class room. The script so formed will look crude at first, but as greater control of the forearm is gained by continued application, the writing will become a more graceful and finished product. This will be the final result of an automatic reproduction of the mental concept. To this end it will be found helpful to use what may be termed the tracing process.

How to use the tracing process to explain the transmission of motion

1. For example, have each pupil draw for himself on practice paper several ellipses. These should be at least three quarters of an inch high and one half an inch wide. They should be on a line at least one third the way down from the top of a sheet of paper of letter or composition size.

2. Ask the pupil to take the proper writing position of body, paper, and hand, without holding pen or pencil.

3. Have him place the third finger nail of the right hand on one of the ellipses previously drawn, and trace the figure several times with this nail.

4. As he traces the figure with the finger nail the forearm rolls on its muscular rest. There is also a slight outward push and inward pull of the muscle in tracing the right and left sides of the figure.

5. During all this tracing keep the first and second fingers and thumb from moving independently up and down. They should move only as the hand carries them.

6. See that the pupil concentrates his study on the *process* of tracing. Have him continue such work until he thoroughly understands the mechanics of this motion.

7. To make full application of the foregoing instruction, ask the pupil to continue the proper writing position, holding a pencil and letting the point of it touch the paper. Be sure that he follows the instruction given in paragraphs 3, 4, and 5 of this section. At first do not let him look at the figure which the pencil is recording, but see that he gives strict attention to the elliptical formative movement. As this is, so the shape of the figure must be. Thus he will see that

because there was no independent finger action, the vibratory muscular motion was transmitted to the point of the pencil, which, guided by the third finger as it traced the ellipse, caused the elliptical form to be recorded.

NOTE. In the development of this instruction great emphasis must be laid on the thoroughness of both teaching and practice. On these will depend successful results of applied movement. In all such work (1) the pupil must have a very definite mental concept of the form he is asked to make or write; (2) he must understand fully the mechanics of motion necessary to shape this form, — a matter which can best be learned by the tracing process just described; (3) he must apply these mechanics of motion in making the desired form; and (4) he must practice the movement necessary to write that particular form until the process becomes automatic. When the pupil has accomplished these things he will write easily and rapidly.

At first these successive steps must be developed slowly, in *every* new letter which the pupil studies. Do not think of teaching several new letters or words during any one writing lesson, but devote several lessons to each. The time will come when the pupil will be able to advance more rapidly, when it will not be necessary to spend so much time to learn how to write (not "carve") a single mental concept on paper. The principle of making haste slowly is the only one by which to be safely guided.

Tracing process applied to letter writing. In a similar manner have the pupils make an *n*.

1. Ask the pupil to make on paper several *n*'s. These should be at least half an inch high, and should be written separately on a line at least one third of the way down from the top of a sheet of paper of letter or composition size.

2. The pupil should take the proper writing position of body, paper, and hand, but must not take pen or pencil.

3. Ask the pupil to trace every line of an *n* with the third finger nail. He must keep the first two fingers free from any independent up-and-down action. Every upward motion (and line of letter) must be made by pushing slightly on the forearm muscular rest. Every downward motion (and line of letter) must be made by a slight reverse movement of this muscle.

4. When he understands thoroughly the mechanics of motion necessary to write an *n*, let him hold his pencil or pen and allow the point to touch the paper. Ask him to follow the instructions given in paragraphs 1, 2, and 3 above, without looking at what is being recorded. When he stops this practice he will find that because there was no independent finger action the vibratory muscular motion was transmitted to the point of his pen or pencil, which, guided by the third finger as it traced the *n*, caused the same letter to be recorded or written.

5. The pupil should practice the foregoing exercise until he can make the *n* automatically.

Assist the pupil to develop other letters, first teaching the *individual movement necessary to write each one.* Name each movement for the letter it writes. See page 79, paragraph 4.

The tracing process applied to word writing. 1. Help the pupil write a word. Ask him to write "see" several times on his practice paper, making the letters half an inch high and on a line about one third the way down from the top of a sheet of paper of letter or composition size.

2. Ask him to take the proper writing position of body, paper, and hand, but not to take either pen or pencil.

3. Have him trace the word "see" with the third finger nail, observing that every up-and-down stroke of the letters

is made by the vibratory motion of the muscle at the fore-arm rest. The fingers must not move to shape the letters. Notice that the arm slides slightly along the desk toward the right, to keep pace with the continuous formation of the letters.

4. When he understands the mechanics of motion necessary to write "see," ask him to hold his pen or pencil and let the point touch the paper. Let him continue the tracing process asked for in paragraph 3 above. When he stops this practice he will find that because there was no independent finger action the vibratory muscular motion was transmitted to the point of his pen or pencil, which, guided by the third finger as it traced the word "see," caused that same word to be recorded or written.

5. The pupil must continue the practice until he can write "see" automatically. Then let him practice other words in the same manner. Name each movement for the word it writes. See page 80, paragraph 5.

The tracing process applied to writing capital letters.

1. The pupil should now study a capital, first using the tracing process until he fully understands the mechanics of movement necessary to write any particular capital letter and can make it accordingly. Such practice should be continued until he can reproduce that mental concept automatically on paper.

2. In grades where applied movement is studied, any new small letter, word, or capital given as a lesson in the copy book should be practiced according to the "tracing process." The pupil should name each movement for the form which it writes. This assists him to use applied movement in his copy book.

How to help the pupil always to use applied movement in writing

During the first work of teaching applied movement it is occasionally noticed that pupils will use such motion during the writing lesson but do not use it in all the written work of the class room. This difficulty and its remedy will be considered carefully on later pages of this book. For immediate purposes the following suggestions will be found helpful.

Alternating a technical exercise with written work. 1. At the left side of the paper the pupil should begin the usual push-and-pull exercise, making it for a little distance along the line to the right.

Without lifting the pen or pencil he should connect with a chain of small *n*'s, or with any other individual letter which the teacher wishes him to practice. After making these for a little distance he should merge into the push-and-pull exercise, and then make the letters again. Alternation of exercise and letter should be practiced across several lines of the practice paper, the pupil keeping his pen on the paper during the writing of each entire line. This trains him in continuous movement. See Fig. 41.

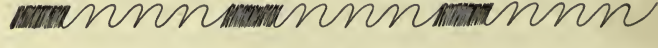


Fig. 41

Note. The object of the above work is to generate the *power* of writing by practicing a technical exercise. This power is immediately used in making the *n*'s. Before the pupil has time to lag in this application of motion, he is making a new technical exercise, thus generating more power. This he applies to letter writing, and so the process continues. It will be seen that he is constantly generating a supply of "writing power" equal to the demand of application.

2. In a similar manner alternate an exercise with *word* writing. See Fig. 42.

Fig. 42

3. Assist the pupil to practice sentence writing in the same fashion.

4. Vary this by connecting several sentences written down the page. See Fig. 43.

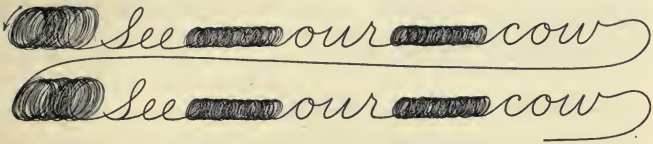


Fig. 43

Application of spacing plan across the entire width of the paper for words of two letters

This is a thoroughly practical scheme, which can be adapted to a wide range of applications. It is so simple that it can be introduced in any grade where applied movement is taught.

1. Train the pupils in the lateral-movement exercise across the entire width of the paper. See Fig. 26, page 84.

2. When all the children can do that, ask them to modify the exercise by making one downstroke in the middle of the

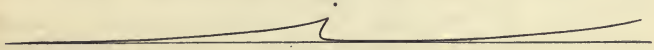


Fig. 44

paper. In this way they will form one *i* while the hand moves across the page. See Fig. 44.

3. Then ask the class to make two *i*'s as the hand moves across the paper. The two downstrokes of these letters should

trisect its entire width. It may be helpful at first for the pupil to place two trisecting dots on the line above that on which he is to write, showing where the downstrokes of the *i*'s are to be made.

4. When all can do this work, ask them to substitute an *n* for the second of the *i*'s called for in paragraph 3. Thus will they write the word "in," placing the *i* under the first *i* of the exercise and the *n* under the second *i*. The word will be written across the paper while moving the hand, as in the two-letter *i* exercise; hence movement is applied to word writing. See Fig. 45.

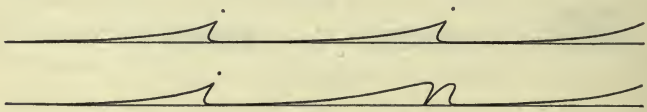


Fig. 45

Arrange for the pupil to write other words of two letters according to the plan outlined in paragraph 4. For example, change the *i* of the word "in" to an *o*, writing "on." Then reverse these letters and write "no." See Fig. 46.

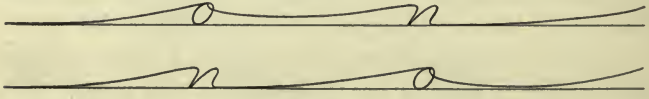


Fig. 46

5. When the pupil's eye is adjusted and his hand trained to write a two-letter word across the paper, ask him to turn the paper to the clean side and place it in the writing position. Do not allow him to make the two *i*'s trisect the line. Ask him to write the words called for in paragraphs 3 and 4 from his thought of those spacing-off letters and

the automatic word movement which his hand has acquired from their use.

NOTE 1. During the first work of applied movement use words containing only unit letters, after which use the loops and capitals.

NOTE 2. The question may be asked, "Why write a word of but two letters?" It has been demonstrated that when the pupil begins the work of applied movement, it is necessary to write a word having few letters, and those openly spaced. Just as soon, however, as he understands the requirements of this work and can write a word of *two* letters as called for above, he must be trained to write longer words, the letters of which are more closely spaced. To make such work gradually progressive, one letter at a time is added to each new exercise, which is written across the entire width of the paper. This process will now be developed.

Application of the spacing plan across the entire width of the paper for words of three letters

1. Ask the pupil to equally divide a line of the paper by placing three dots at necessary intervals. Under these dots write an exercise of three *i*'s or *e*'s across the paper. Be sure that every child makes his first, second, and third letters in regular order under the corresponding dot. Make each letter no larger than *ordinary* writing. Practice until this can be done correctly and rapidly, even should it require several writing lessons to accomplish these results.

2. Under such an exercise ask the pupil to write some word of three unit letters; for example, the word "ice." Place the first letter of the word under the first letter of the exercise, the second and third under corresponding exercise letters. See Fig. 47.

NOTE 1. While studying applied movement by the spacing plan, it may be found helpful to begin by developing the word according to the *tracing process*. For example, this word "ice" may first be studied

according to the instruction given for the word "see" on page 100. In this case the letters of "ice" should be at least one half an inch high and placed under those of the exercise given in paragraph 1,

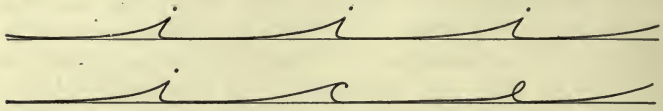


Fig. 47

page 105. Now let the pupil trace. After that, develop immediately the instructions for writing "ice" given in paragraphs 1 and 2 above.

Note 2. In all the applied-movement practice remind the pupil continually that legibility must be maintained as facility of execution increases. Keep the standard high. Rapidity in writing, without legibility, is mere scribbling. Neither can be sacrificed at the expense of the other. A well-balanced penmanship demands equal proficiency in each of these essentials.

3. Continue this plan, using words in consecutive order which contain four, five, six, seven, and eight unit letters, according to the grade in which the plan is taught.

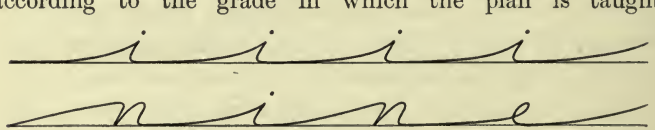


Fig. 48

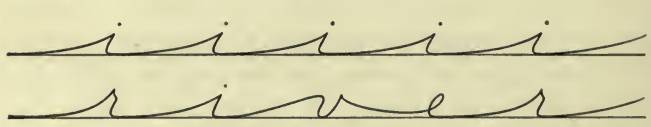


Fig. 49

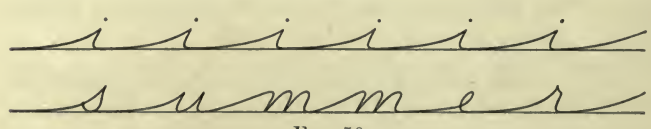


Fig. 50

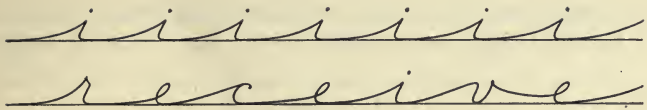


Fig. 51

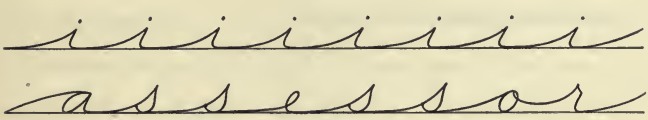


Fig. 52

Each word must be written across the entire width of the paper. Keep the following directions constantly in mind.

Five directions for teaching applied movement

1. Be sure that the pupil has the correct mental concept of the word to be written.

2. Be sure that he understands the mechanics of movement required to write that particular concept.

3. Be sure that he practices these mechanics of movement until they become automatic.

4. Be sure that every word is first written on one side of the paper under a spacing-off exercise of an equal number of *i*'s or *e*'s. After this, from his thought of such an exercise, have the pupil write the same word on the clean side of the paper.

5. Be sure that the pupil is equally proficient in legibility and in rapidity of execution.

The spacing plan for word writing across one half the width of paper

When the pupil is able to write words from two to eight letters in length across his paper, according to the progressive plan outlined above, the same scheme should be

developed across *one half* the width of the page. Ask him to bisect his paper by drawing one line down its entire length.

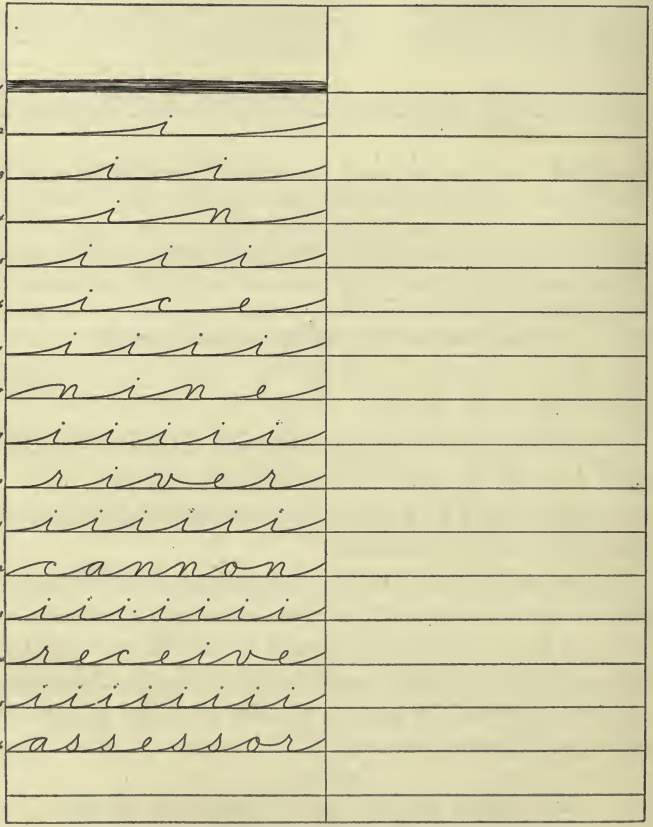


Fig. 53

Then train him to move his hand in a lateral-slide exercise across one half of his paper. Next have him make one *i*

while he moves his hand, then two *i*'s and a word of two letters, then three *i*'s and words of three letters, and so on

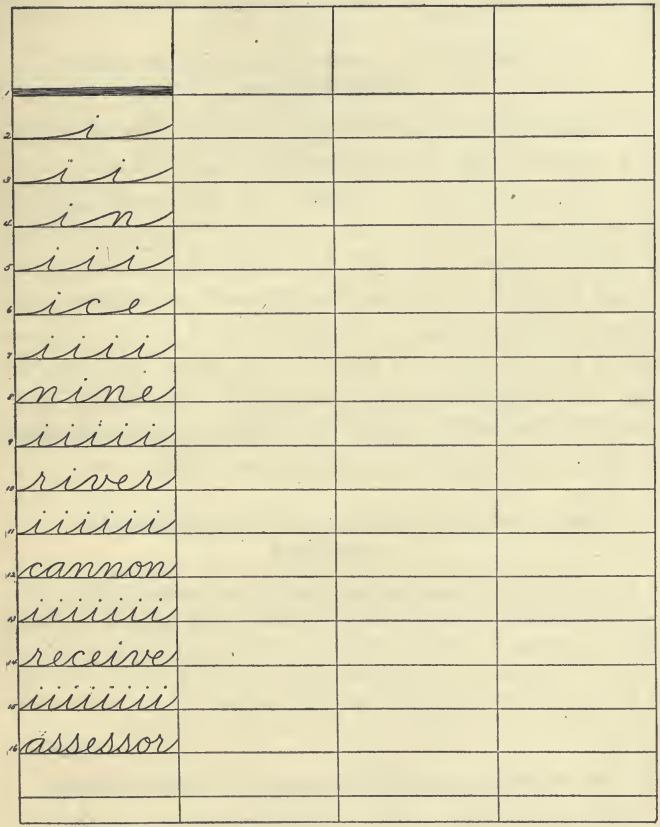


Fig. 54

until eight *i*'s and words of that length (according to the grade being taught) are written across one half the paper.

The reason for doing this work in that width is that it assists the child to *lessen gradually* the spacing between letters as he continues to apply movement to word writing.

The spacing plan for word writing across one quarter the width of paper

To lessen still further the space between any two letters of a word, ask the pupil to draw on his paper three downward lines, which will divide it into four equal parts. In one of these sections so made train him to the lateral slide across that space; then have him make one *i* in it, then two *i*'s and words of two letters, then three *i*'s and words of three letters. Continue until a column of that width has been spaced successively with four, five, six, seven, and eight letters, and with words of equal length. As to how many letters a word shall contain, the teacher must be governed by the grade of school in which the plan is used. See Fig. 54.

Deficient pupils should first practice applied movement on the board

NOTE. If it is difficult for any pupil to understand applied movement, it will be exceedingly helpful to mark off a space on the blackboard to represent a sheet of paper. In this space the pupil should develop every step of the spacing plan before he attempts such work on his paper. The lateral sweep which he uses at the board assists him to gain greater freedom when he writes at his desk.

The spacing plan applied to movement in sentence writing

The pupil is now ready to apply movement to sentence writing. To assist in this process use the spacing plan.

1. Ask the pupil to divide his paper into three equal parts by drawing two lines connecting trisecting dots at the top and the bottom of the page. See Fig. 55.

2. Begin with sentences of three words, each word containing two letters. To facilitate the application of movement,

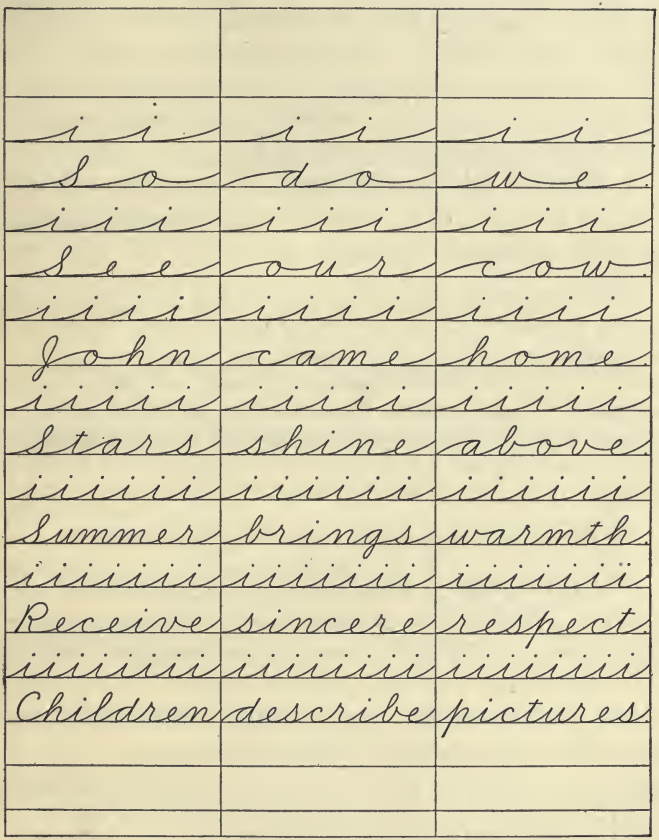


FIG. 55

have him space off each column with two *i*'s or *e*'s, so placing these that in each instance they will divide the column into equal parts.

3. Develop the sentence, "So do we." Under the first *i* in the first column have the pupil write the *S*; and under the second, *o*. Under the first *i* in the second column have him write *d*; and under the second, *o*. Under the first *i* in the third column have him write *w*; and under the second, *e*. Thus the pupil will write a sentence of six letters across the paper, but the spacing will be very open.

4. Continue this practice until the mechanics of motion required to write this sentence becomes automatic. Maintain legibility as rapidity increases.

NOTE. When the pupil's eye is adjusted and his hand trained to write a sentence as above, ask him to turn his paper to the clean side and place it in the writing position. Do not allow him either to trisect it or to write the six spacing-off letters. Ask him, however, to write the same sentence, from his thought of the mechanical process, on the first side of his paper, and with the automatic movement he acquired from its use.

Sentences of three words, each containing three letters

5. Ask the pupil to trisect his paper as described in paragraph 1. After this let him space off each column evenly with three *i*'s. Have him develop the sentence, "See our cow," by writing one word in each column across the page and by placing the first, second, and third letters of the word under the corresponding letters of the exercise. Thus he will write across the page a sentence of nine letters, which will be more closely spaced than the sentence of six letters which he wrote under paragraph 3.

6. When this is done according to the instruction given in paragraph 4, use in this connection the suggestion given in the note under that paragraph.

7. Then have the pupil write sentences containing three words in three columns on the paper, each word progressively containing four, five, six, seven, and eight letters. In so doing he will write twelve, fifteen, eighteen, twenty-one, up to twenty-four letters across the page. It will be seen that as the number of letters increases, the spacing between any two of them decreases. Thus the pupil's hand becomes adjusted to the usual spacing of script, and he maintains applied movement as he writes. See Fig. 55.

8. Read again the five important directions given on pages 85 and 107, and apply them to sentence writing.

Applied-movement sentence writing without mechanical aid

NOTE. It may safely be assumed that the pupil's eye is adjusted and his hand trained to write a sentence containing a certain number of letters. On the *clean* side of his paper have him write sentences of an equal number of letters. This should be done without the mechanical aids of the three columns or the spacing *i* or *e* exercise. For example, perhaps the sentence "Haste makes waste" has been developed according to the instruction in paragraph 5, page 112, modified to space with five letters instead of three. Then ask the pupil to turn to the second side of his paper and write this sentence from the automatic motion gained from his practice on the first side of the paper. Follow this immediately with other sentences of equal length; as,

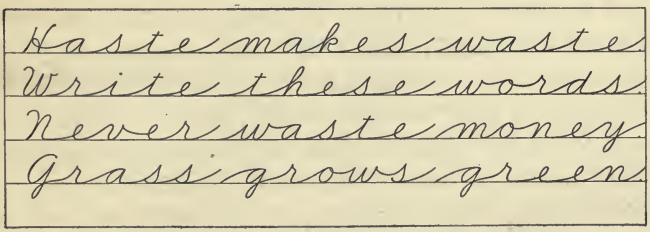


FIG. 56

Such should be the final step in applied movement sentence writing, regardless of how many letters the copy may contain. For this purpose the teacher must have at her command several other sentences equal in length to the one taught and developed.

The spacing plan applied to movement in writing sentences containing words of unequal length

It is possible that some person may say that the pupil would rarely have to write sentences which are constructed of three words, each having an equal number of letters. This is true, but the fact remains that if the pupil's hand can be trained to write, as above, a sentence of fifteen letters, it will be but a slight step in advance to train him to write as many other letters across the page in words of unequal length. The important things are, first, he can easily move his hand along one line of his paper; and second, he can write fifteen letters as he does so.

Application of the spacing plan to the written work of the school

1. *Geography.* Many teachers believe that it is almost impossible for pupils to use applied movement when writing the various papers of the class room. The same pupils who gain excellent results in the technical-movement practice of the writing lesson afterward lapse into a cramped-finger motion. There is no good reason why this should be so. For example, if a pupil can *write* — not "carve" — a continuous chain of twelve small *e*'s across one line of paper in a technical exercise, it is but a little step in advance for him to *write* twelve different letters under the same movement condition. Thus he might *write* the word "Pennsylvania." The

e's would be slightly easier to make because of a simpler rhythmic motion, since the same letter is repeated; yet the essential movement required in writing both exercise and word is the same. In demonstrating this to the pupils, first make it clear to them by explanation, and secondly, lead them to prove it by their own work.

a. For example, ask them to make a chain of twelve *e*'s, equidistant, across one line of paper. Under these, letter for

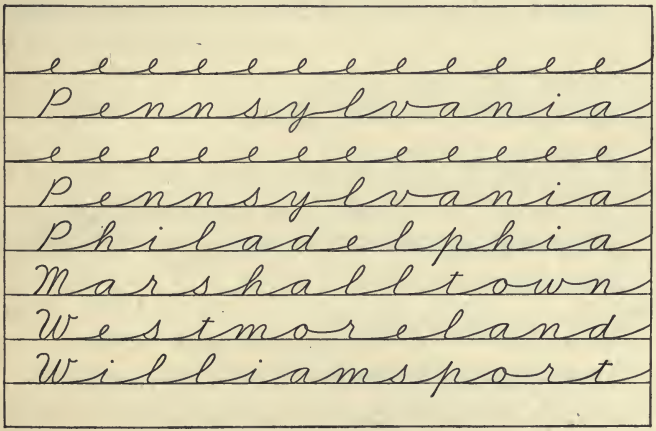


Fig. 57

letter, ask them to write "Pennsylvania," using the same gliding motion that they used in the exercise. On the next line have them write the *e* exercise, and underneath that the word. See plan of alternating exercise and word writing on page 102; also page 103, paragraph 2. See also Fig. 57.

b. After the pupil's eye is adjusted and his hand trained to the above spacing and word, give him practice immediately in writing other *geographical* words of twelve letters.

c. Next ask him to write all these words on the clean side of his paper, without first spacing with the *e* exercise. He should, however, write one word to a line, having the same space between any two letters of each word that he had on the first side of the paper.

Lessening the lateral spacing of these words

a. Direct the pupil to space off *one half* or *one third* of the width of the paper (as the teacher may wish) with twelve

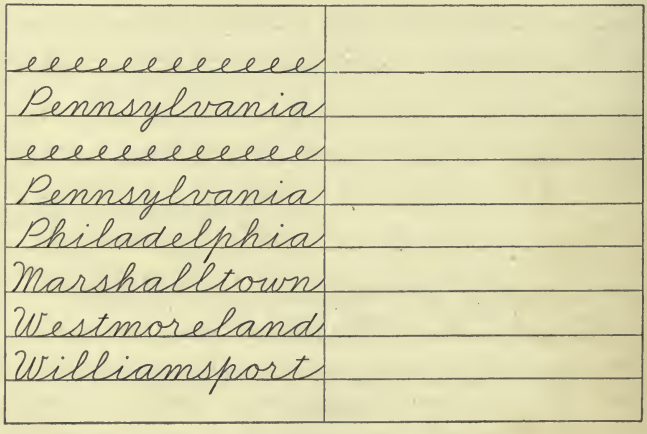


FIG. 58

e's. Under these ask him to write "Pennsylvania." This is for the purpose of *lessening* the distance between the letters, making it more like the usual spacing of the word.

b. See that the pupil maintains good legibility and movement. See second note on page 87, also note on page 106.

c. For application, ask the pupil to turn to the clean side of his paper, and, without the aid of the spacing-letter

exercise, to write the word in one half or one third of the width of the paper.

d. At first this work should be done during the writing lesson. When such instruction is given, select for practice words the names of cities, counties, states, rivers, lakes, and mountains. Use any topic word connected with the present study of geography. First let the pupil space for it with an equal number of letters, following the suggestions given above; afterward have him write it for application without the aid of any mechanical exercise.

e. Next weave these words into sentences, and let the pupil practice them under the applied-movement plan during the writing hour.

The result will be that when he comes to write a paper on geography the text will be of similar character and the penmanship the same as that which he has practiced during the writing lesson. If he can do it in one instance, he can in the other. Why not? Continued practice of this character will soon become an automatic process.

2. *History.* In a similar manner give practice in historical copies. To give interest to this work, select topics about which the class is at present studying. For example, make short sentences about the abolition of slavery, as, "Slavery was abolished in 1865." This sentence is composed of twenty-five letters and figures, and the period. There are also four open spaces between the words. Conduct the practice in writing this sentence according to the following plan:

a. Ask the pupil to trisect his paper as in paragraph 1, page 110.

b. Ask him to write ten *i*'s or *e*'s across each column.

c. Under the first seven of these, letter for letter, have him write the word "Slavery." Skip the eighth letter, thus leaving an open space between the first and second words. Under the next three letters write "was." Skip the next, which is the twelfth letter, for the space between the second and third words. Under the next nine letters write the word "abolished." Skip the twenty-second letter for the space between the third and fourth words. Under the next two letters write the word "in." Skip the twenty-fifth letter for the space between the fourth word and the date. Under the next four letters write the figures "1865." Under the last *i* or *e* make the period. See Fig. 59.

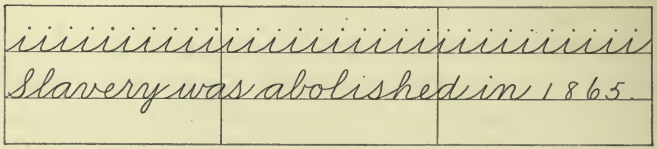


FIG. 59

d. After the pupil's eye is adjusted and his hand trained to write this sentence across the page, using the mechanics above described, ask him to turn his paper to the clean side and write it without the assistance of a spacing-letter exercise, directing him to work from his thought of that device. Continue such practice until he can write this sentence automatically, with great legibility and facility of motion. See second note on page 87, also note on page 106.

e. If during the writing lesson the pupil thus applies movement to writing historical data and masters such application as he should, he can do the same work when asked to write a paper on that subject during the history lesson. Why not?

NOTE. If the teacher thinks that writing thirty letters on one line across the page causes unsatisfactory lateral spacing, she should have them written across such a part of the width of the paper as she wishes to produce the desired distance between any two letters of either exercise or word.

3. *Spelling.* It is assumed that the pupils write their spelling words in a column. If the sentence method is used, previous instruction for applied movement in sentence writing should be followed.

a. Ask the pupil to space the top line of the column in which he is to write his spelling with as many *i*'s as there are letters in the longest word of the lesson. For example, suppose that word has eight letters.

b. If the first word which the teacher gives contains but five letters, the pupil should write these, letter for letter, under the first five *i*'s of the exercise. If the next word contains three letters, he should write these, letter for letter, under the first three immediately above. If the next word contains six letters, he should write these, letter for letter, as far as the first six exercise letters extend across the paper. If the next word has eight letters, he should write these, letter for letter, so that the letters of the word will be spaced like those of the *i* exercise.

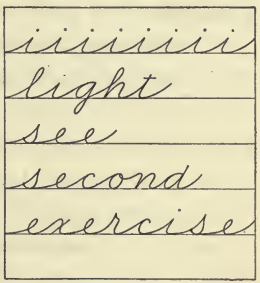


FIG. 60

If this plan is followed, three things will be observed: first, that the pupil will know just where any given letter of every word is to be placed, that is, the first, second, third, etc., under corresponding letters of the exercise; second, that

knowing the location of every letter will help him move his hand while writing each word; and third, that almost the same lateral spacing will be between two letters of any word written.

For a practical application of this mechanical scheme ask the pupil to write the same words in a spelling column of equal width. Do not allow him to write the spacing exercise on the first line, but compel him to work from his thought of it. Thus will the mechanical help him to acquire the automatic movement of the arm.

If such a drill is carried forward during the writing lesson and completely mastered, there is no reason why the pupil will not use applied movement from habit when writing the regular spelling lesson in the class room.

4. *Making figures.* In this connection attention should be called to *rapid* figure practice. Commercial colleges devote considerable time to such an exercise, and it should be emphasized in the applied-movement work of the public schools.

a. Ask the pupil to make a chain of ten *i*'s across the paper. These letters should be equidistant. Under these have him write the ten numerals, placing 1 under the first, 4 under the fourth, 7 under the seventh, and 0 under the tenth *i*. In this manner have him fill each line on the paper with figures.

b. In such practice four things are studied:

1. Excellence of figure formation;
2. Smoothness of motion;
3. Speed of execution;
4. Alignment of figures in columns.

This last is exceedingly important in the figure-column work of the counting room. It also means much in schoolroom computations. It is both restful and educational to the pupils

if such study is occasionally arranged in place of any other lesson in penmanship. Diversity of work, when not carried to the extreme, with but superficial training of the pupil, is good.

Counting

All music — band, orchestra, or chorus — has movement. So has writing. It is for the teacher to help the pupil to acquire this rhythmic motion. Counting has reference to such assistance as she may be able to render him in this particular. That counting can be used to great advantage, or abused to the detriment of the pupil's education, is obvious. The author once observed a lesson given in the simple lateral-sweep exercise across the page. Between the teacher's count of "one" (intended for the pupils to move the hand from the left to the right side of the paper) and "two" (for the return motion) the author leisurely counted to himself forty-five. This slow movement kept the class from acquiring the very freedom for which they were drilling. The same exercise has been counted for by the teacher at a rate of speed so high that it could not be attained by the pupils.

Speed used in counting. The speed which the teacher sets for her class should be governed by two things:

1. By the amount of work involved in the exercise.
2. By the length of time the exercise has been practiced.

a. These will determine how well acquainted the pupil is with the exercise.

b. It should very largely determine his proficiency in executing it.

Every member of the class must work in the rhythmic motion represented by the teacher's count, as perfectly as

if she were conducting the same class in a singing lesson. Hence she must use the most acute judgment in determining the ability of her pupils to follow her commands, which should not only guide but control the movement of every pen in the class. The teacher should remember that a *gradual increase* in speed is desirable, but that it must always be accompanied by smoothness of execution and constant improvement in legibility. These results require both patience and time.

How to count. The proper way to count is to call every letter in the word to be written. In so doing two results are accomplished: first, the pupil is trained in a smooth writing motion; second, sufficient time will be allowed for the making of every letter. Suppose the word "dime" is to be counted. It will require more time to write *d* than to write *i*, and *m* will take more time than any other letter in the word. The teacher should hold her hand up before the children and move it for writing these letters and their connecting curves just as she would were she actually writing them on paper. In such practice she should call the letters, giving the necessary length of time to the formation of each one. Then *pupils and teacher* should call every letter of the word as the teacher's upheld hand makes the motion to write it. This naming of the letters in unison is of inestimable help to the class in understanding and acquiring the automatic movement which they will finally use in writing the word.

Next ask the pupils to take their pens and write this word across one third of their paper, naming each letter aloud as they do so.

For further application of the above instruction ask the class to write this word three times. While doing so both

teacher and pupils should call the letters *silently* with the same speed and rhythm they used in concert work. First, give the command, "Write." After the first word is written the teacher and pupils should say aloud "One," during which count the hands should move from the final point of the first word back to the left, to the beginning of the second word. When this is written, say aloud "One," while the hands move from the final point of the second word back to the beginning of the third word. When that is written, teacher and pupils should say "Stop" on the terminating stroke of the third word. Since both teacher and pupil have maintained the same rhythmic count *silently* which they simultaneously gave aloud when they wrote, and since during the count of "one" every hand moved to the beginning of a new word, there is no reason why every hand should not stop at the teacher's final command to do so.

Write six or twelve words following this silent plan for work. Thus will the pupils gain the automatic motion required to write any word which they may so practice.

This same plan may be extended to writing short sentences across the paper. It is one of the simplest and best methods to follow in helping pupils to acquire applied movement in written work. Because of the detailed instruction above given it is unnecessary to develop a lesson on sentence writing according to this plan.

NOTE. This counting exercise is no different in principle from a piano lesson. In that case, when the teacher gives a new exercise for the inexperienced pupil, she first counts the time aloud. Then she asks him to count aloud (perhaps with her) as he plays. Finally the pupil counts to himself as he practices, and comes to play the exercise *automatically*.

The question may be asked, "Why not count for every upstroke and every downstroke of the letter?" It is better not to do so for three reasons. First, it is too mechanical. The pupils will maintain the movement as long as such support is given by the teacher. When this ceases, their application of movement stops. Second, if a count is given for every line of the letter, the pupil will often pause at the top and at the bottom of it. This keeps the child from acquiring *smoothness* of execution. Third, it is an unnecessary tax on the teacher's throat. It is better to conserve her energy and distribute it more generally throughout the writing lesson.

Suggestions have been given for counting letters and words. In counting for an elliptical exercise, at first count "One" for each entire revolution of the hand. If an exercise requiring a dozen revolutions is given for practice, instead of counting from one to twelve in separate counts, say "One, two, three, four," and repeat this twice. Thus twelve will be counted in three fours, which are easier to speak than so many different numbers.

The author once listened to a teacher who was counting for an elliptical exercise. Her method was to accelerate the count, which, by the way, was carried to twenty. The rapidity with which she spoke the highest numbers may better be imagined than described. The author suggested that it would be easier for her to count four five times, than to speak twenty different numbers so rapidly. She turned, looked him squarely in the eye, and with considerable emphasis said, "I think I can talk about as fast as any one." The author tacitly agreed that this statement was correct (as doubtless a good many young men had previously decided), and no argument followed.

After the class has become acquainted with this exercise the teacher should count aloud "one" for every *four* revolutions of the hand. This is not only easier for the teacher's throat, but it is a positive help to the pupils. They depend upon themselves for the other three revolutions, which they, as well as the teacher, count silently.

When to count. In the first place it is necessary to count for every new technical exercise, word, or sentence, because the pupils must get the rhythmic motion and speed of execution which the teacher wishes them to use in the particular thing studied. Secondly, if at any time during the silent count the pupils lag in their work, the teacher must count aloud with them in order to bring them to her speed of writing, just as she would either count or beat time if the class should lag in a singing lesson.

Speed work

There is scarcely anything in the work of developing a good handwriting which calls for such nice judgment on the part of the instructor as teaching speed work. This includes three things: first, good letter formation; second, applied movement; and third, rapidity of execution. The teacher must give the poise of balance to this combination which represents the acme of teaching effort, and which should produce ideal writing for its result.

1. Assuming that the pupils can write sentences by using applied movement, the first thing for the teacher to do is to get every member of the class to write with the same speed. It is better to make the speed moderate at first, — perhaps on the average one letter a second, or sixty letters per minute.

NOTE. In deciding what speed she should adopt as the standard advised in paragraph 1, the teacher must be governed by three considerations : first, that the pupil is actually using applied movement ; second, that he writes easily and smoothly; and third, that he is forming his letters with great legibility. If sixty letters per minute proves too rapid for this combination, she should begin with forty-five letters to the minute.

2. To help the pupils to acquire this uniform speed the teacher must count (see pages 121–125), and while doing so she should keep her eye on the second hand of her watch, which should govern her counting and control the pupil's writing motion.

3. Sentences should be used for copies. At first these would better be short, containing not over fifteen letters. As has been shown (pages 111–114), it is not a difficult matter to construct sentences of almost any desired length. Should one contain fifteen letters, this might be written four times in one minute, if a speed of sixty letters is desired. Using sentences for practice will cause many *different letters* to be written.

NOTE. It is not an accurate test of speed to allow the pupils to study some easy word, as "nine," which requires a simple rhythmic motion to write, and after long practice to give the class two minutes to write (more often scribble) this word as many times as they can, and, when these copies are written, to divide the total number by two and then claim that the pupils are able to write so many words per minute. The basis on which speed writing should be computed ought to include the writing of many different letters, as well as marked legibility, with but little preliminary practice.

4. The teacher should call the letters in any sentence several times in order that the pupils may (1) understand what speed she desires, and (2) work together as a class. After such work she should allow them to write for two or

three minutes, depending entirely upon themselves for their speed of execution.

NOTE. When left to themselves to write, it will doubtless be noticed that some pupils will write a little more rapidly than others. This is a part of their individuality and is by no means objectionable, providing the legibility of the script is not impaired. In one town where the author was supervisor of penmanship there was a ninth grade numbering more than fifty pupils. The average speed of this class in writing was a little over one hundred and twenty-five letters per minute. Not one of these scholars wrote less than one hundred letters a minute, and the legibility of the script of the entire class was highly satisfactory.

This is a vastly different process from that mentioned in the note next above.

5. In the preliminary practice the teacher should accelerate her call of the letters so gradually that the change will be almost imperceptible to the pupils. With this help they will find no difficulty in acquiring any slight increase in speed without impairing the legibility of their script.

6. If a teacher can succeed in training her pupils to increase their speed of execution *five letters* a minute per month, while maintaining equal *legibility*, she is doing all that could reasonably be asked in this particular. In such a case, at the end of a school year of ten months her pupils will write fifty letters per minute faster than at the beginning of the year.

CHAPTER V

COURSE OF STUDY

It would be exceedingly difficult to specify exactly what and how much to teach in penmanship in any one grade. In the first place, the weekly time allowance for this study varies greatly in different cities and towns, and secondly, the number of grades which study the subject differs in many places. This matter is often determined by the age of the pupil when he first enters school. Recently some cities have raised the age limit to five and one-half years, while others do not admit a child until he is six. In some places, therefore, writing is studied in seven grades, in others in eight grades, and in yet others it is studied during the entire nine years of grade work. The third reason why it would be difficult to state exactly the work of studying penmanship in any grade is that the ability of the class must be considered. It is not always possible for a teacher to do this year with her class what she did last year, or what she may be able to accomplish with her next year's pupils. In teaching penmanship thorough work is much more satisfactory than superficially rushing through a lot of prescribed directions which a course of study may stipulate.

The suggestions here given may well be used as a basis in outlining the work of any particular grade, subject, of course, to such modifications as local conditions may necessitate.

First year's work

Read "Supervision of first-grade work," page 51, also "Instruction should be modified for first and second grades," page 46.

Teach positions at board and desk before letter formation

1. Before the child makes a mark on the board teach him how to stand there properly to write. To assist in this particular, the teacher should first mark off a section in which each child is to work. This should be done with *oblique* lines (representing the slant of the script to be taught) and not with vertical lines. See Fig. 61.

2. Place a pupil at each section. Stand him with his left side turned toward the board.

3. Make some dots at the top of the board. Teach him to look up between the two oblique lines of his section to the first dot at the left side of it. This represents his line of vision when writing on the board. Then ask him to hold his right hand up on the board toward the dot as high as he can reach, and move it obliquely downward toward his eyes. This practice will train his hand to make the downstrokes of the letters on the proper slant. Have him step to the right so that his body will be in the same relation to the second dot that it was to the first dot. Ask him to continue the practice called for in this paragraph. Then have him move to the third dot and repeat the work.

4. Ask him to take a piece of crayon and make long, straight, oblique lines under the dots, using the motion acquired in paragraph 3. Following this he should make letters, using these oblique lines for their downstrokes. See Fig. 61.

Fig. 61 represents first-grade pupils writing at the board. The lighter oblique lines form the section in which the pupil writes. The

Fig. 61

white lines on the floor furnish another instance of the deception of the camera. They should not be drawn so near a right angle to the

wall but should form an angle of 25°–30° with it, depending on the slant of script. When such an oblique crayon line is drawn on the floor ask the pupil to stand with his toes touching it. In so doing he will stand with his left side turned toward the board, which will place him in the proper position to look up and down between the oblique column lines as well as in the correct position to write slant script.

5. Next teach him as much about the *desk* positions as he has been told about the board positions.

6. Teach him to sit properly at his desk. Follow instructions given on pages 3 and 4.

7. Teach him the correct position of the paper on the desk. Make special use of the instructions on page 31, "Angle to keep paper in proper position"; also last part of "How to record the line of vision," page 27. To make this arrow still more effective make a white crayon dot on the desk just above the pencil ledge. Tell the pupil to point the arrow toward this dot while he is writing on the paper.

8. Teach the upright position of the hand in pencil holding. Follow the instructions beginning on page 11 and completed on pages 12 and 13.

9. Modify these suggestions, however, by eliminating the written work called for in paragraphs *c* and *d*, page 11 (for the child cannot yet form letters), and apply them to making horizontal line slides across the paper.

If the teacher wishes, the pupil may at first hold a ruler while practicing for the upright position of the hand. See page 11. A word is necessary regarding the kind of pencil which a first-grade pupil should use. This is much larger in circumference than the ordinary pencil, and has a soft crayon lead. It is usually known by a stock number. All pencil makers have this kind, and undoubtedly would furnish samples to any school superintendent.

Fig. 2, page 8, shows correct penholding as seen from the right side of the hand. Fig. 3, page 9, illustrates the top and left side of the hand, while Fig. 62 gives a front view of it. It also gives a good idea of the correct body position and of the correct position of the

Fig. 62

paper for writing script of 25° slant; shows how the paper is held by the tips of the fingers of the left hand; how the ruler is placed for the line of vision; that the boy is looking along that line and that the downstrokes would be made parallel to this ruler, hence he would write slant script. In order to delineate clearly so

many details the camera was placed a little to the right, which made the top of the pencil point toward the shoulder. The top of this pencil actually pointed as is shown in Fig. 3, page 9. See a similar explanation in description of Fig. 2, page 9.

10. Next teach the axis line of the script on paper. Follow instructions given on page 30, paragraphs 1–5; also paragraph 6, page 31. During this practice emphasize the *upright position* of the hand, as in making the lateral slides across the paper. See paragraph 9, page 131.

Now the pupil should know (*a*) how to stand at the blackboard; (*b*) what his line of vision is while writing there; (*c*) how to make oblique straight lines to represent the slant of the script; and (*d*) how to make some letters having these oblique lines for their downstrokes. He should also understand (*a*) how to sit at his desk while writing; (*b*) how to place his paper on the desk; (*c*) how to move his arm across the paper and back again, keeping his hand upright while he does so; and (*d*) how to keep his hand upright and make on his paper straight oblique lines to represent the slant of the script. He is now doing parallel work on blackboard and paper.

11. Give each pupil a piece of unruled manila number paper. This is commonly cut 6 × 9 inches in size. Place the paper with its length parallel to the front edge of the desk and teach him to *fold* it three times. Do not *crease* it. Let him use these folds as lines on which to write. Give him sufficient assistance to enable him to do this work well.

12. For the first part of the next lesson send the pupils to the board to make some axis or slant lines. These should be at least three or four inches long. Repeat as much of the instruction given in paragraph 3, page 129, as may be necessary.

NOTE. During the early part of the first year every writing lesson should begin on the blackboard. Following this, immediate application should be made by the pupil on unruled paper at his desk. Such application must be made after a few minutes' practice at the board, for two reasons: first, the teacher's instruction is fresh in the pupil's mind, and to some extent fastened there by his blackboard practice, and hence he will receive the greatest benefit from its use; second, writing on the board is a different process (the arm swings from the shoulder) from writing at the desk (where the arm rests on the muscle in front of the elbow), and the pupil should accustom himself to the desk conditions. Such alternation of board and paper practice is highly beneficial.

Teaching the script

Read notes 1–4, page 38; and note 5, page 39.

1. When the axis lines are made well, assist the pupils to convert them into *i*'s by adding a final curve at the bottom and placing a dot over the top of each one.

2. After a few moments of such practice send the pupils to their desks. Repeat the board lesson on paper. First, ask them to make axis or slant lines. These should be at least half an inch apart, and the base of any line should not quite touch the "fold" in the paper which they use as a writing line.

3. When these lines are made well, assist the pupils to convert them into *i*'s by adding a final curve at the bottom (which should rest on the fold) and placing a dot over the top of each slant line.

4. For the next lesson give practice in making *i* as a whole form without developing it as specified above. These letters are first to be made on the board, and then on paper. On paper they must be made so large that the pupil cannot write them with his fingers. This will *induce* his forearm to

move when he forms them. See page 81. For the present omit teaching the *u* and *w*. No word can be made from the *i*, *u*, and *w* alone. Next teach *n*. Study this letter as a whole form.

5. The teacher should make one *n* in each oblique section on the board, as a copy for the pupils. This should be at least three inches high and of proportionate width.

6. When the pupils take their places to write, have them stand a little way from the board, with the left side turned toward it. Ask them to lift the right arm, holding the crayon in the hand, and to make motions to trace the teacher's *n* for their copy.

7. After the tracing ask them to *write n* on the board, using the same motion which they used in tracing.

8. After a little practice on the board ask the pupils to go to their desks and make *n*'s on the unruled manila paper. They should use the folds for writing lines. For the first paper practice the teacher should write one letter as a copy for each pupil. Make these letters large, to induce forearm movement. The first unit letters should be one inch high and of proportionate width.

9. For the next lesson develop the word "in." Follow the plan of teaching first on the board and then on paper at the desk. Make large letters on paper and help the child to move his forearm when writing.

10. For the next lesson teach *o*.

11. For the next lesson teach the word "no."

12. For the next lesson reverse these letters and teach "on."

13. For the next lesson join these two words, thus writing "noon."

14. For the next lesson develop *e* from *o*.

15. For the next lesson add *e* to the word "on," thus writing "one." Next write "none" and "nine."

Following this detailed work, teach one new letter at a time, and then use it in writing words. In so doing remember three suggestions:

1. Use as the base of each new word the whole or a part of a word previously written. With this use the last letter studied.

2. Construct short words.

3. See that each word is perfectly understood by the young pupil.

Develop the suggestions given below:

Teach *c* and "ice," "mice," "once."

Teach *m* and "me," "men," "mine," "mice," "come," "moo," "moon."

Teach *w* and "we," "new," "mew," "now," "cow," "own."

Teach *t* and "it," "mit," "net," "met," "wet," "not," "tin," "time," "tie," "to," "toe," "ten," "tent," "cent," "went."

Teach *s* and "is," "soon," "see," "sun," "seem," "set," "some," "sown," "snow," "sent," "sew."

Teach *a* and "an," "can," "man," "am," "at," "cat," "mat," "sat," "saw," "as," "was."

When these words have been taught, sentence formation is a very simple process. First teach *I*, the period, and the interrogation point. Select from the above list such words as may be desired for sentences. The pupils can write every one, and constructing sentences is a matter of arrangement and review of these words; for example:

I see a cow. I can come soon.
I own a tent. Is it a new tie?
I see some snow. I see a nice man.

It is a cat.
It can mew.
It was sent to me.
It is not noon.
Is it wet?
It is a new moon.
I saw it set.
I see ten toes.
I saw a new cent.
It is a net.
I met a man.
It is a tin can.
It is time to sew.
I saw nine mice.
I sat on a mat.
It is mine.

Thus it will be seen that as a result of teaching ten different small letters, one capital, and a little punctuation, a variety of words and sentences can be written.

If it is desired to duplicate a list of words which the pupil is learning in his primer or reader, in a similar manner a few necessary letters should be taught and combined into the same words and sentences which the child is reading (see page 38, note 2. Or one may begin by teaching the word or sentence as an expression of thought, and afterward teaching the most difficult letters contained in it (see page 38, paragraph 4.

Thus the work of teaching writing in the first grade should be begun. As the year advances other capitals and small letters must be taught and words and sentences written. The script may also be somewhat reduced in height. The teacher should assist the pupil to move his forearm as he writes (see paragraph 9, page 143). About the middle of this year the single-line ruled paper (with a *wide* space between any two lines) should be introduced and used in all written work. The unit letters should be one third as high as this space, and the length of other letters should be made accordingly.

If any lesson proves difficult for the children to master on this kind of ruled paper, the teacher should give it first on

the blackboard and on unruled paper, and then on the single-line ruled paper.

At the end of the first year's work the pupil should be able

1. To stand properly at the board and write on the correct slant.
2. To sit properly at his desk.
3. To place the paper on the desk properly.
4. To hold the hand upright while writing, as this particular detail of correct penholding has been acquired.
5. To write letters and words with an induced movement of the forearm.
6. To write legibly on wide-spaced, single-lined paper.
7. To make the script a little smaller than the unit letters which he made the first of this year.

Second year's work

1. The first month of the second year should be spent in reviewing the work of the first year. The pupils' mental concepts of the letter forms are imperfect and need to be improved. The children also need practice for the purpose of acquiring more accurate execution. If necessary, begin the year's lessons on the board and on unruled manila paper. Soon the pupils will be able to do all their written work on single-line ruling. This ruling should have less space between any two writing lines than that which was used the first year, because the writing should be a little smaller. For height of letters follow the "Code of rules on scale of script," page 54.

NOTE. One thing which especially injures the appearance of writing in the second and third grades is the difference in space between any two base lines of the various rulings. Sometimes a

guide-line paper is used; this marks one unit of height. Then a single-line paper is given the pupil on which to write his school exercises; this demands a different size of script. To add to this evil, the ruled pad which the pupil uses causes him to write still another size, and his copy book differs from them all. The result is a constant adjustment of the pupil's handwriting to meet the requirements of these rulings. If this adjustment is not made, the script on the various papers looks worse than a misfit coat on a man's back.

This matter can be controlled to a great extent. If a guide-line paper is used, be sure that the unit space is one third of that between any two lines on the single-line paper, or the page of the copy book, which the pupil uses. The base lines of all three should exactly agree.

2. All writing on paper should be done with a pencil during the greater part of this year. This may be the one commonly used, and not the crayon pencil. The teacher should begin early enough in the year to teach work with pen and ink (see page 19) to be sure that the pupils will understand their use and be able to write neatly with ink before they enter the third grade.

3. After the first month's review it is well to use a copy book. First, teach the ruling of the book, so that the pupil will write on the proper line. Have the copies written across the page and not in columns. Keep the pupils together while they are writing any line. This should be book number one.

When the book is begun the teacher should count the number of copies in it. She should also ascertain the number of weeks remaining in the school year. Then she can easily compute the average number of copies to be written each week in order to complete the book.

4. The teacher must be especially particular about accepting written papers from the class. She should take no work which has been carelessly done. There is no better time to

impress the need of neatness and general excellence than when the pupil is young. The same is true of the care of the pen (see note at top of page 20) and the use of the blotter (see page 20).

5. During this year two more details of correct penholding should be taught, and mastered by the pupil: first, the third and fourth finger-nail rest for the hand (see page 13); and second, the elevated wrist (see page 13). It is much easier to do this work before the pupil becomes confirmed in poor penholding than it is to break that habit.

6. When writing a word for the pupil to copy, the teacher should purposely place the letters farther apart than usual. This will induce a lateral sliding movement of the hand.

The results which should be accomplished at the end of the second year's work in penmanship are:

1. He has acquired the proper body position at the board and ability to write on the correct slant.

2. He has acquired the proper body position at the desk.

3. He understands the proper paper or book position on the desk.

4. He has acquired three details of correct penholding:

(*a*) The upright position of the hand.

(*b*) The third and fourth finger-nail rest.

(*c*) The elevated wrist.

5. He has acquired a more uniform size of script because of more uniform rulings of paper, and greater ability to write well because of extended practice. The script is a little smaller than the pupil wrote last year.

6. His script is much improved because of following the models in a copy book in addition to the teacher's instruction.

7. He has mastered pen-and-ink work.

8. He has completed copy book number one.

9. He uses the forearm movement, which was induced by the size of letter and open lateral spacing between the letters in the teacher's copy.

Third year's work

The pupils' writing during the third year must pattern closely after the *style* of script they study, and should be conspicuous for its excellence. To begin with, the pupils are more mature and are capable of modifying to a great degree their mental concepts of the letters. Such change may be necessary to perfect both concept and letter. Another reason why the pupils are able to show better mechanical execution is the result of a longer period of proper training. Finally, this is the last school year which will be devoted wholly to the study of letter formation. Next year the pupils will begin the study of technical movement, and the time for the writing lesson will have to be divided between that and letter formation.

It may therefore reasonably be expected of the third-grade teacher that her instruction in penmanship shall be reflected in the general excellence of her pupils' written work.

Application of this perfection of letter formation

While the above should be true of the copy book, it must be preëminently so of the written exercise of the class room. To teach writing for the prime purpose of making a handsome page is not the correct use but is the *abuse* of a copy book. Do not make the mistake of using the entire writing period for technical teaching and practice. A part of this

time should invariably be used for the *direct application* of what is taught and practiced to the regular written exercises of the class room. This is the twofold purpose of every writing lesson.

1. To assist in such application the following plan may be used. First, write the copy on the board and teach it (see model lesson, pages 41–43). Develop this instruction slowly. Second, direct the pupil to write a few practice lines on paper. Third, have him write the copy in his copy book. These three things have helped him to visualize the model taught. Now direct the pupil to close his book. Next give each child a piece of single-line paper and ask him to write a good many lines of the copy from memory. This work must be supervised. If the teacher feels that an occasional reference to the printed copy will be helpful, it may be allowed. It will be far better, however, to have the pupil learn to visualize the copy and to work from that. Such work of application is the *most important* that can be suggested. The copy book is not the end but the means to the end, — the ability of the child to write well at all times. The last practice in any penmanship lesson should be upon paper and not in the writing book.

2. Another method of application is, after teaching a copy, to ask the pupil to write three or four lines of it as well as he possibly can. In so doing he sets his own standard of excellence. As soon as this is done, dictate some text which pertains to a school study, or ask him to write a short memory gem. This work must be written as well as the repeated copy at the top of the page.

3. Still another plan is to have the pupils understand that once in two or four weeks a set of papers representing some regular written exercise of the class room is to be put away

by the teacher. The pupils are not to be told what set it is to be. Such specimens will be preserved, and will form the basis for each scholar's mark in penmanship for the year's work. The possibility that any set may be selected for this purpose should serve to call forth the pupils' best efforts.

4. This is the grade in which to begin the definite and specific study of a letter (see note, page 46). Do not give too much instruction, however, at any one lesson.

5. During this year the plan for teaching the scale of script may be used to some extent. The pupils are old enough to begin such work, and it will be helpful in making the writing uniform in size. See instructions, pages 51–55.

6. The pupil should begin to learn the basal forms of the letters, as suggested in "Memory lesson" on page 39.

7. Add one or two details of correct penholding and have the pupil *master* them.

8. Copy book number two should be completed this year. Write this with pen and ink.

9. The teacher should make continued effort to have the pupil use the forearm movement when writing. While he holds the pen, she should cover his hand with hers and move it across the paper as he forms the letters. If the copy word is first written with open spacing (see first paragraph 6, page 140), such movement will be facilitated.

10. Have each pupil make the application of movement work just noted, without assistance from the teacher in moving his hand.

The status of the pupil in penmanship at the end of the third year in school may be expressed as follows:

1. He has acquired the proper body position at the board and the ability to write well on correct slant.

2. He has acquired the proper body position at the desk.

3. He understands the proper paper or book position on the desk.

4. The three details of correct penholding mastered by the pupil during the first and second years are *still retained,* and one or two new ones have been added this year. Those taught this year have been left for the teacher to choose.

5. There is a closer resemblance of the pupil's writing to that of the style of script taught. This is a little smaller than he wrote last year.

6. The writing is the most perfect the pupil has done during the three years of school life, and has a marked degree of excellence when compared with the work of his first two years.

7. He should *apply* this kind of script in writing classroom exercises.

8. The work of definitely and specifically teaching and studying letter forms has been begun. The teacher depends less upon the imitative faculty of the pupil to reproduce the copy in the book, and more upon his definite knowledge of letter forms.

9. The pupil has begun to learn the basal forms of letters, and, as far as these are developed, he knows the letters of any class evolved from them.

10. Copy book number two has been written in ink. The teacher has emphasized the forms of the figures in both copy book and number work.

11. The pupil uses an induced movement of the forearm when writing. This he acquired from the open lateral spacing of his copies and the help he received when the teacher moved his hand.

Fourth year's work

1. The pupil should now have a good foundation for advanced work. After the usual review, which should be carried forward the first month of every school year, he should *begin* the study of technical movement. The exercises and suggestions for teaching them are found on pages 84–96. Follow this detailed instruction carefully and develop slowly during the year as much as the pupil can profitably use.

2. There are two reasons why movement ought to be so studied at this time. First, to gain control of the forearm. If the pupil intelligently practices and masters a few basal exercises, such work will greatly assist him in this particular. Second, during this practice he will learn for what movement in writing is used. See "Movement explained," pages 77–80.

3. One half of the writing lesson is to be used for the movement study called for in paragraph 2 (see note, page 86). The other half of the lesson period is for studying letter formation and its application (see page 141, "Application of this perfection of letter formation," paragraphs 1, 2, and 3). If each lesson cannot conveniently be so divided, then two lessons in movement and three in letter formation should be given one week, while this order should be reversed the next week. Thus every two weeks five lessons would be given in each study.

4. But little application of movement should be attempted this year. It is more important to give the pupil a good foundation in technical and theoretical work, as will be proved in future years.

5. Good penholding, if not already a habit, must become so at once. There is nothing which will defeat successful

results in movement practice to a greater extent than poor penholding. If a pupil has attended school where penholding has been systematically taught for three years, there is no reason why the fourth year should not see it perfected.

6. During the initial work of teaching movement, if it is difficult for any pupil to follow the teacher's directions on paper, she should make a column on the board by drawing oblique lines (see page 129, paragraph 1). She should direct the pupil to carry forward his first movement practice within this column, and then to make immediate application on paper. In this transition she must not fail to show him the difference between the whole arm movement at the board and the forearm movement at the desk.

7. The copy book to be written this year is number three. When this is begun, the teacher should compute the average number of pages to be written each week. In doing so she must not forget that one half of each lesson is to be movement work.

NOTE. For the benefit of a rural teacher, or one who has an ungraded class, the following suggestion is given regarding what copy book should be used.

If there are four grades in one room, use one *average* number of a book in which all can write. If there are eight grades, divide these into two classes and use one book for each class. Thus will the teacher be able to concentrate her efforts in teaching and to do more individual work.

If necessary, in an eighth-grade room, give writing lessons to these two classes on alternating days; or, select the same capital letter for practice in each book, being guided in the development of such study by *one* book. Thus, one class would write the pages of their book consecutively, while the

other class might have to select certain pages in their book where the same capital letter occurred. This would not be objectionable, provided the teacher found it imperative to make one class of the eight grades. The class containing the *younger* four grades, however, would better be the one to write their book continuously.

8. The pupil should continue to memorize the principles and the several classes of letters made from them, as well as the individual letters of each division (see "Memory lesson," page 39). He should also be able to state clearly the important details of form of any written character that he has been taught. When teaching letter formation, such mental education and *oral description* cannot be unduly emphasized. See "Study and comparison of work by pupils" in model lesson, pages 43–45.

9. The scale of script should be carefully studied this year, so that the final work in the heights and lengths of the letters may be put upon the pupil's writing (see instruction on pages 51–55).

10. Specimen work should be kept, and should consist, first, of the technical-movement exercises practiced, and secondly, of the regular written papers of the class room. If it seems to the teacher that the pupils' penmanship is somewhat better when they do not need to think of the subject-matter, a second set of written papers should be laid aside. These should represent the result of direct teaching and practice during any writing lesson, or they should be copied work of some kind. When this writing is compared with any written school exercise, there should be but slight difference noted.

The status of the pupil in his study of penmanship at the end of the fourth year may be stated as follows:

In addition to the details noted at the close of any previous year's work (for first year, see page 138; for second year, see page 140; for third year, see page 143),

1. He should understand what is meant by *movement* in writing.

2. He should understand for what this movement is used.

3. He should be able to execute a number of the ten progressive movement exercises noted on pages 84–96.

4. Practicing these exercises ought to have helped him to gain good control of his arm.

5. He should have perfected his manner of penholding.

6. In his study of letter formation he should have completed copy book number three.

7. He should have memorized the basal principles of the letters.

8. He should know the individual letters of each class.

9. He should be able to state clearly the most important details of form in any letter he has studied.

10. His written work should show notable uniformity in general size and length of letters, because he has studied, practiced, and applied every detail of the scale of script.

11. His specimens of penmanship, as well as the written exercises of the class room which have been laid aside at different times during the year, should progressively show improvement in the particulars above noted.

Fifth year's work

1. During the fifth year the pupil should study and practice the application of movement to *letters* and *words*. Because of this new work any writing period should be divided into three parts. First, the study of technical movement

should be carried forward and the pupil should practice conventional exercises as he did during the fourth year; thus better control of the forearm will be secured. Secondly, the study of letter formation should be continued in order that legibility may be not only retained but greatly improved. Thirdly, movement should be applied to writing letters and words so that the pupil may be trained to *write* and not to *carve* script forms.

A few suggestions as to the teaching of these things may be helpful.

2. Certain technical exercises, such as the lateral slide, the push-and-pull vibratory muscular movement, the ellipses, and any of these arranged in combination, should be continued. In addition the ellipses and "figure eight" with horizontal axes, as well as the figure eight with a main slant axis, should be practiced. Any of these last mentioned should be made in combination, or in combination with any exercise first mentioned in this paragraph. These various designs will prove restful to the pupil while he is practicing technical movement to gain control of his arm. See note, bottom of page 96. The teacher should assist in making these original figures.

3. The study of letter formation this year should include several details:

a. If any pupil's writing tends to become angular, the tendency should be corrected (see instructions on pages 72–74).

b. The varied, and especially the more difficult, combinations of letters in the writing-book copies should be carefully studied. Some horizontal joinings, as *b*, *v*, or *w* with *e*, *b* with *y*, *o* with *o*, *d*, *v*, and *s*, are combinations which will furnish material for special practice.

c. This will lead to studying the space between any two letters of a word, — the lateral spacing of penmanship.

4. When writing copies in the book or repeating a copy several times on paper, it is difficult for some pupils to write each succeeding sentence exactly under the first at the top of the page. Hence the copies grow shorter each time one is written. To correct this tendency ask the pupil to place the upper edge of his practice paper immediately under the printed copy at the top of the page. The left side of this paper should be vertically under the capital letter with which the sentence begins. Ask him to make a dot on the upper edge of this paper, halfway between any two words of the sentence, and one to represent the period. Direct him to place this dotted edge of the paper just under every line on which he writes that particular copy. This will show him the exact lateral spacing of it, as well as the proper position for every period. Hence the copies will be of equal length across the page.

This placing the paper under the pupil's hand will also assist in keeping the page of the book clean.

5. Copy book number four should be completed. The teacher should remember that one third of the time allowed for the writing lesson this year is to be devoted to the study of letter formation and to writing in the book. It will be well for her to estimate the number of pages which must be written each week to accomplish this work.

6. Suggestions for the application of movement to letter and word writing are given in great detail, beginning on page 98. The teacher is advised to make extended use of the "tracing process" explained on that page: first, in making ellipses; secondly, in making the letter *n*, as described

on pages 99 and 100; and thirdly, in writing the word "see" as instructed at the bottom of page 100.

7. The teacher should arrange for similar practice by applying the "tracing process" to other letters than *n*. She should ask the pupil to learn each movement and to name it for the letter which it forms. See "Practical application of movement to written forms," page 79.

8. The "tracing process" should be extended to the writing of other words than "see." The teacher should ask the pupil to learn each movement and to name it for the word which it writes. See "Practical application of movement to written words," page 80.

9. To assist the pupil to use movement continuously in written work, the teacher should make use of the instruction given under "Alternating a technical exercise with written work," page 102.

10. Following the suggestions noted above, the teacher should begin the plan of "Application of spacing across the entire width of the paper for words of two letters," on page 103. She should read carefully the notes on pages 105 and 106. She should extend this plan by applying it to words of three, four, five, six, seven, and eight letters, according to the grade or ability of the pupils taught. In all this work she should remember the five directions for teaching application of movement given on pages 85 and 107.

11. She should apply this plan by asking the pupil to write consecutively words of from two to eight letters in length across *one half* of the width of his paper, as instructed on page 107.

12. To diminish further the space between any two letters of a word, she should ask the pupil to write words of from

two to eight letters in length across *one quarter* of the width of his practice paper, as instructed on page 110.

13. In all this work of application of movement there is one very important way in which the teacher should help the pupil. She should *count* for him. For her instruction in this particular she should read with great care pages 121–125 of this book. Especial emphasis is placed upon "How to count," on page 122.

14. The teacher is not advised to attempt to *teach* applied movement to sentence writing this year (see exception noted in the next paragraph). The pupil will have ample practice in applied movement in the variety of letters and words selected by the teacher (see paragraphs 7–13 above). This work in movement is to be developed very slowly.

15. The pupil should be *encouraged* to use movement in all his written work. If, as a result, he forms the habit of moving his forearm to some extent, it will be easier to make the direct application of movement to sentence writing during the sixth year.

The status of the pupil in his study of penmanship at the end of the fifth year may be summed up as follows:

In addition to the details noted at the close of any previous year's work (for first year, see page 138; for second year, see page 140; for third year, see page 143; for fourth year, see page 148),

1. He should be able to do various technical-movement exercises: first, those he studied last year; second, original combinations (hence designs) of his own; and third, those suggested by his teacher.

2. The practice just noted should have helped him to gain a great control of his forearm.

3. His script should represent proper curvature from his particular study of that subject.

4. He should *understand* how letters are joined in words, and particularly the most difficult combinations of letters.

5. He should understand something about the *lateral* spacing of penmanship.

6. He should be able to write a series of repeated copies directly under each other.

7. He should have completed copy book number four.

8. He should be able to apply movement to writing letters and words.

9. The application of movement to words should first be made across the entire page.

10. To lessen somewhat the space between any two letters of a word, he is able to write it across one half of his practice paper.

11. To lessen still further the space between any two letters of a word, he is able to write the word across one quarter of his practice paper. He should follow the order of practice developed in paragraphs 10, 11, and 12, page 151, when first applying movement to the writing of any word.

12. As a general application of movement to written work he should be able to move his hand to some extent when writing any text.

Sixth year's work

The new work to be studied and practiced during the sixth year is the application of movement to writing sentences. The writing period may be divided, as last year, into three parts: first should come the practice of a technical-movement exercise; second, the study of letter formation, — some part

of the copy in the book or its special application; third, the application of movement to sentence writing.

If the teacher prefers, she may give lessons in these subjects on alternating days. In this way five lessons in each would be given every three weeks, if a writing lesson is arranged for every school day.

1. The same suggestions given for technical-movement exercise practice in the fifth year are applicable to similar work this year. The teacher should continue to design new exercises or review old ones.

NOTE. It is necessary for the pupil to carry forward this technical practice so that he may gain greater control of his forearm, and in this way acquire more power of execution in writing. Such work is as important as it is for an accomplished pianist to practice continually the scales and other technique.

2. In studying letter formation copy book number five ought to be completed this year.

3. As the pupil gains greater ability to write sentences by using applied movement, he should write the copies in his writing book in the same manner. This will give him confidence in his power of execution. See paragraph 2, page 101.

If the pupil uses applied movement during his technical practice, and "carves" his script when he writes in his copy book, he would be as inconsistent as if he used correct English during the recitation in grammar and spoke without any regard to that correctness at all other times.

4. It will prove both interesting and educative for pupils of this grade to study the construction of script which is explained on pages 49 and 50. Such instruction should be developed slowly, and not necessarily in consecutive lessons.

5. The letters should be studied with reference to their similarity of form. Suggestions noted on page 40 and at the top of page 41 will prove helpful in this particular. Although these deal only with the small letters, similar work should be done with the capitals.

6. "Teaching script by measurement and comparison," page 46, should be applied to letter formation this year. As each character is so studied, the pupil should memorize its particular proportions.

7. *Blackboard writing.* Unfortunately, blackboard writing is rarely taught to grade pupils, and it is a mistake not to do so. To see the result of this neglect it is only necessary to visit the average schoolroom and look at the boards after an exercise in language, geography, or arithmetic has been written there by the pupils. Such poor work is too commonly seen to need any description. It is this character of writing on the boards which often leads to the same quality on paper.

If there is any one instance in which slovenly writing should never be allowed, or accepted from the pupil, this is the instance. The one remedy is to teach pupils how to write properly on the board, and to tolerate nothing which is in the least degree untidy, carelessly executed, or poorly arranged. They should be taught to take as much pride in the general appearance of the blackboards as they would in the walls of the parlor in their own homes.

Complete instructions for blackboard writing begin on page 33.

8. It is of great importance to teach the numerals. Read how this should be done, on pages 55 and 56.

9. The instruction for applying movement to sentence writing will be found in progressive detail on pages 110

to 114. This should not be forced, and advanced practice should be given only as the proficiency of the pupils in their present practice warrants.

10. The teacher must not forget the highly important suggestion given in note on page 106.

The status of the pupil in his study of penmanship at the end of the sixth year may be summed up as follows:

In addition to the details noted at the close of any previous year's work (for first year, see page 138; for second year, see page 140; for third year, see page 143; for fourth year, see page 148; for fifth year, see page 152),

1. His technical-movement exercise practice should have given him so much greater power of execution that his script has lost much of its former crude appearance and looks more mature as a finished product.

2. While writing copy book number five he should have written the copies in the book by using applied movement, since he is studying its application to sentence writing.

3. The pupil's knowledge of penmanship has been extended to include more of its technical construction. This is of much assistance to him in forming the letters with a greater degree of correctness as he applies movement in writing them.

4. The pupil can group the letters according to their similar formation.

5. The pupil knows more about the proportions of the letters which he has studied. These last two details are valuable acquisitions, for each is of great importance in the study of applied movement.

6. The pupil's blackboard writing should have shown much improvement this year because of special study in that particular.

7. The pupil should be able to form the figures accurately because of his special study of them during the year.

8. The pupil should be able to write (not "carve") sentences, continuing at least twenty-four letters across the paper. It must be remembered that during the first work of applied movement, open lateral spacing is necessary.

9. The legibility of the pupil's writing is maintained as he writes with applied movement.

Seventh and eighth year's work

The suggestions which follow should be used in teaching penmanship in the seventh and eighth grades. The years are combined for two reasons,—the work to be done in each year is very similar, and it frequently occurs that less time is devoted to this study in these grades because of a crowded curriculum. In this last case the regular teacher will be more competent to say just how her work should be arranged to include such writing lessons as it may be desirable to give than any prescribed course of study.

Undoubtedly regular lessons can be given during the seventh year; hence the amount of instruction and the consequent practice will be greater than in the eighth year. Nevertheless, it is strongly urged that whatever lessons are planned for this last year's work shall be given as consecutively as possible, although the time devoted to each one may be limited. This is far better than to have a longer lesson with a greater interval of time between any two writing periods.

Some of the most important matters to be emphasized are noted below:

1. Continue the technical-movement exercise practice. It may not be necessary to do so to such an extent as in the fourth, fifth, and sixth years, for the pupil now has control of his arm in writing. Hence such exercise practice may be subordinated to other work next mentioned, but it should not be discontinued.

2. Continue to have the pupil use applied movement when he writes sentences. For technical practice the teacher should have these sentences contain as many letters as are necessary to gain the lateral spacing she desires between any two in the sentence.

3. One important matter which should be developed in practical application is the use of applied movement in writing the various papers of the class room. The teacher should thoroughly acquaint herself with the plan suggested for such work, and practice it sufficiently to be able to assist that particular pupil for whom the work may be difficult. The plan is simple and its execution not beyond the ability of any teacher. For instructions see "Geography," page 114; "History," page 117; "Spelling," page 119.

Similar work should be arranged by the teacher for the use of applied movement in writing language lessons, topic and memory gem books.

4. The second important subject to be studied is "Speed work" (for instructions in this see pages 125–127).

5. In connection with speed work, and for its application, there is nothing better to practice than the numerals (see "Making figures," page 120; see also pages 55 and 56).

6. Blackboard writing is important in the seventh year, and even more so during the eighth year, because copy-book practice is sometimes intermittent during this last year. If this is

the case, there is no better way of maintaining the excellence of letter formation than by means of the pupil's blackboard writing. Such work will help him to write better on paper.

7. The copy book usually written during the seventh or eighth year contains business and social forms and commercial correspondence. It is well to refer to these forms for their intrinsic educational value, but, above all, the technical application should be the insistence that similar papers must be written legibly and rapidly. To this end practice on such models should be given first in connection with the study of language, and secondly in arithmetic or bookkeeping. Emphasize that high standard during the writing hour, and accept nothing below that standard in such written exercises of the class room.

8. *Technical review work.* It is well known by teachers that occasionally pupils develop in their work something which is entirely foreign to what they were long ago taught and had mastered. In this respect the study of penmanship is no exception. If anything of such a character is noticed during these years, it should be corrected. The best way to do this is to study again the fundamental principles on which that thing in which they failed, is based. The teacher should not think it beneath her dignity or that of high-grade pupils to do such review work. She should be governed only by the need of the class.

9. To make further application of the study of letter formation, extend the plan mentioned on page 142, paragraphs 1, 2, and 3, in the following manner:

Write a copy on the board, teach it, and under careful supervision have the class write it three times on paper. Then, for example, ask a series of questions in geography:

"What is the capital of this state?"; "Name six counties in the state"; "Give the location of three of the largest cities in this state." The answers to these questions and others of like character are to be written as well as the standard in penmanship which the pupil has set for himself in writing the repeated copy of the writing lesson at the top of the page.

A final word to teachers

It should be remembered that there are but fifty-two letter forms, with their different combinations, and ten figures to learn how to make. Almost every pupil has an opportunity to acquire these by means of writing lessons extending through seven or eight years of school life,— an ample amount of time.

There is nothing suggested in this book which the teacher cannot teach, or which is too difficult for the average pupil to acquire. Success will depend on having a definite plan by which to teach, and on developing that plan slowly and gradually and requiring the pupil to master each successive step. In this way his writing will improve, and continual attainment will become the ever-broadening foundation upon which he builds. Nothing less than all this can be called *teaching penmanship.*

Be *thorough.* Educational history contains many an example of a boy who has been taught much less than another, but who has applied every detail of that instruction and step by step built up for himself a practical education which he knew how to use.

The second boy was given superficial work in many studies and was not properly trained in any one. This experience was to him what might be called an educational escalator, to help him up through the successive grades of school. When years

had elapsed a vacant brain and inability to apply demonstrated his mediocre education at the tremendous price of wasted time. Penmanship has too commonly been taught (?) in this manner, and the result is everywhere apparent.

Be clear in stating your instruction, and persistent in teaching. If the pupil fails to grasp the instruction when it is first presented, instead of thinking him an idiot, remember that there is more than one way of teaching a thing. Try to discover why he failed the first time, then teach this subject in a little different manner, and doubtless success will follow.

It is well to impress the pupil with the fact that writing as well as history is in the course of study; that although he wants to earn 100 per cent, or *E*, in his written exercise in history, there is little glory in winning this at the expense of lowering his standard in penmanship; hence it is also important to get an equal rank in penmanship. He should be reminded that if he writes poorly, the teacher may make a mistake in correcting his composition, in which case the fault would be his and in no manner would she be responsible. He must also understand that if he should write any school exercise poorly, the teacher would consider it little less than an inexcusable imposition. The school committee employ her to correct the subject-matter of any such paper, and do not require her to spend extra hours in deciphering scribbled penmanship before she can do so.

If the pupil is required to govern himself by these suggestions, the written papers of the class room will be immeasurably improved.

Finally, give some time to the study and practice of penmanship, plan your writing lessons for the pupils, then *TEACH* from your experience and plan.