

Editor's Note

The following is Part II of a Special Topics in Disputed Document Testimony put on The 1931 Conference of Friendly Document Examiners (precursor to ASQDE). This collection was presented by Peter Tytell at the ASQDE meeting in 2006. Peter's preface and John Harris' foreword are included.

This publication has not been peer-reviewed. The speakers were part of a generation that really learned to write, and the writing instruments discussed are steel nib pens. Nevertheless, the principles espoused in it still apply today. As John Harris states in his foreword, "But don't discount the material because of its age. Questioned Documents are not limited to contemporary documents."

The remaining parts of this collection will be published in subsequent issues of JASQDE. As you read on, think carefully on how you would answer these questions. Write down your answers.

Linton A. Mohammed, Ph.D, D-ABFDE
Editor-JASQDE

Section II Handwriting—Continued

11. What value should be given to systems of writing as a means of identification?

EDWIN H. FEARON

The classifying of the handwriting by discovering what system a writing is related to is very important. It may be of sufficient value to show that a disputed writing was not written by the writer of the standards. In any event it reduces the number to whom the writing may possibly belong. System characteristics should be a part of every examiner's goods, wares, and merchandise. Without this knowledge there is always a danger of confusing system characteristics with individual characteristics, and thereby make a serious and embarrassing error.

ALBERT D. OSBORN

Great value should be given system forms for the evidence that two writings are based on different systems will be positive proof that they were not written by the same writer. On the other hand, two handwritings apparently based on the same system have that common quality, and if that quality is coupled with like individual characteristics in the two writings, and there are no real differences, the conclusion will naturally follow that they were written by the same hand. The system of writing may be of value in limiting the possible writers and in eliminating certain suspected writers because of age of system or the nationality of the system. System characteristics taken alone as a means of identification may of course, and probably will, lead to error.

ALBERT S. OSBORN

This disputed handwriting is based upon a system or combination of arbitrary forms, which forms the basis of the hand. While handwriting is somewhat modified by all writers and greatly modified by some writers, it usually retains certain characteristics of the system upon which it was based. Many times this is a very important phase of an examination. Certain characters were first invented at a certain date, or approximate date, and their use in a document of a preceding date would be strong evidence of a lack of genuineness. The presence, also, of certain characteristics in one series of documents and their absence in another many times is almost conclusive proof of lack of identity. The matter of system is very important in connection with the study of foreign handwriting or the handwriting of those who first learn to write in another language or in another country.

RAFAEL FERNANDEZ RUENES

System is to handwriting what accent is to language. Even in the same language, in different regions of the country accent is kept until many years after having departed from the natal town. The system of handwriting learned first reappears through any other that is adopted subsequently. The one who learns the commercial arm movements system after having a personal handwriting, notwithstanding his command of it, will often introduce letters and will make movements that are not of that system, but of the one formerly learned.

The form, above all of some capitals, is kept all the life, with slight and identifying variations. For instance, the Sacred Heart system, though taught within very strict pattern, each pupil adapts it to her manner, and in spite of its general form being almost equal and of its identifying women educated in those institutions, yet they differ from each other to the eyes of the expert.

ELBRIDGE W. STEIN

The presence in a writing of distinctive system evidences serves to classify the writing as belonging to a class of writers who learned that particular system, but these system indications do not identify the writing as having been written by a particular writer of this class. The absence of system indications in a disputed writing of considerable length when the genuine writing contains strong system influences may be sufficient divergence positively to differentiate between them, thus it will be seen that the affirmative influence of system is toward a class while the negative effect may be so strong as to eliminate a suspected writer from having written certain writings, or it may be a basis for a positive conclusion that a signature is not genuine.

JOHN F. TYRRELL

- a. An individual seldom is able to write consistently two distinct systems. The disclosure of two systems in a comparison of two documents would not tend to support a theory of identity.
- b. The use of the same system in two writings under comparison must not be accepted as evidence of identity. The same is true of National characteristics.
- c. The evidence of use of a certain system may definitely dispose of a comparison problem.

12. Illustrate and describe some of the most significant characteristics of (1) Old Round Hand Writing, Modified Round Hand Writing or Pre-Spencerian, (3) Spencerian, (4) Vertical Writing, (5) Modern Commercial.

EDWIN H. FEARON

Old Round Hand

Written entirely with finger movement. Downward strokes all shaded.

Upward strokes on the same general slant as the downward. Heavy part of the shade of loops below the line was at the top, gradually tapering toward the bottom.

Capitals *B, E, K*, and *R* were made without the center loop.

Omission of the beginning of the beginning stroke of the *a, o, d*, and *g* and the final stroke of the *s*.

Frequently the staff of the *l, b, h*, and *k* were made with a single line.

Loop letters were about two times the height of the small letters *a, o, m*, and *n*.

Modified Round Hand

Loop letters were made longer than the Old Round Hand.

More freely written—tendency toward flourished strokes in the beginning of capitals.

Form of the capital *A* modified.

Center loop of capitals *B, E, K, R* slanted down ward. Difference in the beginning of the *H, K*, and *W*.

Writing as a whole shows more of an appearance of speed.

Modified Round Hand shows the beginning stroke of the *o*, *a*, *g*, *d*, and the final stroke of the *s*.
Style of the figures 4, 6, 9, and 5 slightly changed.

Pre-Spencerian

Loop letters four spaces above the base line. Ornate start and finish of capitals.
Ornate crossing of the *t*—above the letter.
Forms of the capitals *A*, *N*, *M*, and *I* angular at top. Capitals shaded and tendency to shade small letters.

Spencerian

Less ornate than earlier systems. Shade not omitted.
Notice able omission of the ornate beginning and finishing of capitals as indicated in the earlier systems.
Loop letters three spaces above and two below the baseline. Small *p* two spaces above the base line and 1½ below.
Shades on capitals placed near the baseline.

Vertical

Forms based upon the circle instead of the ellipse. Slow and difficult to write.
Based upon the printed style of capitals. Connections very round.
Small *k* and *h* were frequently written without the loop—similar to the Old Round Hand.
Smalls slightly looped at the top.
Height of small letters about one-half the height of the capitals. Small letters frequently connected to the capitals.

Modern Commercial

Light lines—no shades.
Designed for speed and legibility—no pen-lifts.
Small initial ovals of the capitals *H*, *K*, *M*, *N*, *Q*, *V*, *W*, *X*, *Y*, and *Z*. Omission of the beginning stroke of the small *a*, *d*, *g*, and *q*.
Omission of the ovals in finishing capitals. Change in the making of the small *p*.
Change in the style of making the figures.
The capitals *A* and *C* are usually made in the enlarged form of the small letters.
Form of the capitals *S*, *T*, *G*, and *I* were finished with a horizontal curve instead of an oval as in the Spencerian. This permitted the connection of these capitals to small letters.

JOHN L. HARRIS

Old Round Hand Writing

1. Capital *A*, *M*, *N* with an upward first stroke.
2. Capital *B*, *R*, *E* with no loop in center of downstroke.
3. Small *f* with loop at the top and none at the bottom.
4. Small *w* made like *n* and *v* combined.
5. Capital *W* within complete oval of two strokes, in which lines do not cross.
6. Small letters *a*, *d*, *g* preceded by pen raise.
7. Small letters *a*, *d*, *g*, *q* have a notch at the top.
8. Small letters *a*, *d*, *g*, *o*, *q* at the beginning of words made with no introductory upward stroke.
9. Small letters *s* and *o* leave off the finishing tip at the end of words.
10. Retracing on small letters such as *h*, *n*, *m*, *w* very pronounced
11. High shading.
12. Distinct forms of figures such as 4, 6, 9.
13. Formation of letters and connecting strokes are of rounded formation.

Modified Round Hand Writing or Pre-Spencerian

1. Very much shaded.
2. Large and embellished capitals.
3. Considerable variations in proportions in size of capitals as compared with each other.
4. Loops of the small letters were elongated.
5. Considerable variation in the form and lack of systematization.

Spencerian

1. Writing very systematized and uniform throughout.
2. Writing more angular than Round Hand in order to produce speed.
3. 52 degree slant from horizontal.
4. 3/5 of space above line and 2/5 below.
5. Simplified forms of capital letters over Pre-Spencerian.
6. Arm movement instead of finger movement.
7. Little shading on the small letters.
8. Wider space between small letters.
9. Better legibility and symmetry than in Round Hand.

Vertical Writing

Vertical writing is an attempt to simulate printing and is distinctly different to any other system of writing. It somewhat resembles Modern Commercial writing in that it is simplified and does not possess any marked degree of embellishment. The slant is vertical; movement is very slow. The letters appear round and drawn. Attention is given to form rather than to movement and speed. In some respects vertical writing is an improvement along the lines of Round Hand Writing, but simplified and more legible. Relation of small letters to capitals in height is one-half.

Modern Commercial

Modern Commercial is a simplified rapidly executed free arm movement writing without much shading and possessing straight and narrow connecting strokes. Modern Commercial writing has a better degree of legibility than Spencerian, and has the advantage over the vertical system that it can be rapidly executed. There are innumerable different systems of Modern Commercial writing taught in the present schools, but the variations of form, slant, connecting strokes, and other characteristics of the writing are closely related. In all the systems there are only slight modifications which cause them to vary one from the other, such as slight changes in formation of certain letters. Modern Commercial writing is distinctly universal today, and can be easily distinguished from any other system of writing.

SCOTT E. LESLIE

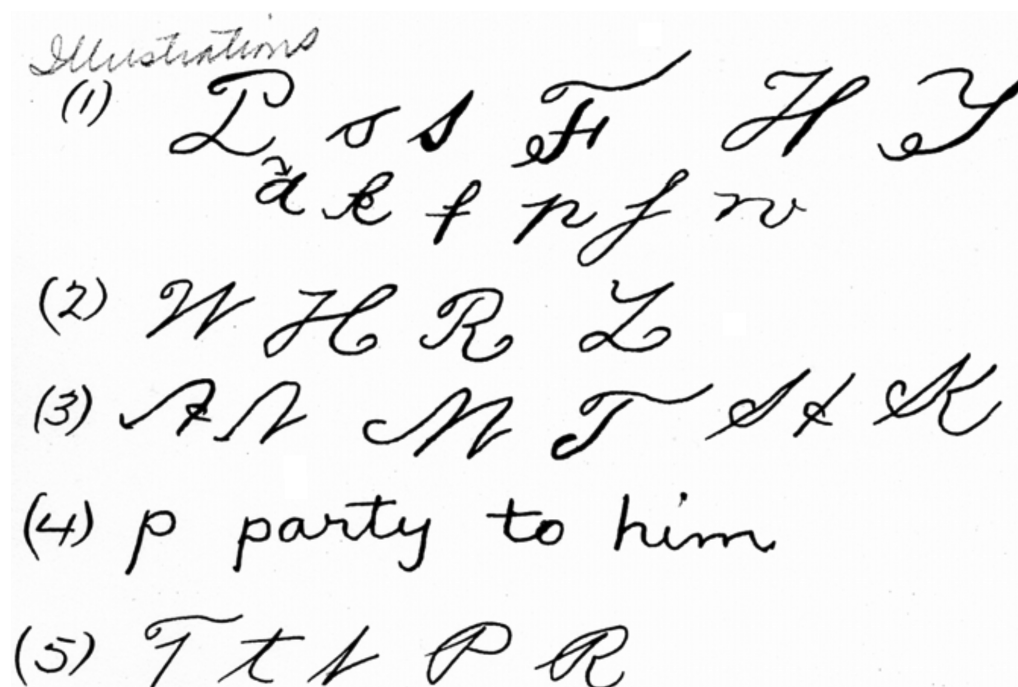
1. In the Old Round Hand Writing all down strokes were shaded. The pen was frequently lifted from the paper. The shaded strokes were connected with delicate fine lines and the pen used was necessarily a fine one. The notched small * was used and the * for w.
2. The Modified Round Hand Writing or Pre-Spencerian was characterized by more freedom and lighter lines. The greater freedom resulted in changed letter forms in some instances. It also resulted in more writing speed. Some of the changes in letter forms were from * to *, from * to *, and from * to *. The small letters also were written more rapidly and with less shading.
3. The Spencerian writing following the Modified Round Hand was characterized by much greater simplicity and changed letter forms. While the capitals remained ornate, the small letters were quite simple and contained few shadings. It was written with more ease and speed than either the Old Round Hand or the Modified Round Hand. The final Spencerian forms were much simpler than earlier forms of the same system.
4. The Vertical Writing, introduced about 1890, stressed simplicity of forms, which were to be made with all down strokes vertical or at right angles to the line of writing. In addition, it

was characterized by roundness of forms, which was in striking contrast to the angular hand. Upward beginning strokes were all omitted on *O*, *a*, *d*, *g*, and *q*.

5. The Modern Commercial hand was evolved from the Spencerian. The application of relaxed arm movement to writing in commercial schools resulted in a small light line style that is quite widely used throughout this country. Simple, legible forms, ease and speed in execution are stressed.

ALBERT D. OSBORN

1. Old Round Handwriters were taught to shade each down stroke. Some distinctive letters are *p*, *s*, *f*, *B*, *L*, *M*, *6*, *g*.
2. Modified Round Hand eliminated some of the shading on down strokes, also introduced new letters *W*, *N*, *T*.
3. Spencerian began systematically the initial stem *A*, *N*, *M*, *P*, *B*.
4. In Vertical writing the small *p* is made without the staff of the letter going higher than the oval. The writing occupies three spaces, two above and one below the base line. The small *h* and *t* are made with no initial upstroke.
5. The Palmer System is widely taught at present. Some distinctive letters are *T*, *U*, *V*, *W*, *t*, *z*.



ALBERT D. OSBORN

Old Round Hand

The Old Round Hand system of handwriting was a very distinctive style, which is still used in many countries of Europe. It is referred to as the Latin script, as what we refer to as English handwriting is based upon Italian handwriting of the Sixteenth Century. The style of writing in England was changed approximately during the period of the life of Shakespeare. Shakespeare learned and wrote the Gothic handwriting, containing many characters unfamiliar to one who has not studied the subject. The Old Round Hand used in England and America had certain distinctive characteristics. One of these is the form of the *a*, *d*, *g*, and *q* made with an ellipse on the same slant as the small *o* and made in the copy books by lifting the pen in order to complete the letter. Another peculiar and distinctive character was the small *s* with a pronounced curved in the downward stroke.

*Space left for illustration, but illustration not present.

Another delicate but highly distinctive characteristic was a curvature in the lower part of the finishing loop of the small letters *g* and *y*. These letters, when shaded, began the shading at the top and the lower part of the loop swung slightly out to the left producing a characteristic unknown to later or Spencerian writers and frequently violated in an imitation.

Another characteristic of this old handwriting was a long finishing stroke of the letter *W*, and in numerous systems the *h* and *k* and sometimes the *l* were made without a loop. The beginning loops of letters of the *V*, *W*, and *Y* group did not make a crossing of the stroke, but the letter began on the inside of the loop. This old handwriting often showed shading on every downward stroke which was one of its common characteristics.

Modified Round Hand

Modified Round Hand writing shows double beginning loops of *V*, *W*, and *Y* and similar letters. The proportions of the small letters often were four or five to one and many capital letters were written with ornamental flourishes and heavy shadings. The *A*, *N*, and *S* were made with double finishing loops by many writers, and capitals *R*, *U*, *K*, and *L* were finished with a loop on the right-hand side of the letter. In certain systems the *C* and *E* began with a left curve down at the baseline, and letters *W*, *U*, and *I*, and *J* were often made with sharp pointed tops.

Spencerian Writing

Spencerian writing furnished an almost entirely new set of capital letters. Capital stem letters like *A* and *N* began at the top, and the second stroke also began at the top. The proportions of the letters were three to one above the line and two to one below the line. Capitals were all systematized and were supposed to be made the same size and without the extra flourishes in the older writing. Shadings were made low on curved strokes in *A*, *N*, and *M* and similar letters, and the small letters were not all shaded.

Vertical Writing

The new vertical writing, which came into use shortly after 1890 and was taught in American schools for about ten years, was based on the circle and introduced an almost entirely new style of writing, with many new inventions of letter characters. The proportion of the system was two to one instead of three to one in the Spencerian or four to one in the older writing. Many initial strokes and concluding strokes were omitted, and the writing was often written with many pen-lifts as it was taught in this manner. A very peculiar letter was the capital *G*. No loops were made below the base line, and the capitals *S*, *B*, *P*, and *K* were practically printed forms. The small *h* was usually made without a loop, and the small *p* first part was only as high as the second part, differing very radically from all previous systems of writing. The writing was supposed to be written vertically, but the usual writer usually developed a slight backhand, and with many writers the writing always continued to be slow and somewhat awkward.

Modern Commercial Writing

Modern Commercial handwriting is a slant hand, written somewhat smaller than previous styles of writing, with but little shading and with free connecting movements, so that even long words are made without taking the pen off from the paper. The writing is taught in connection with movement practice which develops the use of the forearm in writing and with many writers develops speed and lateral freedom. The Modern Commercial writing in England is what is called the Civil Service Hand, which makes wide spacing between the small letters and is written almost without shading and is smaller than the old style of writing.

ELBRIDGE W. STEIN

Old Round Hand

1. No connective slant.
2. All downward strokes shaded.
3. Proportions.
4. Pen raisings.
5. Letter forms.

Modified Round H and or Pre-Spencerian

1. Cursive or connected.
2. Shading.
3. Flourished forms.
4. Proportions.

Spencerian

1. Proportions.
2. Shading.
3. Forms.

Vertical

1. Proportions.
2. Slant.
3. Round turns.
4. Abbreviate forms.
5. Lack of shading.

Modern Commercial

1. Slant.
2. No shading.
3. Forms and connections.
4. Proportions.

JOHN F. TYRRELL

Old Round Hand Writing

All downstrokes shaded, slant of nearly 60 degrees. Small *s* finished on upstroke, pen-lift for small ovals, connecting strokes beginning and ending with rounded turns, pronounced slope in loop letters, form of capitals peculiar to the system.

Modified Round Hand Writing or Pre-Spencerian

Four space loops in small letters, every downstrokes shaded, result of pen pressure and pen flexibility; *s* finished on upstroke, slope of lower loop letters, rounded turns on the connections of lower case letters, side connection of small *o* to letter following.

Early Spencerian

Four space loops, hit or miss style of shading, square top *d* and *t*, long *f*, longs, ornate capital embellishment, loops and swirls in capitals.

Modern Spencerian

Grace and simplicity, 52 degree letter, 30 degree connection, fixed slants and proportions, right and left curve connections, three space loops, two space tops for *t*, *d*, and *p*; the seven principles in letter forms.

Vertical Writing

Finger movement, absence of slant, round characters, abbreviated forms, wide spacing, peculiar alphabet.

Modern Commercial

Form reduced to promote speed, simplicity. Several noted penmen and instructors used modifications of their own. Lister, in 1898, a beautiful copy of forms and exercises without shading. Palmer in 1901 somewhat similar, but distinguishable in several respects, particularly in certain capitals. In 1917 he published a modification of his previous efforts—still taught. Mills in 1903 through the American Book Co., some of which are reflected in the 1917 Palmer copies.

Lehman of St. Louis in 1912 and Courtney in 1915 furnished copies for commercial use, also somewhat reflecting the Mills type of writings of 1903. Mills in 1916 issued a new series of copies of business forms in some respects quite distinctive.

The New York alphabet adopted as a standard by their Board of Education and the form adopted by the National Association of Penmanship Supervisors in 1917 are in many respects similar to those of preceding authors and of Lister's standard forms of 1915. There is little to choose between the work of these authors, and too much dependence upon them as a means of identification of the system shown in an unidentified specimen is very apt to result in error.

HERBERT J. WALTER

Old Round Hand Writing

Old Round Handwriting was written with the finger movement or action of the thumb and fingers only. All of the downward strokes were shaded or emphasized. The slant of the writing ranged from 50 to 60 degrees from horizontal, and the connecting strokes between letters and parts of letters were nearer the slant of the downward strokes than in modern writing, and this together with the proportionate height of two to one between the capitals, tall extended letters, and the short letters like *u*, etc. gave to Round Hand writing a compact narrow appearance with words shorter in length in proportion to height, compared with modern writing.

No initial or terminal strokes (grace strokes) were used on the *a*, *c*, *o*, *d*, *g*, *q*, and *s*, the round letters *c*, *o*, *a*, *d*, *g*, and *q* commenced at the right hand side of the oval below the top, requiring the pen to be raised to start the letters, and the habit of lifting the pen before writing these letters and after the *s* was taught, and became a pronounced feature of Round Hand writing. The round letters *a*, *d*, *g*, and *q*, commencing as they did on the right side below the top, created a distinctive characteristic at the junction of the oval and the straight line at the top right part of the oval in the form of a V-shaped opening or notch.

The long shaded stroke in the lower extension of letters *g*, *y*, and *z* tapered toward the tip, and curved to the left slightly in a graceful manner. The upper extension loops were curved to the right, and the shaded downstroke tapered from the top. The lower part of the *q* was an angular character and not an *f* loop as now taught. The small *x*, the *z* and *k* were distinctive letters, and the combination *nv*-shaped *w* is typical of the system. Some authors omitted the loops in the *l*, *b*, *h*, and *k*, substituting a straight line, looping only the top of the *f*.

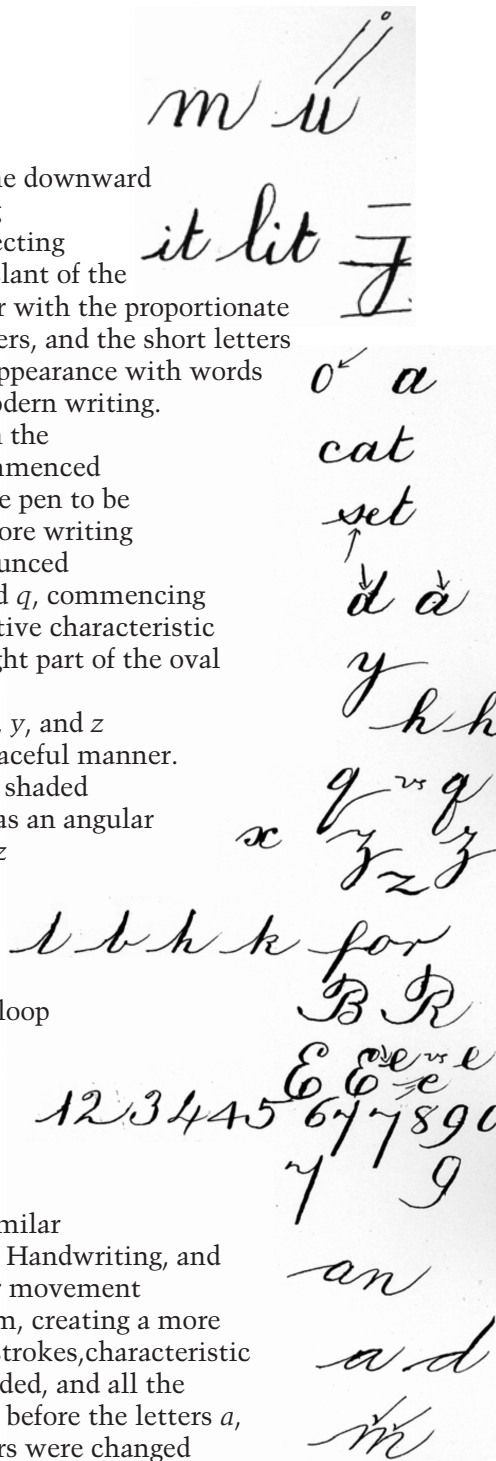
The *B* and *R* were made with a tracing stroke instead of a loop or eye in the right center of the letter.

The *E* back was a continuous wave line instead of a loop.

The Round Hand figures were shaded and have very distinctive shapes compared with modern figures.

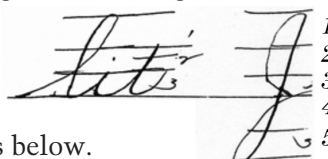
Modified Round H and or Pre-Spencerian

The Old Spencerian, Payson, Dunton and Scribner, and similar systems of writing were modified forms of the Old Round Handwriting, and retain the same outlines of many of the letters. The finger movement used in Round Hand was replaced by movement of the arm, creating a more fluent writing. The systematic shading of all of the downstrokes, characteristic of Round Hand, was omitted; some small letters were shaded, and all the capitals contained shaded strokes. The pen was not raised before the letters *a*, *d*, *g*, and *q* as in Round Hand, and the forms of these letters were changed to the pointed oval which stood at a different slant to the straight downward



stroke at the right of the oval, while in the Old Round Hand there was no difference in the angle of slant between oval and the straight line. This created a different type of letter, eliminating the notch characteristic of the letters *a*, *d*, *g*, and *q* in Round Hand. The letters *m*, *n*, *i*, *u*, *w*, etc. were connected at the top and base of the letter by straight rather than curved strokes, creating an opening between the up and downstrokes instead of retracing nearly to the top as in the Old Round Hand, and this had the effect of increasing the spacing of the writing.

The proportions of the letters were changed, the upper and lower loop extensions were increased in length to three above the base and two below, a five-space standard for the small *f* and capita *J*, *Y*, and *Z*. Some authors increased the proportions to four above and three spaces below.

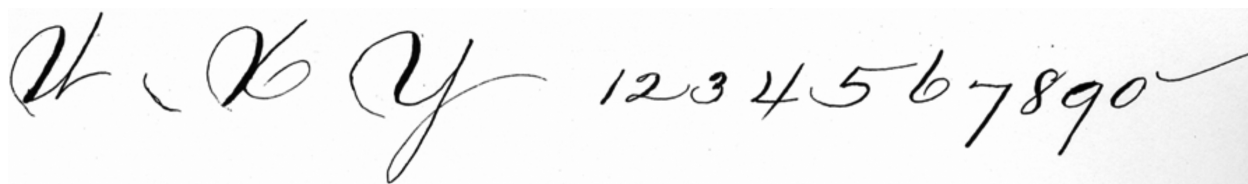


The finger movement used in the Old Round Hand was changed to a movement involving the use of the arm with some action of the fingers, and this increased the fluency, grace, and speed of the writing

Spencerian

The Spencerian system of penmanship, although still in vogue in some parts of the country, was the style of writing more widely used from 1850 to 1890 in the United States, but the system was materially altered from time to time, and changes and modifications were made in the design of the letters. The authors of this system organized and classified the letters. New features were introduced into the architecture of the capitals, which were divided into groups comprising thirteen capital stem letters, nine right oval letters, and four written with the left oval movement. Drills were instituted as practice leading up to the forms of the letters. The proportions of the letters were on the five-space scale, the *J*, *Y*, and *Z* occupied five spaces; the lower loop letters extended two spaces below the base of writing and the *d* and *t* one space above the small or minimum letters, like *u* or *m*. The slant of the writing was 52 degrees from horizontal with a connecting slant of 30 degrees.

At least one stroke in each capital letter was shaded. The system combined grace, beauty, and legibility with speed in writing, and was finally changed to a light line system of writing without any shades, and upon which the modern movement style of commercial handwriting is based.



Vertical or Upright Penmanship

Vertical or upright penmanship was first introduced by John Jackson, F.E.I.S., of London, England, in 1890, entitled *Jackson's New Style Vertical Writing Copybooks—Upright Penmanship*, and I believe the vertical system became established in the United States about the same time. Newlands of Hamilton, Ontario, Canada, published the vertical system in 1893.

The outstanding feature of the system was legibility, but it was written with the slow finger movement like drawing. The system advocated writing in a continuous manner from the beginning to end of words, the letter forms were based on the circle and straight line, and the proportions of the letters were on the three-space scale, two above and one below the base line; three spaces for the long letters *j*, *Y*, *G*, and in the small *f*. Some letter forms were abbreviated and commenced at the top downward, the top of the *p* was level as in the printed character, and the *t* and *d* stems were short and with some writers resemble the *i* and *a*.

Modern Commercial or Business Handwriting

Modern Commercial or Business Handwriting is a system of writing based fundamentally on the movement of the arm with the large forearm muscle resting as the pivot of motion. The letters are formed by the coordination of the hand and arm, moving in unison in the direction of the writing. The letter forms are based on the Spencerian system and are written with a light line requiring a uniform

and even pressure on the pen with little or no action of the fingers in forming the letters. No shaded strokes are used in this writing.

Those proficient in this system are fast and legible writers, but many are unable to bring the writing muscles under proper control and acquire a loose style of handwriting with speed as the only recommendation.

This style of penmanship began to evolve over thirty years ago and has now become firmly established as the typical American handwriting, replacing the famous Spencerian. Many penmen-authors have helped to develop the system— Mills, Zaner, Palmer, and many others have contributed to influence the form of modern writing in this country.

The prevailing systems are the *Palmer* and the *Zaner & Blosser*, and the forms of the letters of the writers of these methods can be distinguished from Spencerian writers.

J. CLARK SELLERS

Round Hand (Before 1840)

b, d, h, k, t unlooped staff.(Illustrated**)

Notched *a* and *g*. (Illustrated**)

A, N, and *M* began at bottom of letter.(Illustrated**)

E no center loop.(Illustrated**)

a, d, g, c, open-lifted before making.(Illustrated**)

Lower loop shaded near the top in such letters as *j, y, g, z*.(Illustrated**)

Also curvature of tail below the line has a noticeable slant to left near base. (Illustrated**)

s and *o* pen-lift following. (Illustrated**)

w made like an *nv*. (Illustrated**)

m and *n* retracing of downward staffs.(Illustrated**)

a, d, g, c, o, g with out upward tick at the beginning of the word.(Illustrated**).

Angle of upward connecting strokes a tslant of 43 degrees, as against a slant of 30 degrees in Spencerian. (Illustrated**)

Modified Round Hand (1840 to 1865)

A handwriting which retained some of the Old Round Hand, interspersed with new forms, which were the forerunners of the Spencerian and the Payson, Dunton and Scribner systems. These new forms were characterized by double loops or flourishes at the beginning of many new capital letters. It also lacked a definite scale as to the relationship of the size of one letter to another.

The slant was changed to a more forward slant.

In the early Spencerian flourishes in the form of beginning and ending loops were shaded instead of the main downstrokes, as in *C, Q, W*. (Illustrated*) Narrower turns at the base and tips of letters, as in *h, n, m*. (Illustrated*)

Spencerian (1865 to 1890)

The Spencerian and the Payson, Dunton and Scribner system forms were consolidated into one system, which finally became known as the Spencerian System. The letters were made to a definite scale in height, width, and slant.

In this new system forms were simplified and extra strokes and flourishes were eliminated. This system developed a slant of 52 degrees, and had a scale of "fifths", (3 above and 2 below the line), less shading, and wider spaces between letters.

Finishing strokes to letters *s* and *o*. (Illustrated*)

Introductory strokes to letters *a, d, and c*.(Illustrated*)

The arc of the downstrokes is much greater than in the Old Round Hand or in the Vertical Writing of the "90's" [1890's]. (Illustrated*)

** Illustration not present.

Absence of double beginning in such letters as *W*, *V*, *N*, and *M*.(Illustrated*)

Letters began at base line. (Illustrated*)

Round topped *I* and *J*, as opposed to angular tops.(Illustrated*)

Vertical Writing (1890 to 1900)

A new system was introduced in the schools about 1890 and lasted until 1900. It was characterized by an almost perpendicular or vertical formation of the letters. Round angles at top and base caused a slow finger movement, but produced a legible handwriting. There was an absence of preliminary strokes to *a*, *d*, *g*, *q*, *u*, *w*, *o*, *j*, and *i*. (Illustrated*)

Modern Commercial (1900 to present)

Modern Commercial handwriting was principally developed in the commercial schools since 1900, and is based upon the late Spencerian System. It is characterized by a forward slant, proportions similar to the late Spencerian System, the chief difference to that system being a simplification of the forms and an absence of flourishes and excessive shading, in which the fingers, hand, and arm coordinate to produce a rapid, easy writing. (Illustrated*)

13. Describe and illustrate ten common deviations from system forms in developed handwriting.

EDWIN H. FEARON

Finishing of the small *d* and *t* and *l* below the line.

Omission of the beginning stroke of the small *t*.

Making the small *n* like the small *u* and the small *a* like the small *o*.

Making the top of the small *s* round.

Beginning of the small letters *n* and *m* similar to the capitals.

Making a printed form of a letter and joining it to script forms.

Making the capital *T* and *F* with the top and stem joined in one continuous curve.(bookkeeper's style)

Making the form of the small *k* in a word similar in form to the capital.

Use of the Greek *e* in Modern Commercial writing.

ALBERT S. OSBORN

1. Tendency to make beginning small letters of words larger and ending letters smaller than average letters.

2. Lack of uniformity in habit of shading, with heavier shadings on certain letters than on other letters.

3. Abbreviation of certain letters at the beginning and end of words.

4. *t* crossings and *i* dots wrongly placed and often to the right of the letter of which they are supposed to be a part.

5. Tendency to eliminate certain connecting strokes in the middle of words, especially following *o* *v* and *w*.

6. Tendency to eliminate narrow turns at the tops of letters *n* and *m* and last part of *h*.

7. Tendency to make printed forms of characters *p*, *B* and *S*.

8. Elimination of lower loops, finishing these letters with a single stroke, especially at the end of words.

9. Tendency to connect small letters with low swung strokes, especially in *o*, *a* and *w*.

10. Tendency to make loops of *d*'s and *t*'s.

J. CLARK SELLERS

1. DESIGN: The variation in design of letters and the manner and the degree in which they vary from the system learned is the element which stamps individuality upon a writing.
2. SIZE, ECCENTRICITIES: The size of writing and especially of the capital letters soon change in the writing of an adult, from the system learned. This change may be to a higher or lower, broader or narrower letter, or to a combination of these variations in both capital and small letters.
3. PROPORTIONS: The relationship of the height to the width of a letter and these proportions to other letters rapidly deviate from the system taught.
4. SLANT: Variations in slant from the system taught are found in almost every adult writing. This is also true of the slant of certain letters as compared with other letters in the same writing.
5. SHADING: Some of the systems taught, especially the Spencerian and Old Round Hand, require increasing and diminishing shading at specific places. However, except for the writing of a few expert penmen, the regularity of the shading was not maintained. Individual pen pressure and shading is developed according to the taste and ability of the writer.
6. VIGOR: Dependent upon the speed, force, writing ability, and physical condition of the writer, vigor may be independent of any system taught.
7. SPACING: Uniform spacing of letters and of words is rarely maintained in adult writing.
8. ANGULARITY: The angularity at top and at base of letters, acute angles, narrow or round turns are characteristics which are the result of writing movement and habit.
9. ARTISTIC QUALITY: Some handwritings index themselves as being awkward or slovenly; or symmetrical, pleasing, and graceful, which express the taste of individual writers.
10. DIRECTION OF STROKE: Introductory and ending strokes, connecting strokes, the arc of up and downstrokes, and the direction of strokes, are susceptible of wide variation and are among the most individualistic traits in handwriting.

14. Describe and interpret natural variation in the handwriting of an individual.

JOHN L. HARRIS

There is a certain amount of natural variation in all handwriting, and one of its identifying characteristics is the extent and interpretation of the variations. The use of different forms of certain letters, modifications of movement, speed, slant, and connections are among those habits of writing which vary according to the individual. Natural variations of writing may be somewhat dependent upon conditions of the pen used to write and to outside influences. Change of occupation may cause a change in an individual's handwriting. Where handwriting identification is concerned it is absolutely necessary to determine the natural variations of the genuine writing, and this can only be accomplished by obtaining a sufficient amount of genuine handwriting written under various conditions.

Variations may be habitual, occasional, intentional, or accidental.

ALBERT D. OSBORN

The natural variation in handwriting results primarily, it seems to me, from the inability of most writers to produce accurately the forms as taught in school. After school age the earlier modifications of the system are crystallized into fixed habits. Then, with no further copies to follow or errors to be corrected, most writers will further modify other letters and will incorporate into their writing from time to time letters that strike their fancy. But with fifty-two letters, counting capitals and small letters, and the figures, which can be combined into countless combinations, a developed handwriting has the same individuality as the person's voice or physical appearance.

ALBERT S. OSBORN

Natural variation in the handwriting of an individual is a tendency towards illegibility at the end of words, especially at the end of lines. Change in size of writing due to position or room for a signature or other writing. Variation in design of certain capital letters. Variation in small *t* finished with Old Round Hand form or regular *t* crossing.

RAFAEL FERNANDEZ RUENES

Changes in handwriting are caused by the fact that the arm, hand, and brain that command them do not function as a machine, but are subject to anatomical, physiological, and even psychological variations of the writer. These variations, though modifying handwriting, are always identifiable, because the size of the hand and the movement of finger or arm are the same, and we know well that the graphic signs, whether angular or curved, are governed by the writing organ and the much or little ease or training that one has when writing.

The spirit, above all in emotional and nervous people, has fluctuations every moment, and these fluctuations are often transmitted to the handwriting.

The change that is produced in every person when passing from an age to another is remarkable, as much in the physical as in the psychological.

Handwriting changes as features change.

J. CLARK SELLERS

In considering this hand writing I gave specific attention to "Natural Variation", which is the natural deviations from a set model, caused by the inability of the finger, hand, arm, brain, and nervous system to combine into a perfect reproducing agency.

It is impossible to write naturally and exactly duplicate another's writing.

The kind and amount of these variations differ in different writers, and in reaching a conclusion as to the genuineness of any document, it is of the utmost importance to determine whether or not the writing comes within the natural variation range of a particular writer. These variations are usually in the size of letters and length of words, and such natural variations are actually indicative of genuineness.

Divergencies outside the limits of natural variation which violate the fixed and fundamental characteristics of the genuine writings are the strongest evidences of lack of genuineness.

ELBRIDGE W. STEIN

Natural variation in handwriting is the slight fluctuation in size, slant, proportions, and excellence of execution which are the result of imperfect harmony between the mental direction and the muscular energy, and between the different muscular units brought into action in the writing movement. Varying degrees of care are also the cause of certain variations. While the direction and extent of natural variation differs with different writers, its effect is mainly superficial, the fundamental part of writing habits are unchanged and remain the basis for identification. Natural variations in handwriting should not be interpreted as evidences of a different writer; neither should fundamental differences in a fraudulent writing be excused as natural variation.

JOHN F. TYRRELL

Natural variation in the handwriting of an individual has its source in the improbability of exact duplication. Exact duplication of form throughout a page of writing is practically impossible, even approximation calls for the highest degree of skill, while given characters on a page of writing by one person will show a characteristic similarity, they do not necessarily accurately super impose. It is natural that a moderate variation be present.

HERBERT J. WALTER

The term natural variation as applied to handwriting is used to denote the variation or modification of the characteristics in a handwriting that inevitably occurs in the same handwriting at different times and circumstances and using different materials, pens, ink, or pencil and paper. This not only applies to the formation or outline of the letters, but to variation in slant, size, speed, etc.

A writer may not always use the same form of the letters of the alphabet, many writers use several forms of some letters, and some writers use a number of different forms of different letters with facility and ease; therefore, several different forms of letters in that particular handwriting would be natural variation. A person may write small at one time and larger at other times, but there is a limit to natural variation, and, with a sufficient amount of writing, it is possible to gauge the natural range of variation in a handwriting.

There are examiners who excuse every discrepancy as “natural variation”, but to attribute an entirely different system of writing to that habitual to a writer does not come within the meaning of natural variation. The variations must come within the bounds of reason.

It is true that a person does not sign his name twice exactly alike, nor any two persons write a like. There are bound to be variations, and the term natural variation is applied to these.

JAY FORDYCE WOOD

Natural variation in the handwriting of an individual is that inevitable variation which occurs, and must occur, whenever a person writes, and this whether or not the writer has more or less individualized his writing by variation from system, form, or manner of writing, or maintains to a great extent the form and manner taught.

This variation in the writing of an individual is due largely to the fact that the human agencies which produce writing, the arm, the hand, and the fingers, in combination with mental and physical forces, all necessarily vary with changed conditions of various kinds constantly arising, and must therefore of necessity produce varying results in the individual's writing.

This variation may result from a variety of causes—deliberation or haste, a calm or agitated mental condition, a fresh or tired muscular condition, a strained or easy position in which to write, the character of the writing, the materials used— all of these things can and do produce an inevitable variation in the writing of the individual.

15. Discuss the added difficulties in imitating a continued writing instead of only a signature.

EDWIN H. FEARON

In imitating a writing the difficulty of excluding the imitator's habits of writing and including the habits of the writing to be imitated increases with the amount of writing to be imitated. Difficulty is further experienced by the fact that the imitator does not know all of his own characteristics nor all of the characteristics of the writing which he would imitate. In a signature there is a possibility with practice of omitting enough of the imitator's writing habits, and incorporating enough of the general appearances of the writing of another, to make it difficult at times for an examiner to arrive at a positive conclusion. In a writing of any length the struggle to omit usual habits and to include foreign habits increases in number, and the conflict becomes more apparent. The imitated writing has a strained and unnatural appearance in spite of the fact that there may have been considerable practice to perfect it. A person cannot change his writing habits at will any easier than he can change his language. An attempt to change writing habits in a writing of any considerable length will leave in the imitated writing the unknown writing characteristics of the writer who attempts the imitation.

JOHN L. HARRIS

Continuous writing has a greater combination of distinguishing characteristics than a lesser amount of writing. It would therefore be more difficult to imitate a writing containing added qualities, elements, and characteristics which would occur in a greater combination and number in an extended writing than in a signature. In all problems of forgery, however, the ability and skill of the person who attempts to simulate the writing of another must be given consideration, as well as the difficulty or ease with which writing to be copied is subject to simulation. It may be an easy matter to forge a simple signature, but the same individual attempting to forge a complex and extended signature would find it exceedingly difficult, if not impossible, to produce a reasonably good imitation of it.

SCOTT E. LESLIE

The greatest difficulty in imitating an extended writing rather than a signature is that there are many more things to keep constantly in mind, such as margins, arrangement, and punctuation, as well as more letter forms. A single signature may be very short, and an imitator may be able to keep up sustained concentration until a copy is completed, while in an extended writing there are lapses of concentration during which time the writer unconsciously includes some of his own writing characteristics.

ALBERT D. OSBORN

The difficulty, or, I believe, one can say the practical impossibility, of correctly imitating a continued writing results from the inability to correctly reproduce the variation present in any genuine writing. A single signature maybe so well written in imitation of a genuine one that one cannot say whether it is good or bad. However, here the imitator must correctly reproduce the form of a genuine letter or letter combination just once. In a continued writing the imitator to be successful would have to learn each letter and the variations of each letter and combinations of letters as made in the genuine writing and then employ these variations as they are used in the genuine writing. This is equivalent to learning to write like the one whose handwriting the writer is trying to imitate. This is practically impossible, and add to this the necessity of the writer to eliminate all his own habits and peculiarities while attempting to write like another, and one has some conception of the difficulty of correctly producing a fraudulent piece of continued writing.

ALBERT S. OSBORN

One of the principal added difficulties in imitating a continuous writing, like a whole page, is the necessity of incorporating in it natural variation in design and execution depending upon the position of the word in the line and the combination of various letters. Forgery of a continued writing usually shows similar words too much alike and also often fails because the imitator did not have the design of all of the written characters, especially when they were made in certain combinations. A continued writing also almost certainly will show more conspicuously than a single signature the difference in the degree of speed and freedom with which the writing is written as compared with the genuine writing imitated.

ELBRIDGE W. STEIN

An imitation of a writing entails two main difficulties: the first is to include in the imitation all of the habitual qualities and characteristics of the writing imitated, the second is to eliminate from the imitation all evidences of the writing habits of the imitator. A continued writing increases both of these difficulties because of the necessity for sustained concentration on those fundamental writing habits. An added difficulty in successfully imitating a continued writing is the use of the right amount of variation in different parts of the writing. An imitated writing of any length usually fails in the degree and direction of variation, so that a group of the same words from such a writing has a sameness or stereotyped effect not found in the genuine writing.

JOHN F. TYRRELL

The difficulties in imitating a signature are multiplied by the added requirement imposed by the written page. In simulating a signature the entire subject to be copied is before the simulator. The difficulties presented in securing the letter forms, words, and combinations necessary to the construction of a page of writing are almost insuperable. It has only to be tried to be appreciated.

HERBERT J. WALTER

If it is difficult to imitate a signature successfully, and this fact is universally admitted, it is infinitely more difficult to imitate a continued writing, such as a letter, will, or similar document. The reason is not hard to find. In copying and imitating a signature two points must be kept in mind: the writing must resemble and contain the characteristics of that imitated, and there must be kept under control and eliminated entirely the habits of writing of the imitator, and the same is true of a continued writing, and this effort cannot be successfully maintained in a continued writing; if the forger relaxes one moment, force of habit will inject his personality into the writing. Imitation is a difficult matter in a short signature, and this is immensely increased in an extended handwriting.

One of the most difficult qualities in a handwriting to imitate is the movement or manner of writing and the correct application of the pen to the paper. In a short signature a natural writing movement may be employed successfully, with inevitable variation in other respects, such as the forms of the letters and so on; therefore, in a continued writing the movement employed will not be a uniform rate of speed,

a drawing movement will predominate, with stops and starts in unnatural places; discrepancies in letter formation, size, and slant. The beginning and ending of letters will indicate the copying method and show deliberate and careful pen motion. Small and frequently used words, *and, the, you, we, my, etc.*, usually have a stereotyped appearance like rubber stamp impressions; the imitation will be a piece of drawing and not a piece of handwriting. There will be divergencies in the forms of letters, and a lack of variation of the ink will all indicate unnatural writing. Errors of omission and commission are bound to occur.

16. How is force, freedom, and speed shown in handwriting?

J. CLARK SELLERS

Force, freedom, and speed are shown by a vigorous, coordinated, gliding movement, in which a free flowing line quality and a minimum of movement impulses are the most significant elements. Such a writing is characterized by an absence of tremulous, halting, weak lines.

Among the definite indications of force, freedom, and speed are flying starts and endings, shaded strokes, downward endings of small letters *y* and *g*, strong, definite slash crossings of *t*'s, and dottings of *i*'s.

ALBERT D. OSBORN

Speed and freedom are shown in one particular by fine beginning and ending strokes. Such strokes indicate that the pen was in motion before it touched the paper and also in motion as it came off the paper. Smooth, even lines indicate a freedom in the writing, as an even line is made more easily when the pen is moving rapidly over the paper. Graceful shading also indicates speed in the writing and smooth flourishes and smooth and evenly made rubrics. The indications that the ink failed to flow in parts of a writing often show speed, as the pen was moving over the paper with so much speed that the ink could not flow fast enough. Force is shown in even shading or short sharp shadings, explosive shadings.

JOHN F. TYRRELL

Force is exhibited in the strength displayed, the originality of form, the unhesitating attack and conclusion. Freedom is shown in the unrestricted movement, the dash, and versatility. Speed by the slighted form, the smoothness of line, placing of shade (where employed), turns, capital, combinations; sometimes by partial illegibility.

JAY FORDYCE WOOD

More than anything else force, freedom, and speed are shown by line quality of writing, which is that thing which shows the manner in which the writing is produced. Smooth, rapidly written lines in variable indicate freedom; and where, in connection with this freedom, the curved strokes show a gradual increase and decrease in the strength of the line as pressure is applied or released, skill, on the part of the writer, is plainly indicated.

Another infallible indication of freedom and speed is found in the writing of skillful writers where the terminals of strokes are pointed or flying, showing a commencement or ending "in the air", before the pen comes in contact with the paper in beginning terminals and after contact.

ELBRIDGE W. STEIN

Force, freedom, and speed are shown in handwriting by the smooth and vigorous quality of the pen lines, by the connected letters in words or connected small letters to capitals, which as a whole exhibit a continuous, uninterrupted, rhythmic movement of the pen. These qualities are also shown by the smooth and consistent character of pen emphasis or shading on downward strokes, especially curved downward strokes. Initial strokes which show that the pen was in motion before it came in contact with the paper and terminal strokes which show that the pen was raised from the paper while it was still in motion are further evidences of freedom and speed. Designs of letters and connections between

letters often indicate that they were developed in the way they appear in the writing because of speed. Flourishes and embellishments are usually associated with speed and freedom.

ALBERT S. OSBORN

Force and freedom and speed are shown in writing by the continuity of curves and stops and hesitation at the proper points. A continued, smooth, curved stroke containing a graduated shading, especially a shading with gradual increases and gradual diminishes on the curve, is almost positive evidence of continuity and a degree of speed which insures smoothness. Forceful writing, as a rule, is of fairly good size and shows frequent and quite pronounced shaded strokes. Grace lines or controlled flourished strokes at the end of signatures or words is an indication of force, and diminishing points at the beginning of strokes and at the ending of strokes, showing that the pen was in motion before it reached the paper and was taken off from the paper while still in motion, indicate force and speed. Freedom in writing is perhaps indicated by continuity without pen-lifts and the writing of long words where the last of the word is as freely written as the first, indicating the cooperation of the arm with the hand in the writing operation.

17. Discuss flourishes or grace strokes as identifying evidence in handwriting.

ALBERT S. OSBORN

Well executed grace strokes or flourishes at the end of a signature no doubt afford some protection against forgery, especially if these strokes are shaded. Long, free *t* crossings also serve to identify handwriting and make it difficult to imitate handwriting containing strokes of this kind. Free and limited flourished strokes, especially at the end of capital letters, are also a certain protection against imitation. Any quality in writing that requires free and unrestricted motion is more difficult to imitate than perhaps any other quality in handwriting.

ELBRIDGE W. STEIN

Flourishes or grace strokes in writing usually grow out of the writer's artistic sense or ability to add a touch of beauty or embellishment to his writing. They are generally made rapidly and sometimes with a skilful shading. Their identifying evidence is based mainly on the way they are made. Their very nature being of an unnecessary character implies carelessness and lack of attention to their execution, so that when these strokes contain indications of a slow, careful movement, or retouching, or additions, or pen raisings, they point strongly toward an imitated writing. These same strokes, especially if [they are] complicated in design or require a high degree of skill to execute, may point to genuine writing when they contain the habitual and expected qualities of the genuine writing.

HARRY E. CASSIDY

Grace in writing is an accomplishment regardless of whether natural or acquired, which is the hardest obstacle the imitator of another's writing must overcome. It naturally follows that the presence of grace and beauty produced through the skill of a writer is a personal quality and has great evidential value. Free movements, well controlled flourishes, consistently produced in an individual manner gives handwriting a personal quality likely to be the most difficult thing the counterfeiter must imitate. Both flourishes and grace in writing give it those qualities and characteristics, which if not viewed from the "General Appearance" alone, will materially aid a competent observer in establishing genuineness. There is nothing about any handwriting of a more personal nature than those almost comical little affectations, twists of the mind, conceptions of form which are produced unrestrainedly and skillfully.

18. What are the characteristics of illiteracy in handwriting? (Other than language, grammar, spelling, use of capitals, etc.)

ALBERT D. OSBORN

One characteristic of illiteracy in writing is a tendency to write large with the letters spread well apart. It is also usual to find many pen-lifts, as though each letter was a separate effort; also a slow and halting movement and many times a lack of variation much more noticeable than in more skilful writings.

SCOTT E. LESLIE

Illiterate writing is slow and hesitating. The deliberateness and uncertainty of line indicates a slow and possibly sluggish mentality. The pen is frequently lifted in unnatural places. An illiterate writer also generally adheres closely to the letter forms that he was taught and seldom in his normal writing uses more than one style of letter. Illiterate writing often contains qualities that are found in forged writing.

ELBRIDGE W. STEIN

Illiteracy in handwriting is shown by a general clumsiness in the use of a pen, by a childlike writing movement, and sometimes by the proportions of the letters and the roundness of the turns. A heavy-handed, irregular pressure on the pen combined with a disregard for the baseline may also sometimes indicate a degree of illiteracy. An illiterate writer usually adopts letter forms in a haphazard way and not according to a system. It is evident that these forms may come from many sources, some of which are his own invention, so that the hodge-podge of letter designs points toward a degree of illiteracy.

ALBERT S. OSBORN

Evidence of illiteracy in handwriting, aside from incorrect spelling and language, is shown by adherence to copybook forms slowly executed, with the absence of variation or development of individual characteristics in the particular handwriting as compared with the developed handwriting of a writer who has written much, whose writing varies in many particulars as compared with the system learned. Illiteracy is also shown by faulty arrangement, and as a rule illiterate writing is larger than the writing of a trained writer. Some illiterate writers are unable to make all of the forms, especially those that are infrequent, and sometimes writing of this kind contains errors in form that were never corrected in school.

19. How is disguise in handwriting distinguished from natural variation?

EDWIN H. FEARON

Disguise consists in the use of some awkward or grotesque design or some change in slant, size, or proportion for the purpose of concealing identity. In my opinion, to distinguish disguise there must be sufficient writing to show the normal writing habits of a writer. As soon as the normal writing habits are known, unusual departures from the normal writing habits may be classified as intentional differences, the purpose of which is to conceal identity. The question of whether an awkward form is accidental and without intent to conceal identity, or was made with intent to deceive is dependent, in my judgment, upon discovering sufficient repetition of the abnormal differences to make it reasonable to believe that the use was not an accidental one.

JOHN L. HARRIS

In disguised handwriting the obvious and superficial characteristics such as slant, size, form, and proportion are altered depending on the ability and skill of the individual and also the amount of writing to be disguised. Very few individuals are familiar with the unconscious emphasis resulting from habit which is expressed in every handwriting as individual characteristics. Natural variations in writing do

not ordinarily go to the extremes of disguised writing. It retains the rhythm, legibility, and proportions which are purposely dissimulated in disguised writing. Disguised handwriting is identified by its retention of individualities constituting unconscious emphasis.

ALBERT D. OSBORN

Disguise can be distinguished from natural variation in handwriting by its inconsistency. This in consistency may be in too wide a variation in the same letter, as for example, making a capital S in the enlarged form of the small letter and then making a capital in the enlarged form of the small letter but violently backhand. The use of an entirely different form of the letter would be consistent with natural variation. Slant in handwriting is usually consistently the same or if it varies it will vary throughout the writing. As about nine out of ten writers in attempting a disguise write backhand, a writing which begins backhand and slowly becomes vertical or even turns into one with a distinct right slant illustrates an unnatural variation in writing.

ALBERT S. OSBORN

Disguise in handwriting is usually shown by lack of uniformity of the writing with it self if it is an extended writing. Disguise is also shown by lack of uniformity in movement or speed; invented and unnatural letters are written more slowly. One of the common characteristics of disguise in continued writing is a change of slant, especially vertical or back handwriting written by one who usually writes a slanting hand. Where the ends of sentences or the ends of pages show a reversion to natural slant, this is an almost certain indication of disguise. Another characteristic of disguise is the invention of grotesque forms utterly inconsistent with the other forms in the writing, and of course printed forms usually show an attempt to disguise the natural writing of the writer.

RAFAEL FERNANDEZ RUENES

In disguising it is attempted to hide the whole script, generally by diminishing the speed, changing the slant, increasing the pressure, and disfiguring the forms of nearly every letter. It is only the involuntary or unconscious strokes, and often one or more letters and even words, that remain without disfiguring, which are just those that serve the investigator to find the author of the disguise.

On the contrary, in natural variation, as those variations are subject to the natural anatomical, physiological, and even psychological, development of the subject, there is always a nexus of the same elements of individual characteristics (endings, pen-lifts, forms of many letters, etc.) which give the investigator the evidence of the truth.

J. CLARK SELLERS

Disguise in handwriting is distinguished from natural variation by the unnatural features incorporated in the disguised, writing.

Natural variation in handwriting is the outgrowth of habit, and is characterized by freedom in writing, by consistencies in line construction, and by unconscious or automatic writing; whereas, disguise is the outgrowth of a deliberate attempt to change the appearance and characteristics of one's writing.

Disguise is indicated by features which superficially change the pictorial appearance of the writing, as by a change in slant or size, by the addition of superfluous strokes which do not add to the readability of the letter, by inconsistencies, by slow writing in which it is evident the writer is thinking more of the letter forms and the writing process than of the normal routine of choosing words to express thoughts, in which the writing process is left to the reflex centers and the writing proceeds as a habitual automatic act.

ELBRIDGE W. STEIN

Disguise in handwriting is generally recognized by a lack of consistency between different parts of the writing. Irregular slant from backhand to forward is not unusual. Disguised writing may contain letter forms, especially capitals, much modified even to the extent of being fantastic and some may be pure inventions of the writer. There is also likely to be a studious carefulness or restraint in the writing operation, so that the writing as a whole has an artificial appearance.

Natural variation is almost the opposite of disguise, in that the general qualities and character of the handwriting remain constant with but slight fluctuations in size, proportions, and the care used in the writing. The variations in natural handwriting are slight, superficial differences between parts of the writing with no pronounced unnaturalness in the writing movement. Disguise is marked by inconsistency in slant, size, spacing, shading, alignment, and the designs of letters.

JOHN F. TYRRELL

Disguised handwriting usually will have some definite indication of a greater ability than is pictorially present. The questions to be considered are size, shading, pen, position, form, and slant. Natural variation does not greatly differentiate the various repetitions of a letter or word. They are not inconsistent with each other, but are consistent with the writing of the page as a whole. Disguised writers usually resort to extravagant, inconsistent forms; change of slant, unusual pen, the inconsistencies of a disguised writing are usually apparent, partly for the reason they are not the result of long and continued practice, are not properly established. It sometimes happens, however, that a writer resorts to another's writing for his characters and thus maintains a degree of consistency. It is possible to so disguise a writing that its authorship will remain in doubt.

HERBERT J. WALTER

Natural variation in handwriting may include a number of different forms of letters, a change in the slant and size, etc., and the same may be true of a disguised handwriting, but in the genuine there is usually self-evident signs of naturalness, and this will not be true of disguised handwriting. Disguise, of course, is deception in some form, and a disguised handwriting to be successful must be changed from the natural style to serve its purpose, and this is usually apparent in the written product.

If the natural speed of a writer using a disguised hand is not slackened, there will likely be discrepancies in the letter forms. There may be inconsistent sizes to some letters and words or in the first letters of certain words, the writing will not be written at a consistently uniform rate of speed. Some words will be labored, others written more freely. Natural variation in handwriting does not embody the unnatural qualities inherent in disguised handwriting, and a disguise is difficult to maintain in a continued writing, and tell-tale personal habits are likely to creep in if the writer relaxes his vigilance. If a writer is naturally a fast writer, the disguise will probably lean to slow writing, and the difficulty will be to maintain this unnatural speed, and such writing frequently reverts to the original copybook style originally learned.

In normal handwriting the variations are natural. If the slant is changed, it will not affect the other writing qualities; if written smaller or larger the habitual forms and other characteristics will be employed, and the writing will have a natural appearance. But this will not be true in a disguised handwriting. There is in natural handwriting variation what the term implies, a variation in a naturally written manner, and in a disguised handwriting the fact is usually obvious by the unnatural appearance of the writing as a whole or of words or parts of the writing, lack of uniformity of size, speed, spacing, slant, etc, freak letter forms, etc.

20. Discuss the consideration to be given to the inevitable similarities between a disputed and a standard writing.

EDWIN H. FEARON

Two different writings in the same language will bear certain general similarities, and, in my opinion, testimony given to show that two writings were written by different persons is given strength when the witness indicates that he has taken this fact into consideration. The failure to appreciate the real value of similarities which may exist among a certain group of writers may lead an examiner to believe that two different writings were written by the same person. Similarities which may exist among any particular group of writers have value only when they exist in combination with personal characteristics. It is then that their importance may be vital in showing that two writings were written by the same writer. When all similarities are eagerly cherished to show identity, and all differences are as eagerly

analyzed as disguises, the conclusion naturally will lead in the direction of believing that any two writings in the same language were written by the same person.

JOHN L. HARRIS

Any disputed writing would have some similarities compared to genuine writing. Identification is established depending upon the number of similarities in combination and the weight and emphasis to be given them. Handwriting identification may be classified as genuine, forgery, or doubtful.

If genuine, the similarities exist to an extent that would relieve any reasonable doubt.

If a writing is a forgery, dissimilarities prevail to an extent that would make it unreasonable to assume any other opinion.

Doubtful opinion is usually due to lack of sufficient disputed writing or genuine writing available for comparative purposes.

In such instances, emphasis and weight cannot be placed upon insufficient combinations, habits, and individualities which are not present to establish identification.

SCOTT E. LESLIE

There are bound to be similarities in the writing of two individuals in the same language. These similarities may be quite striking in the case of persons who have learned the same system of writing. Such consideration must be given to them, however, as will enable the examiner to properly interpret them. If they are national or system characteristics or merely accidental coincidences, it is very important that they be not mistaken for individual qualities. Similarities which link two writings together as having been written by the same person must be of such a highly personal and peculiar character, and insufficient number, to lead to the conclusion that in combination they could not have occurred in two different writings.

ALBERT D. OSBORN

Because two short writings are alike in some common forms, and even with no apparent differences, it does not follow that they were written by the same hand. This is especially true if the writing is quite limited in amount, for the similarities will be sufficient to exclude any other writer than the one suspected. If such similar features are in system forms they have practically no value whatever, and if in the usual deviation from system forms have little value. The words, "For Deposit, John Brown" may be quite similar to the writing of these words by Henry Smith, but unless real individual habits connect the two, mere similarity of common forms cannot be depended upon.

ALBERT S. OSBORN

Writings in the same language necessarily show many similarities, and errors in the identification of handwriting are mainly due to a lack of proper consideration of this fact. The ability to determine the comparative significance of handwriting characteristics is the most difficult part of the process of identifying handwriting. Some general knowledge of systems of writing and what is to be expected in a particular writing is almost necessary in giving proper consideration to the significance of certain similarities in two handwritings which were actually not written by the same writer. The common error in identifying handwriting is assuming that all differences are disguises and that all similarities are individual characteristics. Untrained observers look for similarities of any kind, many of which have no more significance as identifying a handwriting than black hair has as identifying an individual.

J. CLARK SELLERS

All writing in the same language will show some similarity, else it could not be read. Writers who write the same system will incorporate in their writing some system similarities. Persons in the same environment, such as telegraphers, often adopt a similar style of writing; and frequently members of the same family or business associates consciously or unconsciously imitate one another's handwriting. Even an ordinary forgery, as well as the clever one, contains similarities to the genuine writing, otherwise the forgery would not pass as genuine. All of these similarities are almost sure to be superficial, pic-

torial similarities, which the qualified examiner will not confuse with the real fundamental, individual characteristics composed of a number of peculiar elements, features, and qualities, a sufficient combination of which will enable the proper identification of any writing.

General features are not sufficient upon which to predicate a conclusion of genuineness. It is necessary to find a combination of peculiar characteristics and at the same time an absence of unexplained divergencies. It is well to remember that a few fundamental divergencies will outweigh a large number of similarities.

Handwriting identification is always a double process, a minute examination and consideration of the dissimilarities as well as the similarities. The only safety valve is the ability to accurately observe and to correctly appraise the real identifying characteristics.

ELBRIDGE W. STEIN

The significance of similarities between a disputed and standard writing depends upon their cause. If the similarities are of the kind which result from a more or less successful imitation, they mean nothing as indicating a genuine signature. If they are the qualities and characteristics of rapid, skilful writing and are inconspicuous and difficult to reproduce, they should receive their full identification value, which may be very high. A fraudulent imitation is almost sure to be like the genuine writing in some ways. Alphabetic sequence and the general design of letters, with an occasional obvious peculiarity are the main similarities found in imitations. These similarities should be discussed in testimony when the conclusion is against genuineness.