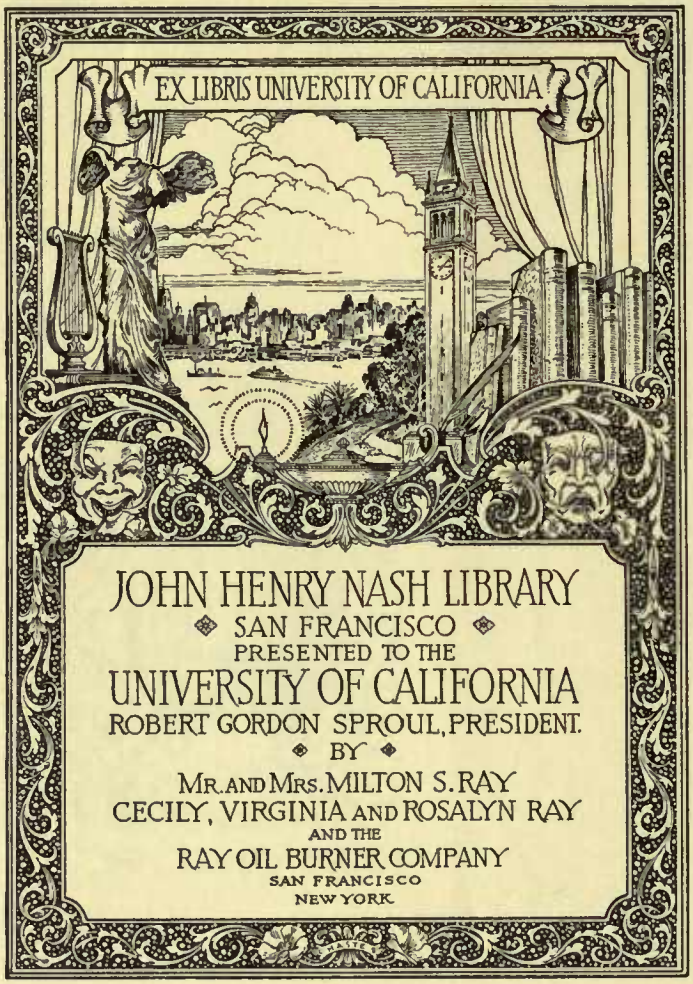

MODERN TYPE DISPLAY
AND THE USE OF TYPE ORNAMENT.

MODERN TYPE DISPLAY
AND THE USE OF TYPE ORNAMENT

WRITTEN AND PUBLISHED BY
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TERRACE, EDINBURGH, 1911.

PREFACE.

WRITERS of a former age now somewhat remote dedicated their books to the "gentle reader," hoping to bespeak his favour by kind and conciliatory words. Authors of a later date have allowed this fashion to fall into disuse, and yet the writer is still as dependent upon the reader as ever. The two together produce a collaboration which should be mutually helpful.

In this preface the author desires to indicate his views, and to apologise for the errors of omission and commission which he knows in his heart can hardly escape the notice of the critical reader, no matter how gentle he may be. The author occupies a privileged position in that though he enjoys unlimited freedom of speech, he is not subject to immediate contradiction. He hastens to assure the reader that if he seems dictatorial, it is a fault of style rather than of spirit or intention.

It is not to be expected that the principles and especially the practice illustrated in a book dealing with that debatable quality taste, *should be accepted with anything like unanimity by those whose daily business is type-display. This book has been written with the full consciousness that in stating the case for* Modern type-display and the use of type-ornament, *the exposition is not a complete one. Such a complete statement could only be made by a universal genius in the printing art, and such has yet to be found. Other methods than those given here will find other exponents.*

The aim of the work is to call the reader's attention to some possibilities in the arrangement of type and ornament. To do this satisfactorily, it was necessary to recount in a brief way the history of written and printed alphabets, and to say something of the construction of type-ornaments and their combinations. Much of the matter included had to be obtained from both ancient and modern books on the subject, a list and acknowledgment of which appears on page viii.

The first seven plates of early printing are here reproduced by kind permission of the Keeper of Printed Books of the British Museum, and W. Rae Macdonald, Esq., to both of whom the author renders his grateful thanks. He hopes that some of the methods suggested may appeal to his readers as being at least different from, if not better than, the usual trade practice. That much misused word artistic *has been avoided in the book, which is concerned with the practical questions of clearness and legibility, rather than with anything fantastic or striking. The claim of ornamental enrichment has of course been admitted, but only in its legitimate place.*

The inclusion of advertisements of type, paper, and ink as plates in the book requires no apology. The volume was called into being for the express purpose of influencing type-display, and is not meant to be an academic production which has no connection with everyday printing.

H. T. W.

5 Craighouse Terrace,
Edinburgh, 30th November 1911.

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MODERN TYPE DISPLAY AND THE USE OF TYPE ORNAMENT

CHAPTER ONE—THE HISTORY OF THE ALPHABET.

STAGES:—1. PICTOGRAPHIC; 2. HIEROGLYPHIC; 3. HIERATIC; 4. DEMOTIC; 5. SYLLABIC; 6. ALPHABETIC. THE DIFFERENT ALPHABETS: 1. INCISED ROMAN; 2. PEN-WRITTEN ROMAN; 3. RUSTIC; 4. UNCIAL; 5. HALF-UNCIAL; 6. ANGLO-SAXON; 7. CAROLINE; 8. ROMAN SMALL LETTERS; 9. ITALIC; 10. GOTHIC. EVOLUTION OF LOWER-CASE LETTERS FROM CAPITALS. THE INFLUENCE OF THE REED-PEN IN FORMING THE CHARACTER OF MS. LETTERS. TYPE FORMS DIRECTLY DERIVED FROM HAND-WRITTEN LETTERS.

ANY consideration of the subject of type and its display would be incomplete without some reference to the origin of the letters used in modern printing.

A long period of time lies between the compositor of to-day and his early prototype, who first attempted to communicate with his fellows by means of graphic symbols. Antecedent to this attempt at communication by means of graphic signs was the power of audible communication, which must have developed slowly during many centuries. Communication by means of speaking and hearing had many grave defects, being limited by time and distance. The recognition of these limitations may have suggested a means of communication through graphic signs, which, inscribed upon suitable surfaces, could be carried to and understood by others at great distances.

IT is not to be supposed that these graphic symbols in their completed form were the product of a single effort. We know, for instance, that the earliest graphic communications consisted of rude diagrams of men, animals, and things, the significance of which was understood and interpreted by those to whom they were addressed. These primitive drawings were not realistic in any modern sense, but were sufficiently accurate to convey the meaning intended by their writers. Such pictures undoubtedly marked the first stage in the evolution of the alphabet — when drawings were used to signify the things pictured. Palæographists term such drawings Pictographs. This was the form of graphic symbol in use by the early Egyptians, whose writing of a date as early as 5000 B.C. existed in three forms, Hieroglyphic (or pictographic), Hieratic, and Demotic.

In the Hieroglyphic form, a carefully outlined representation stood for the thing itself; writing of this kind was used mostly for monumental inscriptions. The Hieratic was a simplified form of the Hieroglyphic, in which the main lines or leading curves only were used, instead of the complete outline of the thing. This kind of writing was used by the priests for sacred books and records. The Demotic, as its name implies, was used by the people generally, and was based on the Hieratic form, but was still simpler and more "cursive" in character. It was employed for ordinary letter writing and for business. Though these three different kinds of writing were current at the same time, they were derived the one from the other, and occupied the same position as capitals, lower-case letters, and ordinary handwriting do with us. Each was suited for a special purpose, as in our own day Roman capitals are used for dignified and monumental inscriptions, lower-case letters (mostly) for the printing of books, and ordinary writing for correspondence.

These early forms of graphic expression or writing were rather limited in use. So long as things were being written of, no special difficulty presented itself, but when ideas and abstractions required expression, the inadequacy of the system became evident. For example, the word *calf* in the Hieroglyphic form was represented by an outline drawing of a calf. In the Hieratic form

the constructional or characteristic lines only of the calf were represented, while in the Demotic form these lines were still further simplified and conventionalised. But when such an abstraction as *thirst* required expression, it was represented by a calf running towards water; thus two forms—a calf and water—were necessary for the expression of this single abstraction. The multiplication of these symbols increased to such an extent that no fewer than one thousand seven hundred of them are known to have been in use during the Hieroglyphic period.

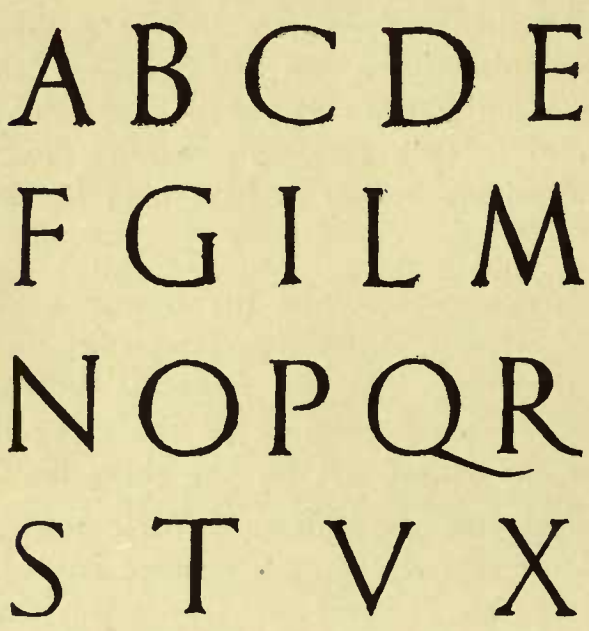
HE second stage of advancement towards the formation of the alphabet was reached when a *single* sign represented the *sound* used in naming the thing. At this stage the written symbol had little relation to the appearance of the thing it represented; it stood for the *sound*, not for the thing itself.

In the third stage it was recognised that the different syllabic sounds were few, and that each *syllable* could be represented by a separate symbol. That syllables were composed of a very few different root-sounds was the next and last discovery which led to the formation of the first alphabet. This was composed entirely of consonants accented in different ways. The production of separate letters for vowels came later.

The alphabet which we use consists of twenty-six letters or signs. It is the most important of the two hundred and fifty alphabets which have been in use since the first one was invented. Some fifty of this number are still current, more than half of these being of local importance only. The three alphabets which have had the widest distribution and have been the greatest means of spreading knowledge and chronicling events, are the Arabic, the Chinese, and the Roman. The forms which the individual letters of these alphabets have assumed at different periods are, of course, endless, but it may be interesting to discuss and to illustrate some of the typical manuscripts used by scribes from the second to the sixteenth century.

The Roman alphabet has been spoken of as the lineal descendant of many of the alphabets used successively by the Egyptians, Phœnicians, and Greeks. In its early form it consisted of some twenty-two letters, to which

some were added at a later period, while others were discarded. For example, the seventh letter of the old alphabet of Italy was Ⱨ (Z), a form adopted from the Greek alphabet. This letter not being required by the Romans, was dispensed with, and a new symbol (G) occupied its place. This new letter was, in fact, the greatest innovation which occurred in the Roman alphabet; it was a sign to represent the hard C sound, and the rejection of Ⱨ made room for the new symbol G. The Roman alphabet was further added to when the new form J was introduced. I formerly was used for both sounds. At a still later period a difference was made in the representation of two sounds formerly expressed by V, now represented by U and V. The latter was used at the beginning of a word, and the former elsewhere. The origin of the double V or double U is self-evident. The seventh letter of the old Italian alphabet, Ⱨ or Z, which had been discarded to make room for G, was reintroduced at the end of the Roman alphabet; it was required for the transliteration of Greek words. Its introduction from the French into the English alphabet dates from the fifteenth century. W and & were both originally ligatures; the former is now included as a letter.



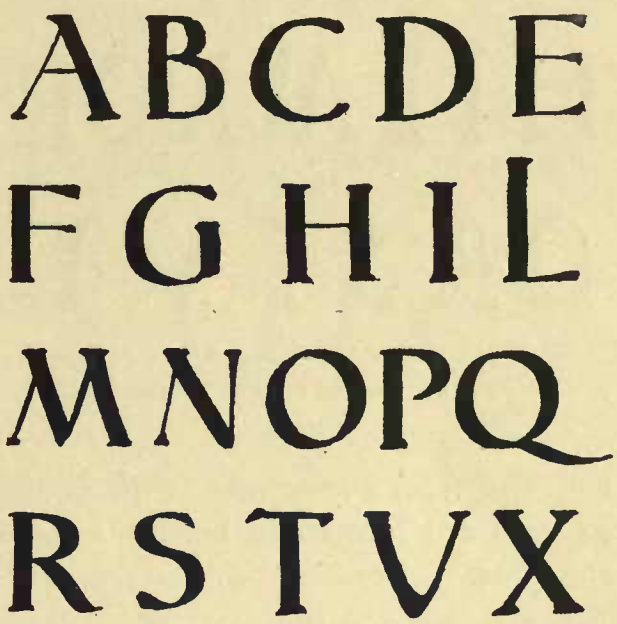
INCISED ALPHABET FROM THE TRAJAN INSCRIPTION AT ROME. 114 A.D.

FIG. 1.

The series of incised Capitals shown in Fig. 1 are copied from the base of the Trajan Column in Rome. This monument was erected in 114 A.D. to commemorate the victories of Trajan against the Dacians. As these letters are cut in stone, some differences are noticeable between them and printed or written letters. Attention might be drawn to the proportionate width and height of the individual letters. A comparison between this

alphabet and any "old style" fount of capitals will show that, while the latter are all nearly the same width (except M, I, J and W, which cannot be expanded or contracted *ad lib.*), the individual letters in the Trajan alphabet are very varied in width. B, E, F, L, P and S are narrower, and C, D, G, N, O, Q, R and T are wider than the normal. Each letter has thus a characteristic width, which has much to do with its characteristic shape, and this materially assists identification, especially when the printing is viewed from some distance. With the exception of this incised one, all the alphabets described in this chapter are reproductions of MS. letters — that is, they were written originally by hand.

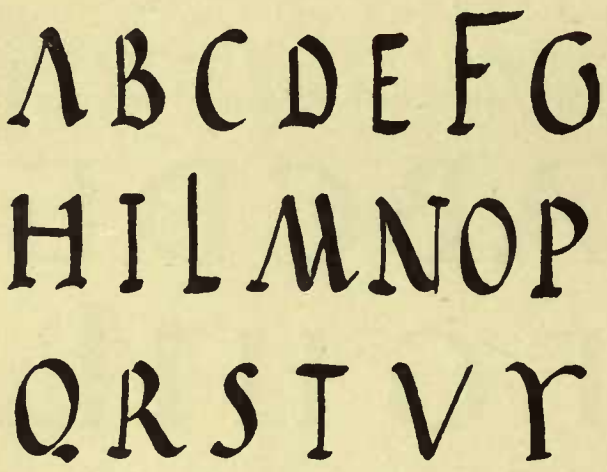
The pen-written Roman alphabet (Fig. 2) was used by Roman penmen for the writing of important books entirely in capitals, since no lower-case or small letters were in existence at that time. We can here trace the commencement of the alterations of form which ultimately led to the making of a complete alphabet of small letters. Notice that the letters are freer in form than those of the Trajan inscription ; they have lost something of the dignity of their ancestors, the incised letters. The beginning of the thick member of A shows its pen origin, while the upper bow of B is distinctly smaller than the lower one. The upright member of the L is higher than the upright members of the other letters, while V seems as if it could hardly make up its mind whether to appear as V or U. Most of the other letters are good pen translations of the stone-cut forms, upon which they are based.



PEN-WRITTEN ROMAN CAPITALS
OF FOURTH OR FIFTH CENTURY.

FIG. 2.

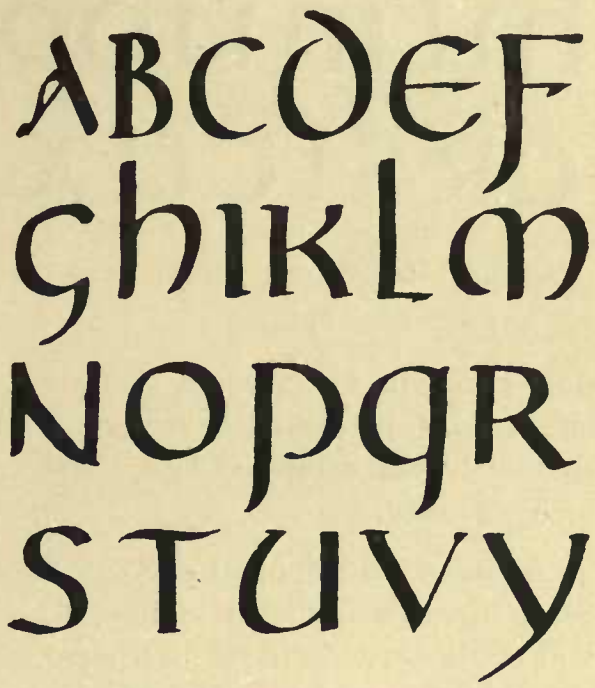
The Rustic Roman capitals (Fig. 3) are still less formal than those of the last alphabet. They bear evidence of having been printed or written more quickly and with less care than those shown in Fig. 1. It will also be noted that their individual distinctive proportions have been lost, and it may be concluded that they are the work of commercial scribes rather than of literary pen craftsmen. Mere utility, divorced as far as possible from art craftsmanship, seems to have been the object of their writers. In A the crossbar has been dispensed with as being unnecessary to distinguish this letter from any of the others. The "stroking" of the A necessitated the lifting of the pen, and the commercially-minded scribe omitted it and thus saved so much time. In the B the upper bow has become more of a loop and less of a bow, while the lower has become proportionally larger. In the F the top horizontal member has been considerably lengthened, becoming, for this reason, more like the lower-case f. The upright member in L retains its extra height, while its horizontal member has become shorter. The long ornamental tail of Q has been cut off short, while the Y has been borrowed from a form used in the Greek alphabet. The whole alphabet, with its narrowed letters and hurried serifs, suggests a desire to economise space and time.



RUSTIC CAPITALS, ROMAN,
THIRD TO FIFTH CENTURIES.
FIG. 3.

Uncial letters (Fig. 4) were well developed as early as the fourth century, and from that time till the eighth century were in use for the writing of the finest books. They were originally one inch high, as the name "uncial" implies. It will be noticed that some of the letters originally composed of straight lines are now formed of curved ones. The reason for this is not far to seek; it is due to the desire for increased speed and ease in writing.

D, for instance, could be more easily made by one curve than by a straight and a curved line together. It was simpler to write E by means of one curve and one straight line than by means of four straight lines. The other new forms are A, which in this alphabet is no simpler, however, than the earlier form, and g, h, m, q, and u. A reference to modern lower-case letters will show that the forms of some of these are identical with the new characters in this Uncial alphabet. Any compositor may see that this is a mixed alphabet composed partly of capitals and partly of lower-case letters. It must be remembered that at first all letters were used as small letters, and only gradually did the practice of employing capitals as initial letters come into use. In the earlier centuries initial capital letters, several times larger than the text, were employed to mark the beginnings of paragraphs. After the tenth century the initials became larger, while from the fourteenth century onwards they were often so large that one sometimes occupied nearly a whole page in a MS. book. Some of these initial letters are so ornamental and are surrounded by so much foliage as to make it well-nigh impossible to decipher them. Only nine of the letters of this alphabet may be said to be pure capitals ; the others all show a tendency to the small or lower-case form. The alphabet is thus a hybrid, being partly capital and partly lower-case in form.

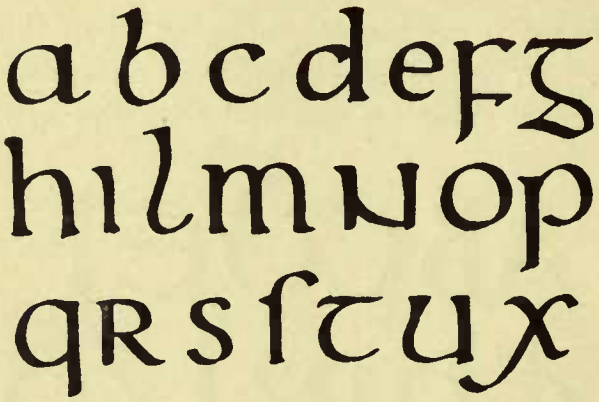


UNCIAL LETTERS, ITALIAN, OF SIXTH AND SEVENTH CENTURIES.

FIG. 4.

In the Half-Uncial English series (Fig. 5) we find a further development towards the formation of a complete alphabet of small letters. Only two are now distinctly of the capital form ; these are N and R. The form of A has

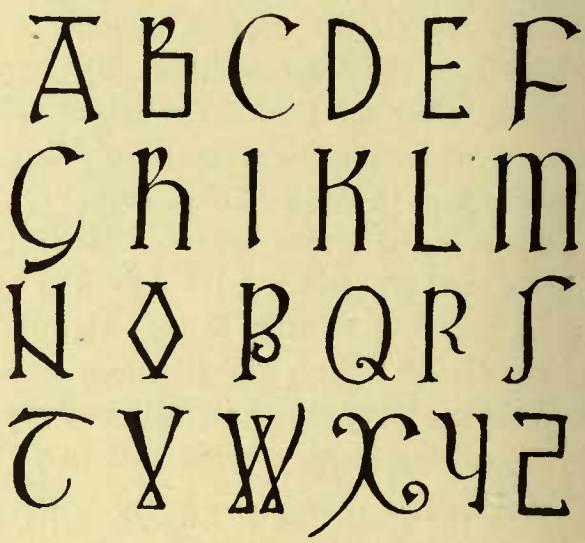
completely changed; it is now composed of a circle with a vertical member and a connector; b has lost its upper bow; c, d, and e are now true lower-case letters, while f is still in a hybrid state. The final lower-case form is suggested in g, and h, i, l and m are all truly small letters; p, q and u belong to the lower-case, while s appears in two alternate forms. A curved capital form of t is still used, and the letter x is more "cursive" in character and in harmony with the other letters than either an old style or modern type x. Half-uncial letters were used for less important documents and books from the sixth to the ninth centuries. This kind of writing was introduced into Ireland in the sixth century from the Continent, and by the seventh century it had developed into a style which, for beauty of form, has never been surpassed.



HALF-UNCIAL, ENGLISH, EIGHTH CENTURY.

FIG. 5.

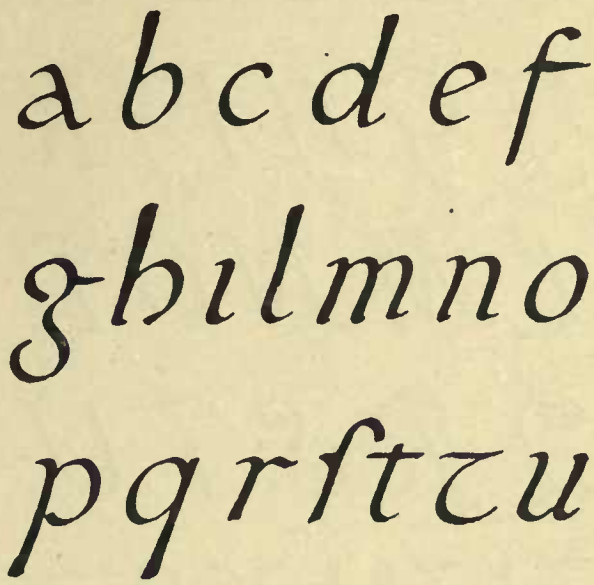
An interesting alphabet of Anglo-Saxon Capitals is shown in Fig. 6. One might be pardoned for describing them as a "mixed lot." These forms originated at the hands of many scribes, who were perhaps more open to suggestions than their predecessors. Some of the letters are close adaptations from the conventional Roman forms, such as C, D, E and L, while others seem to be small letter forms raised to the dignity of capitals, such as B, H, M, R, S, X and Y. F is half capital and half small letter.



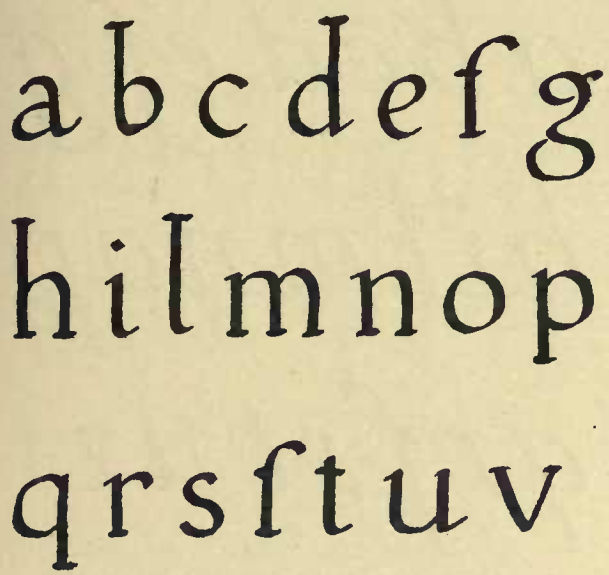
ANGLO-SAXON CAPITALS OF THE EIGHTH AND NINTH CENTURIES.

FIG. 6.

While the Half-Uncial writing of Ireland and England was famous throughout Europe, the work of the French scribes had become so poor that Charlemagne, with a view to the improvement of the writing of his own country, issued a decree in 789 A.D., ordering the adoption of a better style. It was known as the "Caroline" miniscule, and soon spread throughout Europe. It will be seen that all the letters in Fig. 7 are lower-case in form. The transition from capitals to small letters had been accomplished, except that the letter t still appeared in alternate forms. It will be noticed that the letters of this alphabet slope to the right; this is the last word in easy, cursive writing.

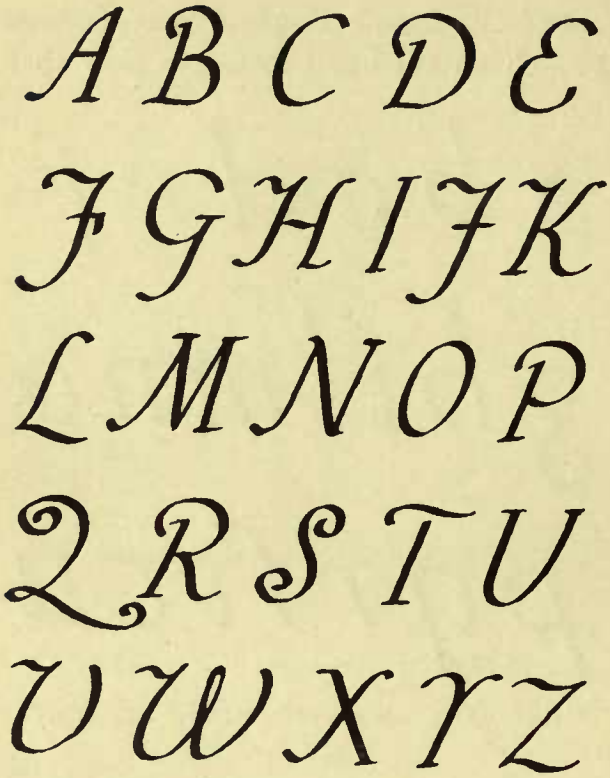


"CAROLINE" WRITING, NINTH CENTURY. FIG. 7.



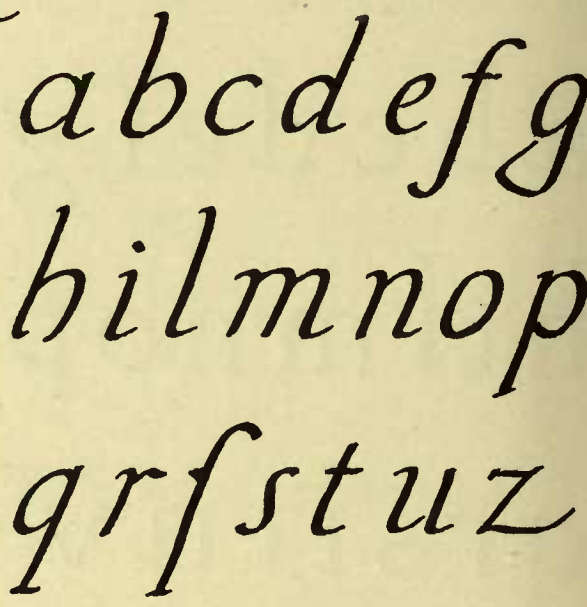
ROMAN SMALL LETTERS, ITALIAN, SIXTEENTH CENTURY. FIG. 8.

The gradual change from capitals to small letters, already briefly described and illustrated, culminated in a distinctive alphabet of small letters in the fifteenth century. The slope of the writing and the method of producing it varied in different countries; but, though differing slightly in details, the root-forms were identical. The Roman small letters shown in Fig. 8 are typical of all the lower-case alphabets of the period. The only letter since discarded is the long s, whose likeness to f led to its expulsion.



ITALIC CAPITALS, ITALIAN, OF THE SIXTEENTH CENTURY. FIG. 9.

The Italian Capitals illustrated in Fig. 9 are based upon Roman capital forms, but slope slightly to the right. They bear strong evidence of their pen origin, and are very free and flourished in character. They may be said to be half-written, half-printed, suggesting Roman capitals and the best examples of capitals in modern writing. Most of these letters can be written without lifting the pen more than once, an important consideration where speed of production must be considered. Italic writing was used to distinguish certain portions of books, such as introductions, prefixes, indices, and notes. It was extensively used in Italy in the writing of MS. books of poems.

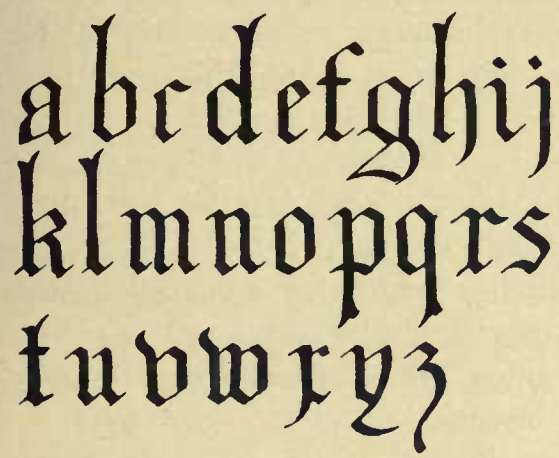


ITALIC SMALL LETTERS, ITALIAN, SIXTEENTH CENTURY. FIG. 10.

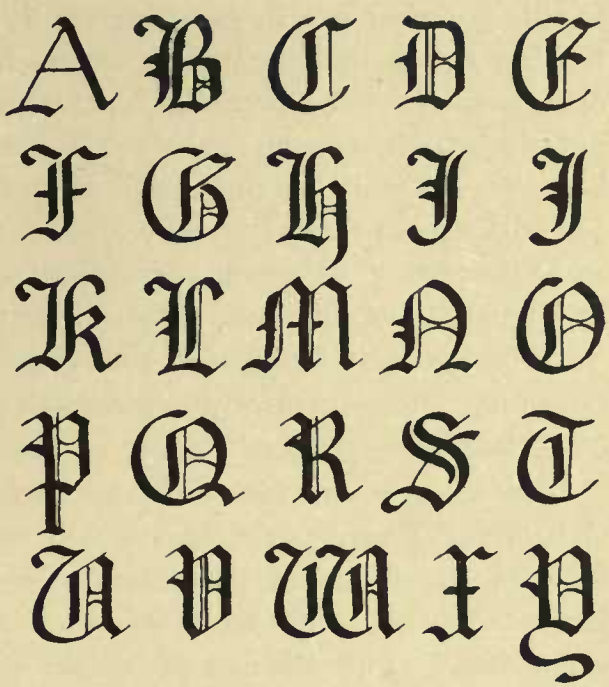
The Italic Small Letters (Fig. 10) naturally bear the same relation to Italic capitals as the small Romans bear to Roman capitals. A reference to the "Caroline" alphabet (Fig. 7) will show that the general form of the two series is similar both in slope and character. The beginning and finishing serifs of

the ascending and descending Italic small letters are, however, absent in the Caroline forms. Some of the Italic forms, such as a, c, e, m, n, o, p, etc., are identical with the same letters used in ordinary writing. Notice that p, q, and the long s have added serifs, while the serifs in the other letters are mere constructional beginnings and endings. Italic small letters are narrower, occupy less space, and are rather more free in character and more graceful in form than the Roman.

The round writing in common use by the scribes throughout Europe during the ninth and tenth centuries gradually became narrower



GOTHIC OR BLACK LETTER (SMALL LETTERS) OF FIFTEENTH CENTURY. FIG. 12.



GOTHIC OR BLACK LETTER (CAPITALS), FIFTEENTH CENTURY. FIG. 11.

and more angular in the succeeding two or three centuries. In England and Ireland it became pointed, while in Germany, by the fifteenth century, it had become very narrow and stiff. The rounded parts were represented by short thick and thin strokes set at an angle, which connected the upright members of the letters. These were placed very close together. This kind of printing or writing was called "Black Letter" by printers, because the thick members and thin interspaces gave it a black or heavy appearance.

Gothic lettering was in common use during the fifteenth century throughout Europe, except in Italy, which still maintained the tradition of the "round" open writing of the preceding centuries. The Germans marked this Gothic writing for their own, and even yet the type they use is mostly "black letter." A glance at the alphabet of Gothic capitals (Fig. 11) reveals the fact that the letters are more ornate and flourished than Roman capitals. It is interesting to try and decipher the essential root forms of the letters in Fig. 11, and in most of them it will be seen that about half of the members are necessary for the characterisation of the form, while the remaining ones are merely ornamental. These unnecessary parts make each letter less distinctive.

A comparison between the alphabet illustrated (Fig. 12) and an alphabet of Roman small letters, will enable anyone to trace the resemblance between the forms of the various letters. It will be noticed that all the letters are composed mostly of thick members with short thick and thin connectors. The absence of curves produces the sense of angularity and stiffness so characteristic of most Gothic writing. Because the letters are composed of so few different typical members, they are liable to be confused the one with the other. Especially is this so in n and u, r and x. In this alphabet, as in all the others, the individual letters are placed some distance from each other, so that their forms may be more easily appreciated, but in ordinary Gothic writing, the letters being close together are more difficult to decipher.

THE series of illustrations shown on pages 22 and 23 exhibit some of the intermediary forms which letters took during seventeen centuries. Beginning with the dignified capitals of early Roman times, they gradually developed into the "cursive" writing in common use in the fifteenth century, when printing from movable types was invented.

From the middle of the fifteenth to the end of the sixteenth century many printing presses had been established, and as every printer was at that time his own type founder, many different kinds of types were in use. By

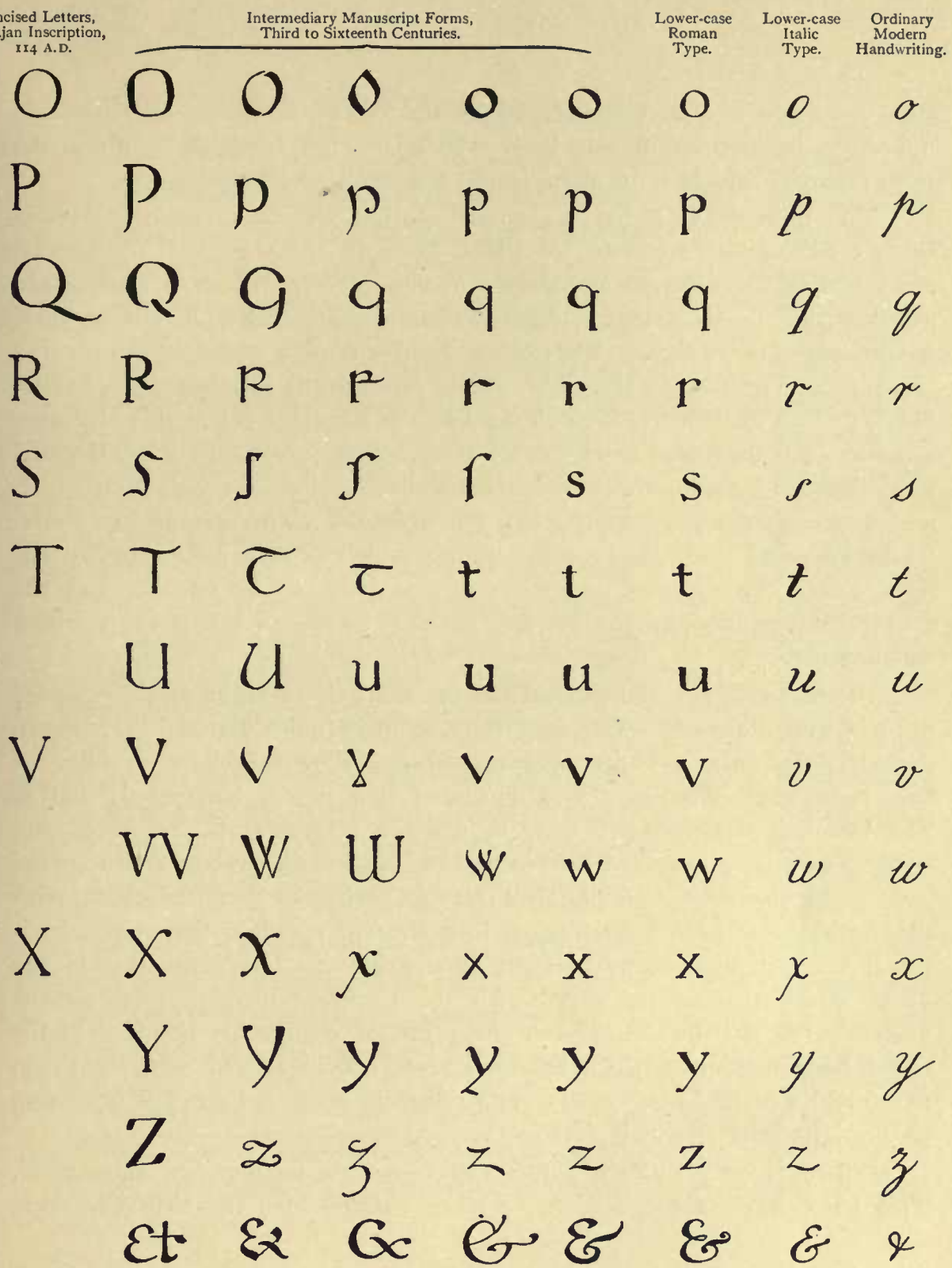
the end of the first fifty years of printing, about two hundred and fifty presses had been set up. The early founder-printers, as was natural, imitated in their types the narrow angular writing of the time, but soon the clear round Italian writing first used in type form by the printers of Italy gained such favour, that it gradually displaced the Gothic type, and Roman letters, both capitals and lower-case, as we now know them, came into general use. When type-founding as a separate business was established, printers found it to their advantage to purchase their type from the founders, instead of casting it for themselves, and this reduced the variety of founts, and further development in the forms of letters was of course limited.

The alterations which had occurred in written letters before the advent of type were mostly occasioned by increased speed in writing. Parts unnecessary for the distinguishing of the individual letters were omitted. For instance, in the letter A, page 22, the first feature to be dispensed with was the cross-bar, which was unnecessary to distinguish this letter from any other, and so to save the penman's time it was omitted. In the third example of A, the first member begins to turn upwards, and eventually develops into a circle, which in its final lower-case form, a, is reduced in size.

It need hardly be stated that the evolution was not regular nor uniform in different countries. The forms illustrated have been taken from many manuscripts produced during seventeen centuries in many countries. They have been arranged to show the kind of changes which took place, rather than to illustrate the actual order of development. All the letters illustrated were actually in use though not necessarily in the order given. Many of them will be recognised as belonging to alphabets already described and illustrated. Some scripts retained an early form for a long period; this was rather suddenly supplanted by a more cursive form, probably adopted from another country. This character might persist for a time, and a return be again made to an earlier form.

The letter B, in its Roman form, had its two bows nearly equal in size and similar in form. The second B shown is taken from a Rustic Roman Script; in it the upper bow has become less important, while the lower one has become correspondingly larger. In the third example the

Incised Letters, Trajan Inscription, 114 A.D.	Intermediary Manuscript Forms, Third to Sixteenth Centuries.					Lower-case Roman Type.	Lower-case Italic Type.	Ordinary Modern Handwriting.
A	Λ	ʌ	ɑ	ɑ	a	a	*a*	*a*
B	B	B	b	b	b	b	*b*	*b*
C	c	c	c	c	c	c	*c*	*c*
D	ɔ	ɔ	ɔ	d	d	d	*d*	*d*
E	ϵ	ϵ	e	e	e	e	*e*	*e*
F	ſ	ſ	f	f	f	f	*f*	*f*
G	ʒ	ʒ	g	g	g	g	*g*	*g*
	H	H	h	h	h	h	*h*	*h*
I	I	ı	ı	i	i	i	*i*	*i*
	K	k	k	k	k	k	*k*	*k*
L	L	l	l	l	l	l	*l*	*l*
M	M	ɱ	ɱ	m	m	m	*m*	*m*
N	N	N	ɴ	n	n	n	*n*	*n*

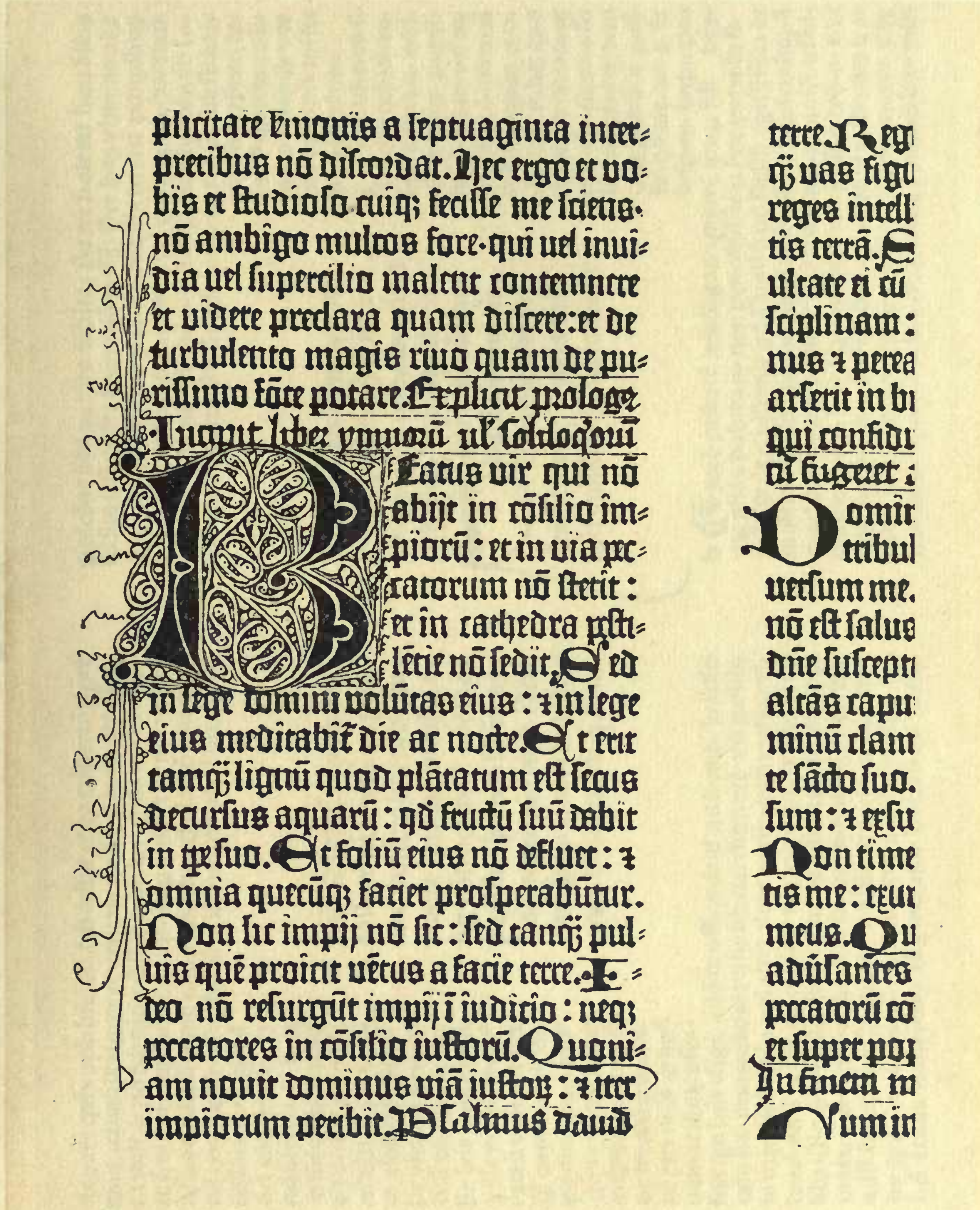


two bows are separated by a space, while in the following specimen the upper one has become a mere loop, which is entirely dispensed with in the next example, which is in all essentials a lower-case letter.

The form of C c has not altered during all these centuries beyond being made smaller, narrower, or wider, to be in harmony with the general characters of the different alphabets. As it is a form which is easily made and contains in its original shape no unnecessary parts, it offered little opportunity for change. The letter D d shows a series of interesting variations. The bow to the right side of the vertical member of capital D, has in its final small letter form changed to the left side. How this alteration came about is illustrated in the series of successive forms. In the "Uncial" form (second example) the bow has been changed into a circle, from which an ascender is produced to the left and upwards. This member in course of time became more nearly erect, during which process it changed to the right side. The gradual reduction in the size of the circular, and the consequent extension of the vertical member, produced the d form which we now use.

In the letter E e the gradual change from the straight to the rounded form is well illustrated. Curved forms are more quickly made with a pen than straight ones, and the penman was not slow to follow the line of least resistance. The second E illustrated is a hybrid between E and e. The intention has evidently been to make a "square" E, but speed and want of care have produced a form midway between a straight and a curved letter. In the third example, two of the horizontal members along with the vertical one have been merged into one curve, while the central horizontal member still retains its form and position. The connection of the upper termination of the curve with the unaltered member produces the final form e. In the case of F f the principal change has occurred in the upper horizontal arm, which has been made curved instead of straight; in the small letter the bar crosses through the main member instead of beginning at the right hand side as it does in F.

There is very little in a small g to suggest its dignified ancestor G. This letter has probably undergone more changes of form than any other

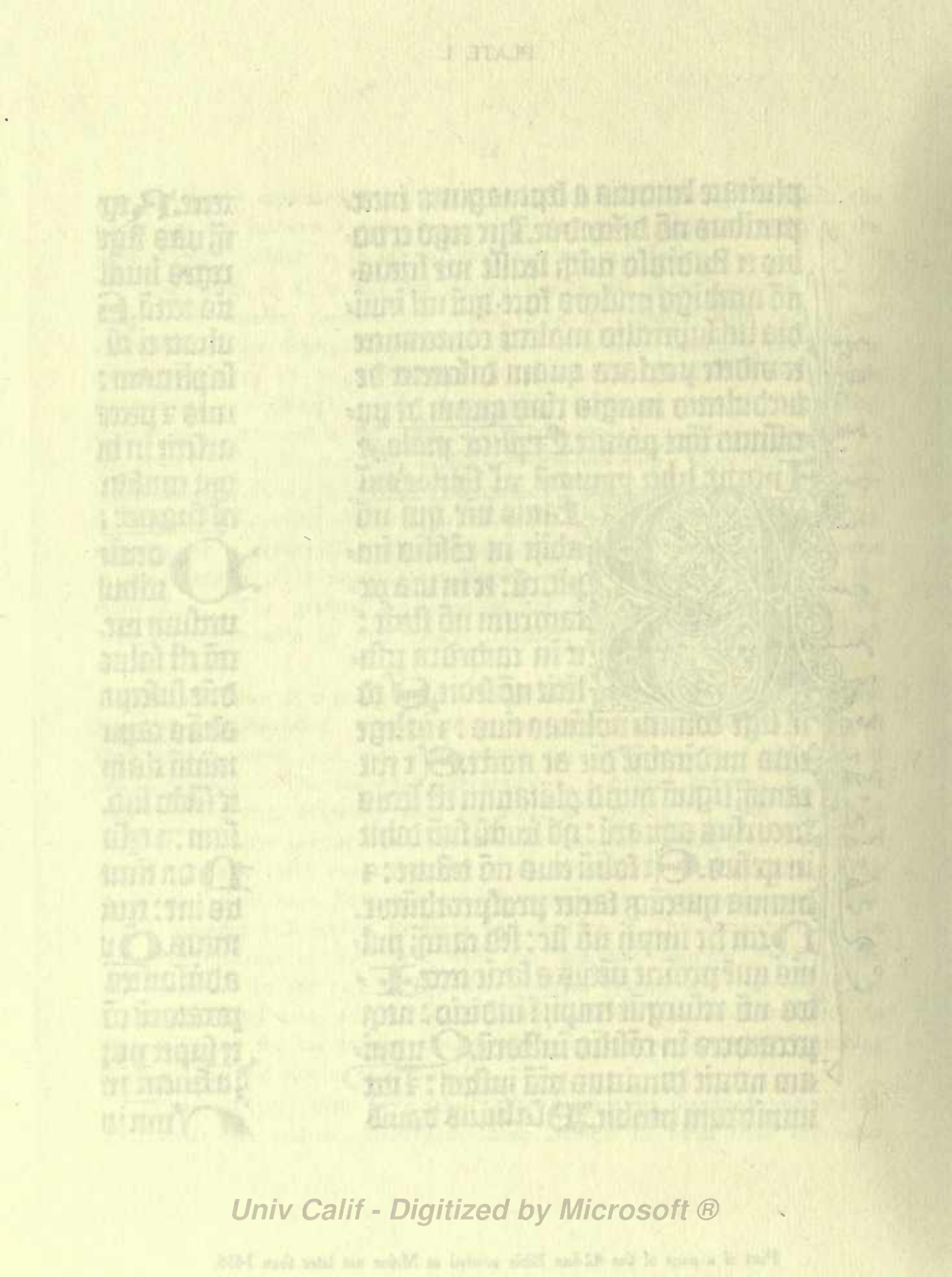


plicitate sermonis a septuaginta inter-
pretibus nō discordat. Hec ergo et vo-
bis et studioso cuiq; fecisse me sciens.
nō ambigo multos fore. qui uel inui-
dia uel supercilio malent contemnere
et uidere preclara quam discere: et de
turbulento magis riuo quam de pu-
rissimo fōte potare. Explicit prologꝰ.
Incipit liber ymnorū uł soliloquiorū
BEatus uir qui nō
abijt in cōsilio im-
piorū: et in uia pec-
catorum nō stetit:
et in cathedra pesti-
lētie nō sedit. Sed
in lege domini volūtas eius: ⁊ in lege
eius meditabit̄ die ac nocte. Et erit
tamq̄ lignū quod plātatum est secus
decursus aquarū: qd fructū suū dabit
in tpe suo. Et foliū eius nō defluet: ⁊
omnia quecūq; faciet prosperabūtur.
Non sic impij nō sic: sed tamq̄ pul-
uis quē proicit uētus a facie terre. Ideo
nō resurgūt impij ī iudicio: neq;
peccatores in cōsilio iustorū. Quoni-
am nouit dominus uiā iustorū: ⁊ iter
impiorum peribit. Psalmus dauid

terre. Reg
q; uas figu
reges intell
tis terrā. S
ultate ei cū
sciplinam:
nus ⁊ perea
arserit in br
qui confidu
ol sugeret
Domin
tribul
uersum me.
nō est salus
dn̄e suscept
altās capu
minū clam
te sācto suo.
sum: ⁊ exsu
Non time
tis me: exur
meus. Qu
aduersantes
peccatorū cō
et super po
In finem in
Cum in

Part of a page of the 42-line Bible printed at Mainz not later than 1456.

(King's Library, British Museum).



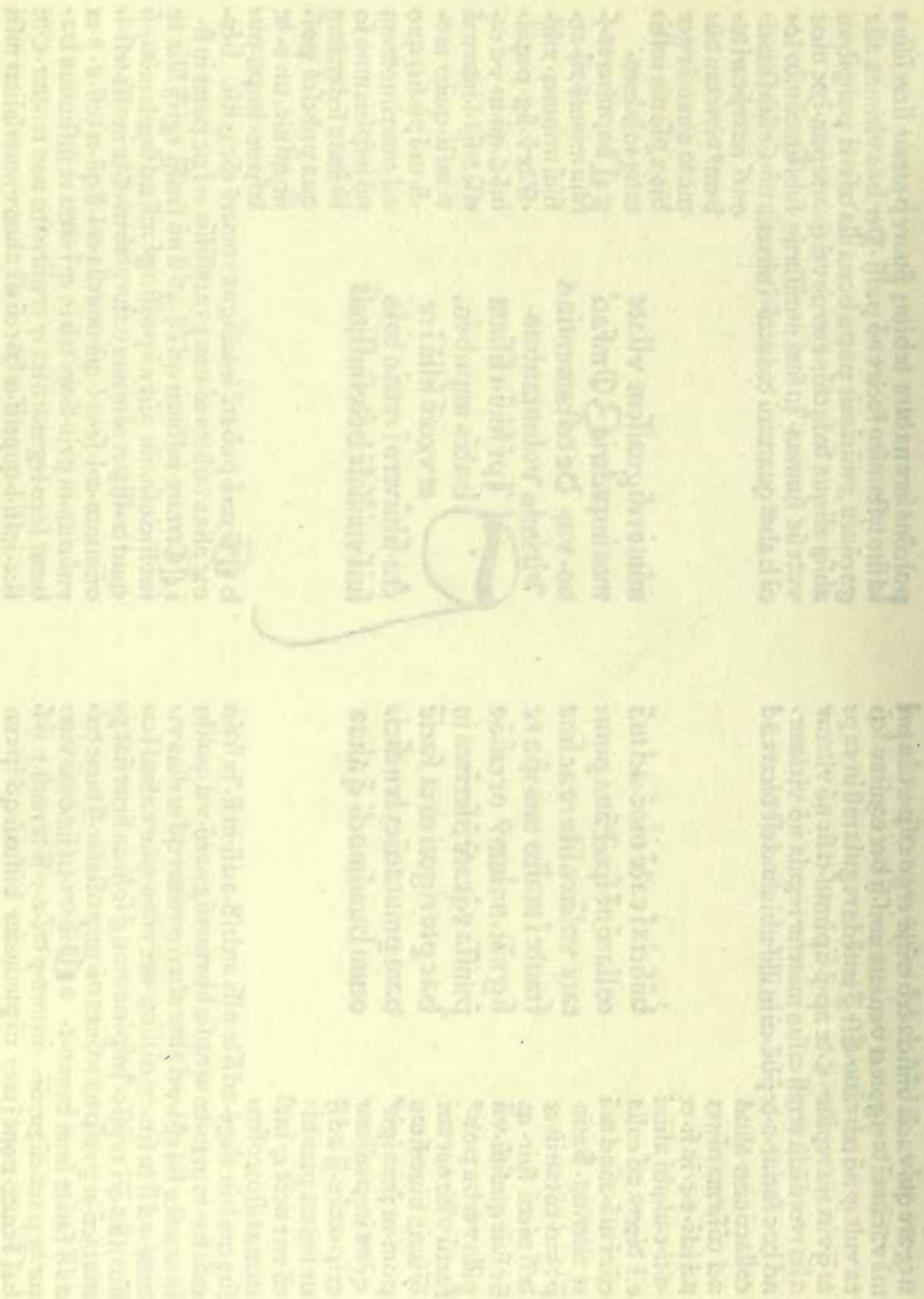
negare quiva cēt bñficia debereñr ergo exſpectāti pri
mā vacaturā de rigore et veritate iuriſ. ħ hec equitas ſcp
ta vult q nō debeātur. Eſt g̃ tenēda regula miſi in ea p-
te q̃ viciata repitur. C. de ap. p̃cipimus. et ſic nō videtur
alīa recedēdū et miſi caſus mutetur regula nō vicietur.
ad hoc faciat. s. de p̃bē. cū in illiſ ubi aliud eſt dicere ād
collacōnem. aliud
ad cōfirmacōnez
ad idē. e. e. in fi. et
e. ti. c. ul. ubi aliud
eſt dicere ad colla
cōnē tuā. aliud tuā
et alterius. Satis
p̃t dici cōtrariū. et
de ħ dictū fuit. q
ſic fuit queſitū. vñ
pillaverba poti9
factū vidz narrari
q̃ iuris diuerſitas
pom. in pma igit
qōne impedietur
exſpectās. ſ ad ħ
ut teneat pmuta-
cō erit necē q mt
uemat illoz ſenſus qui hñt eligē. ad ħ de offi. archiđ. ad ħ. in fi. In ſcđo
caſu fiet in mambo utriuſq; libera reſignacō. vel quilibz
in mambo ſui ep̃i. vel alter alteri omittet qđ melius vi-
detur. ad ħ de ſen. ex. cū illoz. nec video quare aliud i ca-
ſibo iſtis q̃ i exp̃ſſo. Inſpiciamus g̃ ſolū an licite fiat p-
mutacō. et p exſpectacōnes nō impediatur. ħ dicat de.
ad ħ faciat finis huius. c. a Libere. ut ſimonia vite-
tur. de pact. cū pridē. immo. p de. s. e. ħ. de renū. c. ij. ſ.
b Fraude. pone i ter- cū pmutatur bñficiū qđ ſpera-

bñficia i eadē dioc. ad tuā
collacōnē ſpectātia pmu-
tare volētes libere ac ſine
fraude i maibo tuis ipa re
ſignāt. nolum9 occaſiōe
p̃miſſa eq̃tatē p̃ferētes in
hac pte rigori circa facie
dam pmutacōez benefici-
orum huiuſmodi q̃ alias

poſ cōne iure nature debita; p̃uare poterat licet filius
id ſuo teſtamēto facere nō poſſ. Per has vltimas alle
gacōnes pnūciauit papa bona illa deferri paupibus
abſq; aliqua deductōne tercie vel quarte p̃tis. hoc dicit
vnde ſic ſumma. In fidei omiſſarijs ſubſtitucōmbo lo-
cū habet quartarū deductō. i directis nō. Et ſubſtituti-
oneſ interp̃tari de-
bem9 directas dū-
modo ouemāt ver
bis z pſonis inſti-
tutis. io hānes.
g Impuberes. ſ.
filia minorē. xij. an.
filiū minorez. xiiij.
ff. de v. ſig. pupil-
luſ. C. q̃n. tu. vel cu.
eſſe deſijt. l. in decoīā
et inſti. quibo mo.
fi. tu. i pn̄. licz quo
ad matrimonium
nō inſpiciamus ſo
lū ānos ſed etatem
qua pubeſcē poſ-
ſit. qđ dic. ut. s. de
deſpon. impu. pu-
b Uxorē. puberē intelligas z matrē ipoz fili. bēs.
oz alias dubitacō non proceſſiſſet et hoc patet in fi.
i Certare. inſtituit qđ ēj. qđ ſi nō feciſſ egiſſ filia de
moffic ioſo. nūc aūt nō poſſ agē miſi ad ſupplemētuz. ſi
quid deeſſ poſ cōmi iure nature debite. C. de moffi. teſt. l.
oñimodo. et. l. ſe. et. l. q̃n. nouella. et. l. ſi q̃n. et de ħ. s. e. ra
pnūcius. in prin. Scire debēs q i certa re inſtitutus ha-
betur loco legatarij ita q creditoribo non tenetur. C. de
ħre. inſti. l. quotieſ. et hoc cū eſt alius vniuerſaliter inſti

mime reſignaſſent vllate
nus impediri. Q Inſaci
us. viij. De teſtamentis a
Vltimis voluntatibus.
Ip̃ filiū z filiam
habēs impubes.
et vxorē filiā i re
ēta. filiū vero i ceteis boīs
ſuiſ vmuſalē hēdes inſtituit

Upper half of a page from "Bonifacii Papæ Tiber Sextus Decretalium." Printed by Peter Scoffer, Gernsheim, 1473.



pra una ueterrima Veha, da quatro cornigeri Fauni tirata, Inuinculati de ſtrophie de nouelle fronde, Cum la ſua amata & belliſſima moglie Pomona coronata de fructi cum ornato defluo degli biõdiſſimi capigli, pa rea ello ſedẽte, & a gli pedi dellaquale una coctilia Clepſydria iaceua, nel le mane tenente una ſtipata copia de fiori & maturati fructi cum imixta fogliatura. Præcedẽte la Veha agli trahenti Fauni propinqi due formoſe Nymphe añſignane, Vna cũ uno haſtile T rophæo gerula, de Ligoni. Bi denti, farculi, & falcionetti, cũ una ꝑpendẽte tabella abaca cũ tale titulo.

INTEGERRIMAM CORPOR. VALITVDINEM, ET STABILE ROBVR, CASTASQVE MEMSAR. DELI TIAS, ET BEATAM ANIMI SECVRITA TEM CVLTORIB. M. OFFERO.

(*a*) Part of a page from "Hypnerotomachia Poliphili." Printed by Aldus Manutius at Venice in 1499.

(*Reduced.*)

tia de la noſtra deuotiõe & ſeruitu verſo quel la, & de queſta noua & inuſitata ſtampa. La quale ſi (come ſperamo) non gli ſera ingrata mediante el diuino aiuto e la gratia de quel la, ce ſforzaremo ogni giorno a quella dedica re coſe piu celebre & ſublime. a la celſitudi ne de la quale humillimamente ce recom mandamo. In Fano Cæſaris adi vii de Iu lio. M. D. III.

Hieronymo Soncino à gli Lectori.

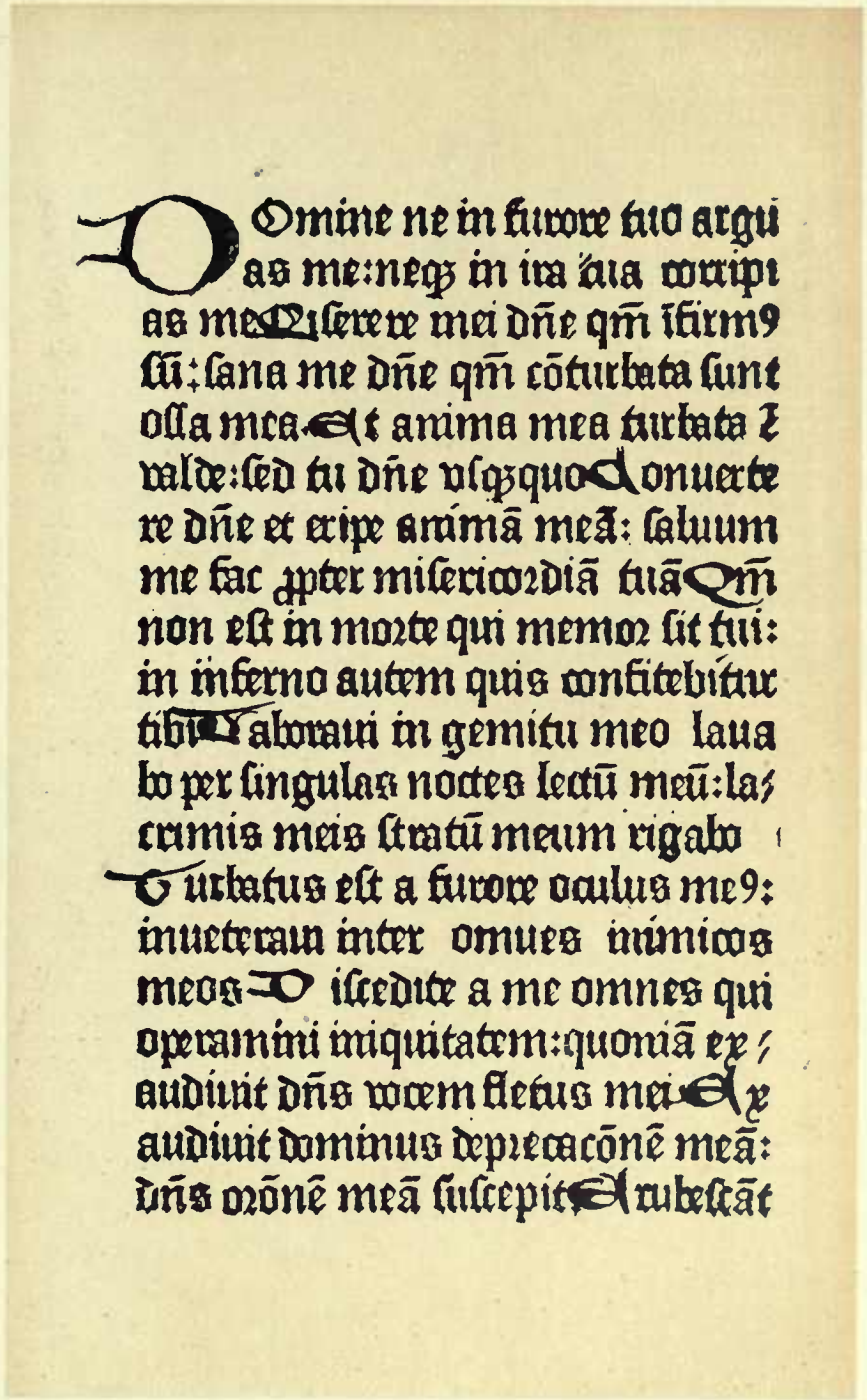
Conueniẽte coſa me pare humaniſſimi Lecto ri: che eſſendo in alcun loco deuiato da lo or dine che hanno tenuto quelli che in ante me hanno in littera curſiua impreſſo queſte ope re del Petracha, & maximamente ne li triũ phi, io aſſegni la ragione che à far cio me hab bia perſuaſo. præcipuamẽte dicendo loro quel la copia hauer tolta da lo originale de mano de eſſo auctore. Per laql coſa dico che come li ſonetti ſono ſtati racolti inordinatamente: coſi medeſimamente ſonno ſtati li triomphi. onde ne li antiqui exemplari trouamo molta differentia: che in alcuno de eſſi uno Capitu lo e meſſo in uno loco, in alcuni altri in uno al tro, Come dimoſtra primamẽte uno antiquiſ ſimo codice, gia del præclariſſimo Poeta Lau reato Meſſer Antonio Conſlãtio da Fano, ne

(*b*) From the dedication to the Opere Volgari of Petrarch. Printed by H. Soncino at Fano in 1503.

(King's Library, British Museum).

Here endeth the book named the dictes or sayengis of the philosophhres enprynted / by me William Caxton at Westmestre the yere of our lord ·M· CCCC· Lxxvij· Whiche book is late translated out of Frensshe into englysshe / by the Noble and puissant lord Lord Anthone Erle of Ryuyers lord of Scales & of the Ile of Wyght / Defendour and directour of the siege apostolique / for our holy Fader the Pope in this Royame of Englond and Gouernour of my lord Prynce of Wales And It is so that at suche tyme as he had accomplysshid this sayd werke / it liked him to sende it to me in certayn quayers to ouersee / Whiche forthwith I salue & sonde therin many grete / notable / and wyse sayengis of the philosophres Acordyng vnto the bookes made in frensshe Whiche I had ofte afore redd / But certaynly I had seen none in englisshe til that tyme / And so afterward I cam vnto my sayd lord & told him how I had redd & seen his book / And that he had do a meritory dede in the labour of the translacion therof in to our englisshe tunge / Wherin he had deserued a singuler laude & thank / Thenne my sayd lord desired me to ouersee it and where as I sholde fynde faute to correcte it / Wherein I answerd vnto his lordship / that I coude not amende it / But if I sholde so presume I might apaire it / For it Was right wel & connyngly made & translated into right good and fayr englisshe / Notwithstondyng he Willed me to ouersee it & shewed me dyuerse thinges Whiche as him semed myght be left out as diuerse lettres missiues sent from Alisander to dary and aristotle & eche to other / Whiche lettres were lityl apertinent vnto to dictes

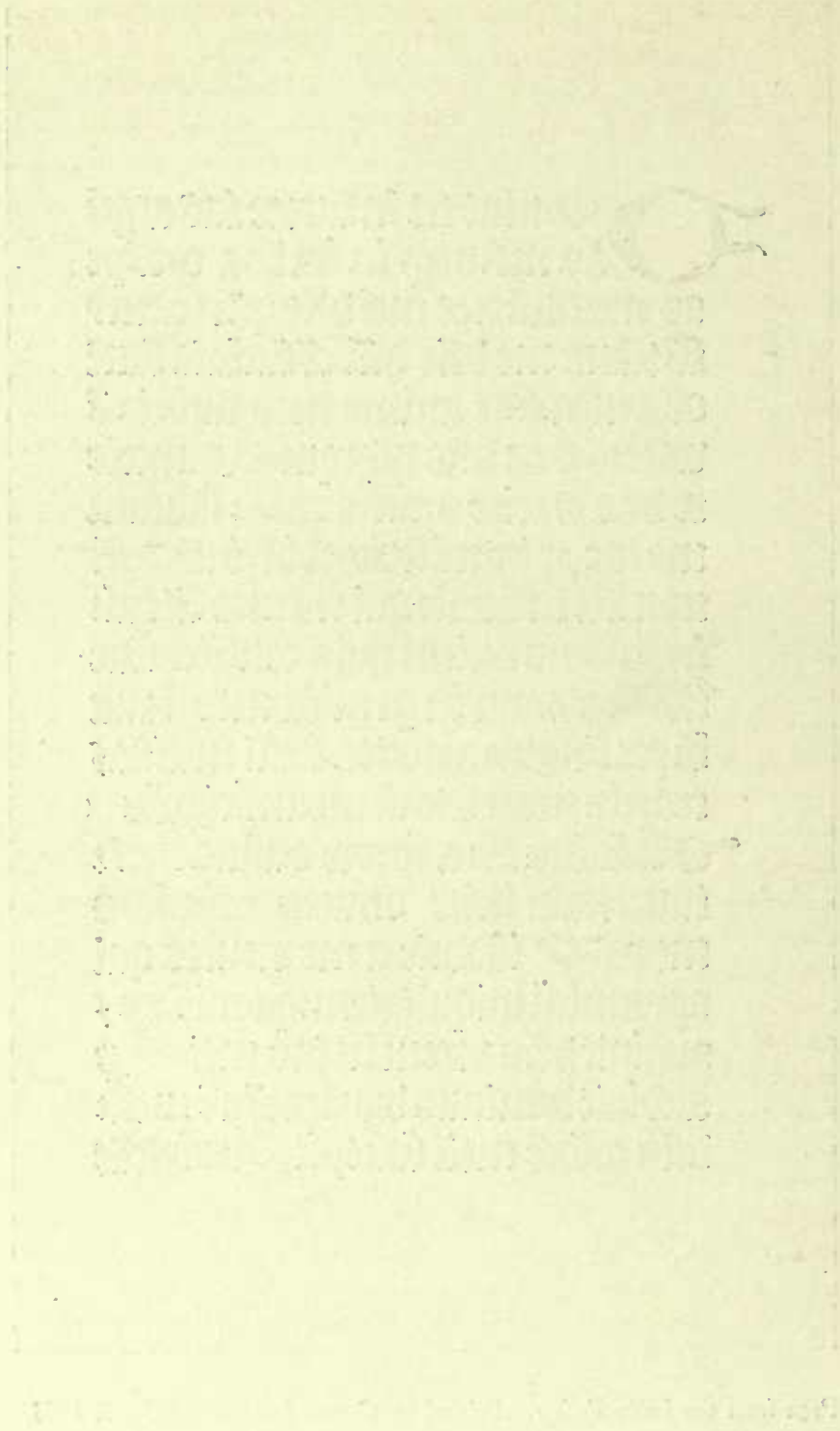
From "The Dictes or Sayengis of the Philosophres." Printed by Caxton at Westminster 1477.
(The King's Library, British Museum).

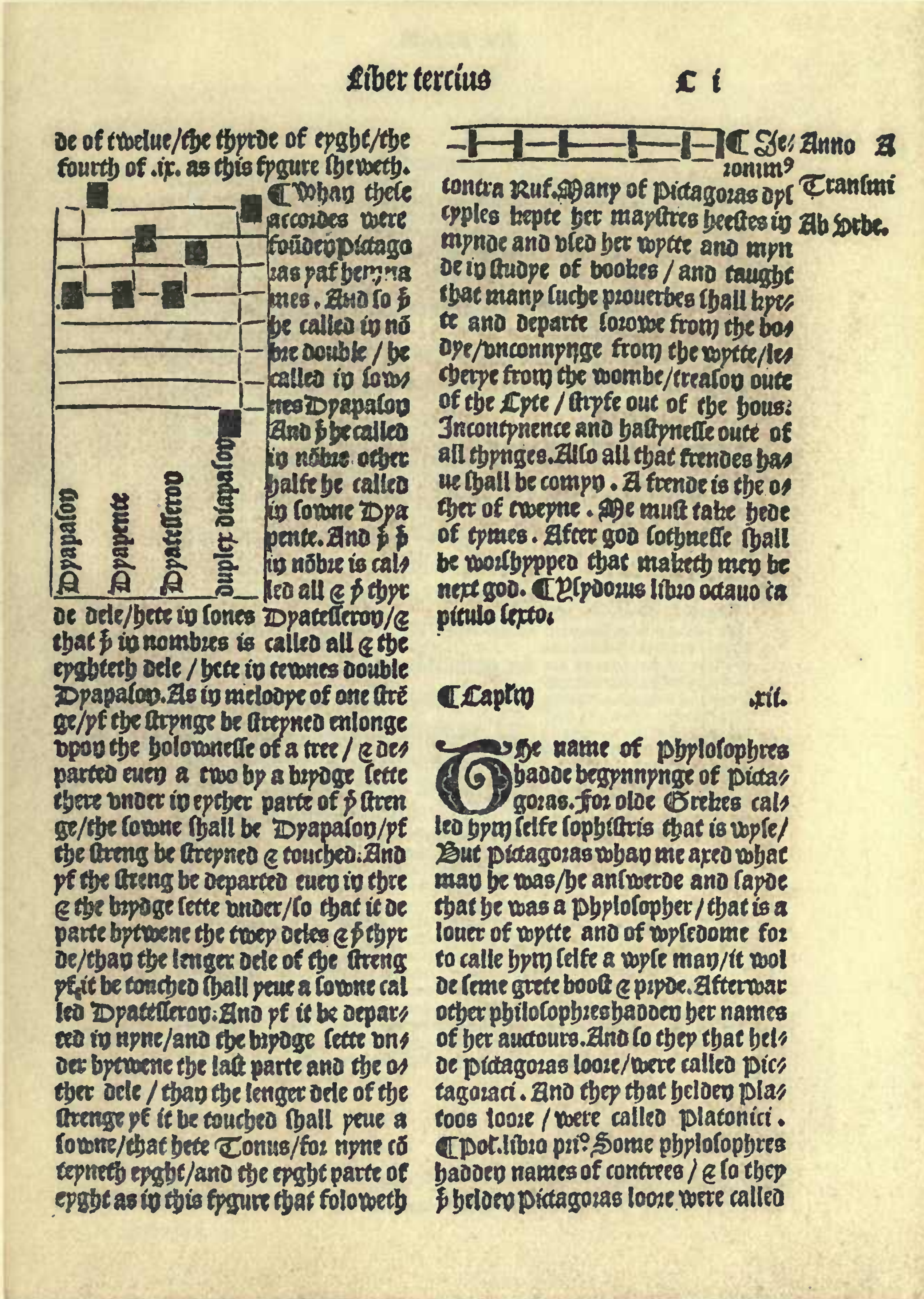


Domine ne in furore tuo argui
as me: neq; in ira tua corripi
as me. Miserere mei dñe qm infirm9
sū: sana me dñe qm cōturbata sunt
ossa mea. Et anima mea turbata ē
valde: sed tu dñe vsq; quo. Conuerte
re dñe et eripe aiam meā: saluum
me fac ꝓpter misericordiā tuā. Qm
non est in morte qui memor sit tui:
in inferno autem quis confitebitur
tibi. Laboraui in gemitu meo laua
bo per singulas noctes lectū meū: la;
crimis meis stratū meum rigabo
Turbatus est a furore oculus me9:
inueteraui inter omnes inimicos
meos. Discedite a me omnes qui
operamini iniquitatem: quoniā ex;
audiuit dñs vocem fletus mei. Et
audiuit dominus deprecacōnē meā:
dñs orōnē meā suscepit. Erubescāt

Page from the Latin Psalter. Printed by Caxton between 1480 and 1483.

(King's Library, British Museum).





de of twelue/the thyrde of eyght/the fourth of .ix. as this fygure sheweth.

Dyapason
Dyapente
Dyatesseron
Dupler diapason

¶ Whan these accordes were foũden pictagoras yaf hem names. And so ẏ he called in nõbre double/ he called in sownes Dyapason And ẏ he called in nõbre other halfe he called in sowne Dyapente. And ẏ ẏ in nõbre is called all & ẏ thyrde dele/hete in sones Dyatesseron/& that ẏ in nombres is called all & the eyghteth dele/ hete in sownes double Dyapason. As in melodye of one strẽge/yf the strynge be streyned enlonge vpon the holownesse of a tree/ & departed euen a two by a brydge sette there vnder in eyther parte of ẏ strenge/the sowne shall be Dyapason/yf the streng be streyned & touched: And yf the streng be departed euen in thre & the brydge sette vnder/so that it departe bytwene the twey deles & ẏ thyrde/than the lenger dele of the streng yf it be touched shall yeue a sowne called Dyatesseron: And yf it be departed in nyne/and the brydge sette vnder bytwene the last parte and the other dele/ than the lenger dele of the strenge yf it be touched shall yeue a sowne/that hete Tonus/for nyne cõteyneth eyght/and the eyght parte of eyght as in this fygure that foloweth

¶ Jeronim⁹ contra Ruf. Many of Pictagoras dysciples kepte her maystres heestes in mynde and vsed her wytte and mynde in studye of bookes/ and taught that many suche prouerbes shall kytte and departe sorowe from the body/vnconnynge from the wytte/lecherye from the wombe/treason oute of the Cyte/ stryfe out of the hous: Incontynence and hastynesse oute of all thynges. Also all that frendes haue shall be commyn. A frende is the other of tweyne. We must take hede of tymes. After god sothnesse shall be worshypped that maketh men be next god. ¶ Ysydorus libro octauo capitulo sexto.

Anno A
Transmi
Ab Vrbe.

¶ Capitulum .xii.

The name of phylosophres hadde begynnynge of pictagoras. For olde Grekes called hym selfe sophistris that is wyse/ But pictagoras whan me axed what man he was/he answerde and sayde that he was a phylosopher/that is a louer of wytte and of wysedome for to calle hym selfe a wyse man/it wolde seme grete boost & pryde. Afterwar other philosophres hadden her names of her auctours. And so they that helde pictagoras loore/were called pictagoraci. And they that helden platoos loore/ were called platonici. ¶ Pol. libro p.º Some phylosophres hadden names of contrees/ & so they ẏ helden pictagoras loore were called

From Higden's Polychronicon. Printed by Wynkyn de Worde in 1495.
(King's Library, British Museum).

Adelphozum.

IBo illis.rc. In hac scena est exemplū intēpestiue obiurgationis ꝛ p hoc ridicule Mi. Iboad ostratā dicā illis mſi et filie nullā esse mozā in nobis me et filio De. Cōstituerat diu illic domi obsidere ſz inter eos vidit fratrem dixitq; sed eccum.i.ecce hic prope ipsum fratrē o Mitio q̄ rote et nō q̄ro p te iamdudū.i.ex multo ante tpe Mi. quidnā.i.cur querebas me. De. sero. affero

Mitio Dea senex

IBo illis dicam nullā esse in nobis mozam. De. eccū ipsum. te iamdudū quero mitio Mi. q̄dnā. De. fero alia flagitia ad te igētia boni illius adolescētis: Mi. ecce autē. De. noua capitalia. Mi. ohe iā desine. De. Ah. nescis q̄ vir sit. Mi. scio: Ah stulte. tu de psaltria me sōnias agere. hoc peccatū in virginem est ciuē init. scio: demea. eha scis et patere. init. q̄dni patiar. demea. dic michi: nō clamas. nō insanis. mit. non malū) quidē: demea. puer est natus: dii bene vortāt. De. virgo nichil habet. mitio. audiui. demea. & ducēda indotata est. mitio Scilicet. De mea. Quid nunc futurum est. Mitio.

et in pectore gesto recōdito alia flagitia ingētia.i.enormia illius boni adolescentis bōi dixit p ironiā quē flagitiosissimū intelligat Mi. aūt.i. ſz ecce.i.adest repentinū malū ꝛ turbatio gaudij. Ecce dū cū repite aliquid triste reb⁹ interuenit et letis aut certe qñ cū aliud agit aliud emergit nouū. De. Fero inquā flagitia noua id ē recentia vel mira seu magna ꝛ capitalia id est ꝓpter que qui admisit dign⁹ sit capite plecti Mi. ohe interiectio ostendens tediū afferri. iam id ē nūc desine.i. desiste ista inculcare et loqui De. ah interiectio volentis. nescis qui.id ē qualis vir sit Mi. scio qui vir sit. Dem. ah hic quasi ridentis est. o stulte.i.inconsiderate tu sōnias ma agere.i.loq̄ de psaltria que fuit rapta a lenone hoc peccatū.i.flagitiū hoc quod fero est.i.extat in virginem id est erga vel contra virginem ciuem atticam. ſz ac ꝓpter ea ḡuet capitale p leges. Mi. scio etiaz illud De. eho interiectio trascentis nunc enim ipſi mitioni trascit nō

solū eschino. Scies.i.cognoscis illud flagitium esse factum et patere. id est pateris seu permittis et fers quasi dicat deberes. mitio. quidni. id est cur non patior presertim cum mederi non possim. Demea. dic michi non clamas. id est vociferas aduersus eschinum turgidis et imꝓperijs non insanijs. id est non verteris in furiam cum hec cernis. Mitio non quidē. id est non etiam voco supple illi eschino malum verbum. id est molestum non aliquid ei mali vt legi in aliquibꝰ codicibus. nam Donatus malū dicit nec etiā cohæret sensus. Demea. Puer natus est ex pamphila scilicet. mitio. dij bene vortant. id ē quod dici solet bene posit euenire seu bene felicitercꝫ eueniat vel dij conuertant rem vt optamꝰ vel vt nolunt nobis expedire. Hoc autem dictum frequens est apud comicos. Dij bene vortant quod ago. plerumq; enim bona in pessimo. mala mutentur in melius. De. virgo pāphila nichil habet. i. est pauper. mi. audiui id est intelleri eā nichil habere. de. et ipsa virgo est ducenda. id est capienda in vxorem indotata. id est sine dote. mi. i. certe est ducenda indotata. de. quid nunc est futurū de hac re. mitio.

Page from Terence's "Comoediae Sex." Printed by Richard Pynson in 1495.
(In the possession of the Author).

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Italian Old Style, 24 point and 14 point. Italian Old Style Italic, 24 point and 14 point.

letter in the alphabet; yet the two main features, the arc of a circle, and the short vertical member or tail seen in the capital G are still present in the lower-case g, though greatly modified in form. Originally the letter C was the symbol used to express two sounds nearly similar; these were the soft and the hard C. Later it was found expedient to add a tail to signify the hard sound; so G was the form evolved. This tail, which was originally an accent, has developed in the lower-case form until it is now the larger part of the letter, while the upper part, originally a bow, is now a circle. The persistence of the tail is well seen in the series of examples shown. The second form is a C accented; in the third example, the tail has been twisted into a loop; the fourth example shows a return towards the original G form, while the next three examples show the continued evolution of the tail. The small extender to the right, terminating in a ball or dot, represents what was formerly a pen dash; this appears in the original G as a serif.

In the second example of H the second upright member has been made shorter than the first, while in the next specimen, the same member is connected to the first by a curve, instead of by a horizontal cross-bar. What seems to be a quite unnecessary loop is also added; this is merely an ornament, as the letter was used as a capital. The other examples are essentially lower-case in form. I has suffered practically no change, except that it has been reduced to half its height, and has had a dot placed over it in the small letter form. This dot is a curious survival. It was originally an accent to signify double i, *i.e.*, ii, while single i was written without any accent. In the fourteenth century the accent began to change into a dot; the earliest occurrence of i instead of ı was in a manuscript written in 1327. The fact that j also appears with a dot is a proof that it was obtained from i by differentiation, and also that the practice of dotting the i is older than the evolution of j. For two sounds now represented by I and J, one symbol I was used for many centuries, but a need arose for the distinguishing of the two sounds, and the I was produced below the writing line and curved at its termination, making J.

In K k no change has occurred, except in the reduction of the height

of the second and third members, and the necessary alteration in the form of the serif at the upper end of the first member. The horizontal member of L became shorter and shorter as time went on, till it now exists in the lower-case l merely as a serif. It will be noticed that the first M has no upper serifs. M in its capital form consists of four members, which in the third example is reduced to three ; the second and third members have been merged into one, while the first and fourth members are curved instead of straight. That the three members gave the letter its characteristic form is evidenced by the fifth example shown, where the scribe has simply drawn three upright members and connected them by a horizontal bar. The changes in N are of a nature similar to those of M. Capital N consists of three members, whereas lower-case n is composed of two members connected by a curve. The fourth example of N is from a "half-uncial" MS. in which it may be remembered capitals and small letters were used indiscriminately. The true lower-case n was also used in this script, not only in the same page, but often in the same word. The fifth example shows the lower-case form raised to the dignity of a capital.

The letter O has shown practically no alteration during all these centuries ; simple and complete in itself at the first, no parts could be added to it nor any dispensed with. It will be noticed that in some of the examples it appears narrower than the normal, or pointed, but its essential form (without beginning or end) remains the same as at the first. P has changed its position rather than its form ; its lower half is now below the line thus—p. The letter Q q shows some interesting changes. These have occurred mostly in connection with the characteristic tail, which, originally of considerable length, and sloping downwards towards the right, gradually assumed an upright position thus—q.

The lower-case r exhibits the result of gradual attenuation. R in its capital form consists of three members. In the second example given, the third member has been shortened ; this member eventually disappears, while the final lower-case r has lost one half of its second member besides. The career of S s has been a chequered one. Originally one of the most graceful forms, it degenerated in the course of time into a straight line

with a small curve at each end, the lower one of which was finally omitted. This, along with the other form s, was in general use when printing was invented, and both forms were used for some centuries afterwards. Its likeness however to f was the cause of its undoing, and it was rather suddenly superseded by its fellow s, which is now almost invariably used, except by a few printers bent upon giving a mediæval character to their work.

The two essential features of T are retained in the lower-case form t. The vertical member has however been shortened a little, while the cross-bar has also been shortened and lowered. The reduction in the total height of the lower-case t was doubtless made to prevent its being confused with f. U and V were originally the same letter, V being used at the beginning of a word and U elsewhere. The form U is of very recent introduction. The early printers used a capital U with a thick second vertical, whereas modern founders make the second vertical thin, omitting the lower serif thus, U. The lower-case u is very similar in form to the original capital form. v, x, and z are identical in their lower-case with their capital forms V, X, and Z. W was not a letter of the Roman alphabet. As its name implied, it is a V or U doubled. In early examples of printing, it is sometimes shown thus, VV, showing its origin as a double V or U. In some scripts the small letter is shown as a double U, though the type founders have mostly rejected this form and make it thus, W. It is difficult to reconcile the appearance of the lower-case letters v, w, x, and z with the other lower-case forms. They seem dwarfed capitals (as they are), and do not exhibit the same modifications as most of the other letters of the alphabet do. The fault, if any, is to be laid upon the early type founders, because w, x, and z at least were modified in harmony with their fellows during the centuries when the capitals were being evolved into the lower-case forms. The form of Y y has changed in one or two particulars, noticeably in the width of the lower member, which, originally upright, thick, and a continuation of the first member, is now thin and curved, actually an extension below the line of the second member. The alterations which have taken place in the "ampersand" can be very closely traced

in the examples shown. The first examples show the two letters E and T very clearly as a ligature; then there is a gradual change until the last form (an ordinary written one) is reached, which is very unlike the original form.

All these alterations of form originally brought about by increased speed in writing, have culminated in the well-known lower-case forms, which have now been fixed by the printing press. The necessity for these forms does not now exist, but we have become so accustomed to their appearance, that a return to the use of capitals only could hardly be accomplished. The advantages of the use of both capitals and lower-case forms are many; besides, capitals only are still appropriate in special cases. In the MS. of the scribes, initials were used at the beginning of paragraphs, instead of the indentations by which the compositor marks them nowadays. The use of initials at the beginning of a page was an excuse for the scribe to introduce one, often of ornamental form. In the later centuries of MS. writing, the initial letter and its decoration often occupied most of a page. Gold and colour were very freely used, while ornamental borders and line finishings were common in the most important books. Thus the ancestor of the compositor was free and untrammelled. The questions of one, two, or multiple printings did not concern him, for, by the mere change of his pen or brush, he could introduce any number of colours he chose. He was able to change the character of his printing or increase or reduce the size of it at will, place his lines of printing close together or wide apart without the use of leads, being independent of type founders, composing sticks, cases, chases, boxes, or formes.

Initial letters and decorations were still added by the scribes to the early printed books. In fact it is open to doubt whether the first books printed from movable types were not intended to be counterfeit imitations of hand-written books.

The modern book, however, exists on its own merits, and while the compositor of to-day works under different conditions from his precursor, the scribe, he has still the means (if he recognises his limitations) of producing works both readable and decorative.

A WIDE variety of tools has been used during the ages for the making of printed inscriptions and books. The form of these inscriptions is dependent principally upon three factors. These are, first—the writing tool; second—the medium (or ink) used for writing with; and third—the surface upon which the characters are written.

The early pictographs were doubtless made upon very rude surfaces, and with very primitive instruments. For drawing upon stone, skins, or bark, burnt wood or charcoal would be used for black, and natural earths or clays would be employed when colour was required. Bone and ivory were also used as writing surfaces, and a hard metal point was used for scratching upon them. Babylonian and Assyrian scribes employed wedge-shaped punches, by means of which they impressed their "cuniform" characters upon soft clay tablets, which were afterwards sun-baked or fired to render them permanent. The ancient Egyptians also incised their Hieroglyphic characters upon stone and plaster, which were often further enriched by means of colour. Writing proper, however, as we understand it, was made in most cases with a brush or a pen, and upon a smooth writing surface, such as skin, parchment, or paper.

As early as 3500 B.C., the scribes of Egypt used a reed pen, either cut with a chisel point or simply sharpened and bruised on the writing end. The former produced writing with thick and thin strokes, the latter writing with lines of equal thickness throughout. This writing was made upon a surface prepared from the pith of the papyrus plant, which was cut into thin strips or bands and laid close together in parallel rows, being crossed by a similar set of gummed bands laid upon them at right angles. The fabric of strips was then pressed, dried in the sun, and polished smooth on the surfaces. Some of the papyrus inscriptions which have been discovered are fifteen inches wide by eighty or ninety feet long. The Greeks and Romans also used papyrus for their writing. The use of parchment or vellum as a writing material became general during the earlier centuries of the Christian Era along with the use of the quill pen.

The tools employed always influence the character of the craftsman's

product, and this is nowhere more evident than in the case of writing. The form of the chisel-shaped writing point causes the variety of thick and thin strokes, and of curves of varying thickness, which is one of the principal beauties of good manuscript writing, and of its type imitation—good printing.

The forms of type letters are directly based upon writing or printing produced by a reed or quill pen, and an understanding of the form and use of such a pen will assist the judgment in deciding what is and what is not legitimate in the forms of type letters.

It seems remarkable that in such a country as Japan, where suitable reeds of many kinds grow profusely, the Japanese should not have seen the artistic possibilities of such a writing tool. Yet Japanese writing (adopted originally from China) is produced by means of a brush — a far more flexible tool, and one which has had a marked effect on the character of the writing produced. Tradition counts for very much, and while the original bias in China was in favour of the brush, the early penmen of the Roman Empire had a tradition going back thousands of years through earlier Greek, Phoenician, and Egyptian civilizations in favour of the reed pen.

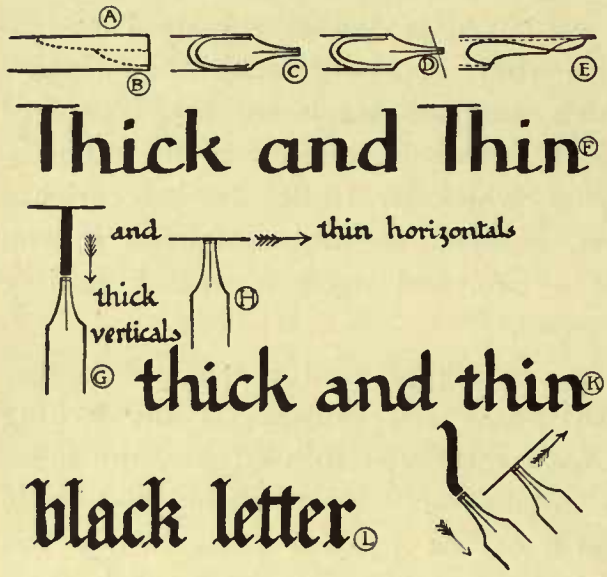


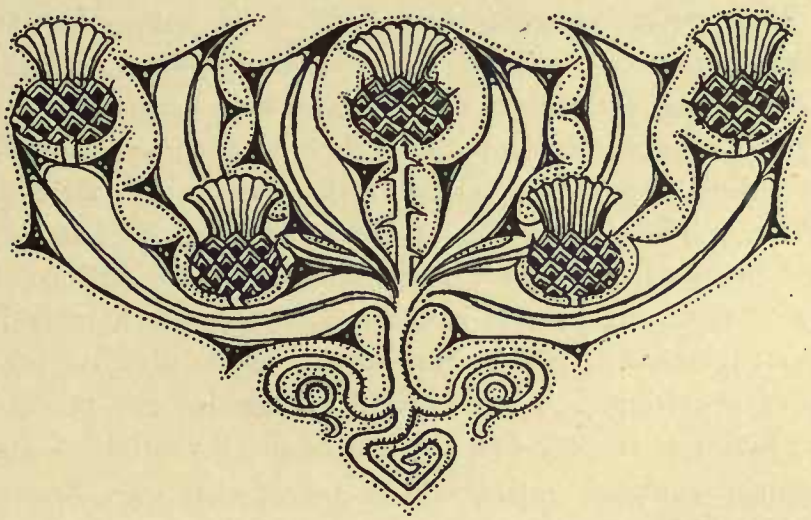
FIG. 13.

Diagrams are given here of the form of the hollow reed pen used by the writers of ancient MS., and the different stages in the making of it. In the diagram (Fig. 13) (*a*) represents a side view of the reed or quill, the dotted line showing the cutting away of the first part, (*b*) represents the second part which is cut away, (*c*) shows the nib split, (*d*) the nib cut at a slight angle by a sharp knife, and (*e*) the introduction of a thin

metal strap to contain the ink. A pen cut in this fashion produces thick vertical strokes and thin horizontal strokes when used with the edge of the nib parallel to the horizontal edge of the page, as shown in the diagram (*f*) (Fig. 13). Scribes term this "straight" pen writing. When the pen is held in a slanted position, with the edge of the nib at an angle to the horizontal edges of the page, it produces moderately thick vertical strokes connected together by thick and thin "heads and tails" (*k*) (Fig. 13).

At the invention of printing, the lettering of the scribes of Northern Europe had become very narrow and angular, and this was copied by the early founder-printers. It is now known as Gothic lettering, or as printers call it, "Black Letter."

From this difference in the holding of the same pen arose the two main divisions of lettering, which are still evident in type faces:—Roman, which shows the result of the use of the straight pen, and Black Letter, the result of the use of the slanted pen.



CHAPTER TWO—THE EARLY PRINTERS.

GERMANY—ITALY—FRANCE—THE NETHERLANDS—SPAIN—ENGLAND.

GERMANY. — Much contradictory evidence has been brought forward in the various attempts made to prove who was the inventor of printing from movable types.

It has been naturally assumed that the printing of illustrations and letterpress from engraved wooden blocks preceded that of printing from movable type. Taking in each case only *dated* examples, it is found that the earliest book printed from movable type was issued in 1457, while the earliest printed block-book is dated 1470, *i.e.*, thirteen years later.

One of the most popular block-books was the "Biblia Pauperum," which went through many editions. It consisted of about forty leaves, and contained scenes from the Old and New Testaments, with explanatory letterpress. The early examples were printed on one side of the paper only, and were produced without any printing press. The impressions were made by laying the sheets face downwards upon the inked surface of the block, and pressing upon them with a smooth burnisher. The later editions were printed upon both sides of the paper, and were produced in a printing press. Though the engraving of a page of letterpress upon a wooden block involved more care and time than the setting of a similar page of movable type, the process had some advantages, notably in a greater freedom of arrangement. Fresh impressions could also be taken without the necessity of re-setting. These advantages enabled the process to remain in use till 1530, almost seventy-five years after the invention of movable type.

Documentary evidence exists, which proves that experiments had been made in printing with movable types of some kind as early as 1444. These trials had been made at Avignon, in France, and also at Haarlem, in

Holland. It is generally conceded, however, that to Johann Gutenberg belongs the honour of the invention. Very little is known of the life of Gutenberg. That it was one which was full of effort and disappointment seems certain. We read that in 1439 he was prosecuted for the repayment of a loan at Strasburg, while a similar action was raised against him in 1455 for the balance of two loans advanced to him in 1450 and 1452 by Johann Fust. These loans were presumably made in connection with experiments in the making of type. Of all the books supposed to have been printed by him, none bears his name.

The earliest known examples of printing from movable type are two letters of Indulgence granted by Pope Nicholas V., and printed in 1454. The sins of the holders of these Indulgences were pardoned upon condition that they gave a certain sum of money to aid the King of Cyprus in a war against the Turks. These two Indulgences, it is supposed, were printed in two separate printing offices in Mainz, one of which likely belonged to Gutenberg. In 1455 the first Latin Bible was printed. This has been known as the "Mazarine Bible," from the fact that the copy in the Mazarine Library at Paris was the first one to attract the attention of bibliophiles; it has also been called the Gutenberg Bible, from its being generally attributed to the press of Gutenberg; and the "42 line Bible," from the fact that each of its pages contains 42 lines of printing. The page of this bible is folio size; the red initial letters were stamped by hand after the completion of the letterpress printing in black. In the later pages the initials were written by hand. A copy of this bible, printed on vellum, was sold recently in New York for £10,000. (See Plate I.) Another Latin Bible, known as the "36 line Bible," having 36 lines to a column, was issued also at Mainz not later than 1461. The larger type used in the two Indulgences is identical with the type used throughout in these two Bibles; it is supposed that each of the printing offices issued one Indulgence and one Bible.

The printers of these early books imitated very closely the arrangement of the MS. books then in common use. The type-letters were imitations of manuscript writing of the time and locality. The scribes

used no title-pages nor pagination, being content to inscribe a colophon at the end of the volume, which usually included the name of the writer and the date and place of production, to which was usually added a prayer of thanksgiving on the completion of the book. This form was imitated by the early printers, who for the best printed books still employed the scribes to write the initials, and add any necessary decoration by hand. It is conjectured by some authorities that the early printed books were meant to be counterfeit imitations of hand-written ones, and only to a trained eye is the difference between some hand-written and early printed books evident. This is easily believed when it is remembered that some of the best examples of early books were printed on vellum, and often much enriched by hand illumination.

Only those who know what exactness of body, sizes and height-to-paper standards, are necessary for the composition of a line of type, can appreciate the marvellous results obtained by the early printers. When it is remembered that the types were cast singly by hand, possibly without an adjustable matrix, that the ink was distributed over the types by a "dabber" and not by a roller, and that the impression was made in a very primitive press, the skill of the early printer craftsman can hardly be over-estimated. Gutenberg is reputed to have printed three hundred sheets per day.

Two other printers of Mainz divide the honours of the infant art with Gutenberg. These were Johann Fust, a jeweller, who seemed to have had some business connection with Gutenberg, as it was he who prosecuted him for the repayment of two loans granted in 1450 and 1452, and Peter Schöffer, an illuminator. From the press of these two, in 1457, was issued the first book bearing the name of its printer and the date of its publication. This was a liturgical Psalter, printed in large clear Gothic type, in which the initial letters were afterwards stamped by hand types in blue and red. A similar Psalter, by the same printers, was issued two years later. A copy of this book was sold in 1884 for £4,950, which until recently was the highest price ever given at a public auction for a printed book. The same printers issued a fine bible in 1462, printed in

much smaller type. This is the first dated bible, and the first occasion on which a book was issued, divided formally into two volumes. In the same year, Mainz was captured and sacked, and this put a stop to the further development of printing there, at least for a time. Owing to the sacking of Mainz, the printers were scattered, and within the next few years, printing presses were established in nearly all European Countries.

Even before this time the art had been carried to several different towns in Germany, for we learn that in 1460, another great Latin Bible had been printed by Johann Mentelin at Strassburg. In 1466, Ulrich Zel issued his first dated book at Cologne, while in 1468 Günther Zainer had issued a book at Augsburg. This printer was the first German to adopt Roman type, which he did in 1472. It is said that he brought it with him from Italy, the land of its birth.

ITALY.—As early as 1465, we find two German printers, Conrad Sweynheym and Arnold Pannartz, established at Subiaco, in Italy. There they printed four books, one of them being "Lactantius," an opera, in which for the first time Greek type was used. The common custom hitherto was to leave blank spaces for Greek quotations, which were afterwards filled in by hand. In the same year, some German printers, established in Rome, issued a "Cicero de Oratore" in Roman type, which had, however, a certain Gothic flavour about it. The first native Italian printer was an officer in the Papal household named Joannes Philippus de Lignamine, who printed at Rome in 1470 a work entitled "Vitae Caesarum." In the same year, Nicolas Jenson, a native of Sommevoire, in France, issued his first book at Venice. The type he used was a beautiful fount of pure Roman, which has served as a model to all subsequent founders of Roman type. It was based on the clear, round Italian MS. writing of the period. Jenson's type was on a body corresponding to English (about 14 point). The capital letters numbered twenty-three (J, U, and W not being in use at that date). The lowercase contained the same number, except that u was substituted for v, and in

addition, there were a long s and the dipthongs æ and œ. To complete the fount, there were fifteen contractions, six double letters, and three points, viz., . : and ⁊, making seventy-three sorts in the whole fount. After Jenson's death, his type and matrices passed into the hands of a firm of which Andrea Torresani was the head. Another famous printer of Italy is Aldus Manutius, who joined Andrea Torresani as a partner. He became Torresani's son-in-law at a later date, and finally inherited his types and matrices. Aldus was the printer of the most famous of Venetian illustrated books, the "Hypnerotomachia Poliphili," a romance, illustrated by no fewer than 168 woodcuts of great refinement, and printed in Roman letters of very fine form. (See Plate III*a*.) Aldus is well known as the originator of Italic type. This was at first called "Aldine" or Venetian, and subsequently termed "Italic," and in Germany, "Cursiv." The punches for the fount were cut by the painter, Francesco de Bologna (better known as Francia). For this fount only lowercase letters were cut, Roman capitals being used along with them. Italics were first used in the printing of "Virgilius," issued by Aldus in 1501. The type found immediate popularity, and was imitated by many of Aldus's contemporaries. Originally intended for the printing of entire books, as in the "Virgilius," it was used at a later period to distinguish certain portions of the text, such as introductions, prefaces, and indices. It is now almost entirely reserved for emphasising certain words in the text.

FRANCE. — France received the new art in 1470 by the hands of three German printers, Ulrich Gering of Constance, and Martin Kranz and Michael Friburger of Colmar. These men were invited to set up a press by two of the professors of the College of the Sorbonne of Paris ; accommodation was assigned to them within the College buildings. For two years, they continued to occupy the workshop provided for them, and issued during that time several books, mostly of a scholastic kind. After this time, they moved to new premises, and began to print in opposition to other craftsmen, who had established presses without the assistance of the College.

THE NETHERLANDS.—In the year 1473, the first dated book was printed in the Netherlands. It is practically certain that fifty books were printed there before 1473, but no date or place can be assigned to any of them. They were rather rude, and certainly could not have been printed by craftsmen who had been trained at Mainz. Two firms issued books in the Netherlands in 1473; these were Nicolaus Ketelaer, and Gerard Leempt at Utrecht, and John of Westphalia and Thierry Martens at Alost. John of Westphalia was the first printer of the Netherlands who used Roman type, and the only printer of that country who used it in the fifteenth century.

Our own first English printer, Caxton, also issued, with the help of Colard Mansion, two books at Bruges. During the fifteenth century, printing presses were at work in twenty-one towns in the Netherlands. Two other printers, though of much later date, must be mentioned in connection with the Netherlands. These are the Plantins, who established a press at Antwerp in 1555, and who maintained a great tradition for printing there through several generations, and the Elzevirs, who produced many fine books in Amsterdam and other Dutch towns from 1595 to 1680. They are famous for a fine 12mo Edition of the Latin Classics. Their Roman type was cut by Christopher van Dijk, and was used as a model by later English type-founders.

SPAIN.—Printing was introduced into Spain in 1474 by a German or Flemish printer named Lambert Palmart, who, along with Alonzo Fernandez of Cardova, set up a press at Valencia. Spanish printing does not occupy a very important place in the annals of the art; less than six hundred Spanish books were produced before the close of the fifteenth century. Most of these books were the work of foreign printers, less than one-third of them being printed by native craftsmen. The more important centres of printing in Spain were Saragossa, Seville, Barcelona, Salamanca, Burgos, and Toledo. The type mostly used was based upon the Spanish manuscript writing of the period, and is dignified and fine in character.

ENGLAND. — England was the last important European country to receive the new art, which she did through the medium of one of her own sons. William Caxton had had a very chequered career. Born about 1420 in the Weald of Kent, he was apprenticed in 1438 to a London mercer named Robert Large. Upon the death of his master soon after, he migrated to the Continent, living at different times in Brabant, Flanders, Holland, and Zealand, becoming afterwards the Governor of the English Merchants at Bruges. When about fifty years of age, he entered the service of the Duchess of Burgundy (the sister of Edward IV.), as her Secretary, and was encouraged by her to continue a translation of Raoul le Fèvre's "Recueil des histoires de Troye," which had been interrupted by other affairs. By 1471, he had finished the translation, and as he had promised copies of it to several friends, he looked about for the means of producing them. The means of accomplishing this, however, were not at hand, and some years elapsed before he was able to associate himself with Colard Mansion, a skilled writer of manuscripts. Together, they printed the book at Bruges in 1475. The translation was begun on 18th March 1468, and finished on 19th September 1471. He quaintly describes the translation and printing of the book: — "Thus ende I this book whyche I have translated after myn Auctor as nyghe as God hath gyven me connyng, to whom be gyven the laude and preysing. And for as moche as in the wrytyng of the same my penne is worn, my hand wery and not stedfast, myn eyen dimmed with overmoche lokyng on the whit paper, and my corage not so prone and redy to laboure as hit hath ben, and that age crepeth on me dayly and febleth all the bodye; and also because I have promysid to dyverce gentilmen and to my frendes to addresse to hem as hastely as I myght this sayd book. Therefore, I have practysed and lerned at my great charge and dispense to ordeyne this said book in prynte after the manner and form as ye may here see, and is not wreton with penne and ynke, as other bokes ben, to thende that every man may have them attones, for all the bookes of this storye named the Recule of the Historyes of Troyes, thus enprynted as ye may here see, were begonne in oon day and also fynysshid in oon

day." But for troublous times in the country of his adoption, Caxton might have continued to translate and print there, but he thought it better to return to England, which he accordingly did in 1476.

The first English printer set up his press in September 1476, in a shop attached to the Sanctuary at Westminster. Here, in the autumn of the following year, Caxton issued the first dated book printed in England, "The dictes or Sayengis of the Philosophres." Mr Blades (Caxton's Biographer) distinguishes several different founts used by Caxton. Type No. 1 was used for "The Recuyell" and also for "The Game and Playe of the Chesse," both of which were printed with the help of Colard Mansion at Bruges in 1475 and 1476. This fount was about greatprimer in size (rather larger than 18 point), and was composed of no fewer than 163 sorts; it was left behind at Bruges. Type No. 2 was cut by Colard Mansion, and brought by Caxton himself when he returned to England in 1476. This fount was on a body equal to two-line longprimer (about 20 point), and consisted of 217 sorts. The capitals were very irregular. Twenty books were printed in this type between 1477 and 1479, including "The Dictes or Sayengis," Chaucer's "Canterbury Tales," and a second edition of "The Game and Playe of the Chesse." The two founts already referred to, as well as types 4, 5, and 6, were based upon a style of manuscript writing known as "Secretary." Type No. 3, however, was of quite a different character. It was used for the printing of a "Latin Psalter," issued sometime between 1480 and 1483, as well as for a few other church books, and for occasional headlines elsewhere. The beauty of this type can be seen by referring to a reproduction of a page of the Psalter from the only known copy in the British Museum. (See Plate V.) The fount consisted of some 194 sorts. Type 4 was similar to type 2, but rather smaller. "The book of the subtyl hystoryes and Fables of Esope which were translated out of the Frensshe into Englysshe by William Caxton, 1483," was printed with this type. Type 5 was like type 3, but of a less size, while type 6 was similar to type 2, and consisted of 141 sorts. Eighteen works were printed with type 6 between 1489 and 1491, including "The Fifteen Oes," and other prayers. This book consisted of fifteen

prayers, each beginning with the invocation O ; it is the only book having ornamental borders known to have been printed by Caxton, and was dedicated to Edward IV.'s Queen. Though Caxton did not begin to print before he was fifty-five years of age, he produced no fewer than one hundred books during the next sixteen years. His time was so much occupied in translating, that it is doubtful, if after the first year or so, he set or printed any of his books with his own hands. Most of the works he issued were printed in English ; they were almost all of a popular character, and it is not likely that books of any other kind would have found a successful sale in England at that time. Upon his death, in 1491, his business was continued by his assistant, Wynkn de Worde, generally supposed to have been a native of Wörth, in Alsace. It is conjectured that he came from Bruges, along with Caxton, in 1476, and no doubt held an important position in Caxton's office from then till 1491, when he succeeded to his master's business. He inherited most of Caxton's matrices, and, besides, cut new letters for himself. He was a better printer than scholar, and produced some six hundred books, including new editions and pamphlets. The black letter founts that he cut became models for England and the Continent. He introduced some improvements upon the practice of Caxton, notably the introduction of title-pages, and the more regular use of ornamental initials. Though he printed some important books, many of which were reprints of his master's, he could hardly be called one of the best printers of his time. From 1491 to 1500 he continued to print in Caxton's house, after which he removed to the Sign of the Sun in Fleet Street. The illustration shown on Plate VI. is a page from Higden's "Polychronicon" or Universal History, printed by Wynkn de Worde ; it is the first example of music-printing in England. De Worde died in 1534.

Richard Pynson is the third of the well-known printers working in London at the end of the fifteenth century. He seems to have been a Norman by birth, and probably learned his craft in Rouen, a great printing centre at this early time. He started business in London in 1491 (the year in which Caxton died), and is supposed to have taken over the

Self-Evident Truths.

Man was made to be happy. Happiness is only attainable through useful effort. The best way to help ourselves is to help others. Useful effort means the proper exercise of all our faculties. We grow only through this exercise. Education should continue through life. The joys of mental endeavour should be especially the solace of the old. The possession of wealth can never make a man exempt from useful labour. If all would work a little, none would be over-worked. If no one wasted all would have enough. If none were over-fed, none would be under-fed.—*Elbert Hubbard.*

(*a*)

SELF-EVIDENT TRUTHS.

Man was made to be happy. Happiness is only attainable through useful effort. The best way to help ourselves is to help others. Useful effort means the proper exercise of all our faculties. We grow only through this exercise. Education should continue through life. The joys of mental endeavour should be especially the solace of the old. The possession of wealth can never make a man exempt from useful labour. If all would work a little, none would be over-worked. If no one wasted, all would have enough. If none were over-fed, none would be under-fed.—*Elbert Hubbard.*

(*b*)

Type by Miller & Richard, Edinburgh and London.—(*a*) 18 Point Old Style and (*b*) 10 Point Old Style.
Paper: "Featherweight Antique Wove"—The Fourstones Paper Mill Co., Ltd., Mill, No. 100, South Tyne Mill, Fourstones, Northumberland

CHARITY SUFFER-
ETH LONG, AND IS
KIND; CHARITY EN-
VIETH NOT; CHAR-
ITY VAUNTETH NOT
ITSELF, IS NOT PUF-
FED UP. DOTH NOT
BEHAVE ITSELF UN-
SEEMLY, SEEKETH
NOT HER OWN, IS
NOT EASILY PRO-
VOKED, THINKETH
NO EVIL; REJOIC-
ETH NOT IN IN-
IQUITY, BUT RE-
JOICETH IN THE
TRUTH. BEARETH

(*a*)

Charity suffereth
long, and is kind;
charity envieth not;
charity vaunteth
not itself, is not
puffed up, doth not
behave itself un-
seemly, seeketh not
her own, is not
easily provoked,
thinketh no evil;
rejoiceth not in in-
iquity, but rejoic-

(*b*)

Type by Miller & Richard, Edinburgh and London—(*a*) 18 Point Old Style Antique, No. 7, and (*b*) 24 Point Old Style Antique, No. 7.
Paper: "Featherweight Antique Laid"—The Fourstones Paper Mill Co., Ltd., Mill No. 100, South Tyne Mill, Fourstones, Northumberland.

THERE WAS A TIME WHEN CASLON TYPE WAS NOT MADE, BUT THIS WAS BEFORE THE YEAR 1716 A.D., IN WHICH WILLIAM CASLON

TURNED HIS ATTENTION TO THE CUTTING OF LETTERS. HE SERVED HIS APPRENTICESHIP TO AN ENGRAVER IN LONDON, AND AT THE EXPIRY OF HIS TERM AT ONCE BEGAN BUSINESS AT VINE STREET IN THE MINORIES. HERE CHASING OF SILVER AND DESIGNING OF TOOLS FOR BOOKBINDERS GENERALLY, OCCUPIED HIS ATTENTION. WHILE THUS ENGAGED SOME OF HIS BOOKBINDING PUNCHES WERE NOTICED FOR THEIR ACCURACY BY MR. WATTS THE EMINENT PRINTER, WHO, FULLY ALIVE TO THE DEGENERATE STATE OF THE TYPOGRAPHICAL ART OF THIS COUNTRY, QUICKLY RECOGNISED THE POSSIBILITY OF RAISING IT AGAIN TO ITS PROPER POSITION. WILLIAM CASLON WAS IN THIS WAY THE FOUNDER OF THE FIRM OF

H. W. CASLON & CO. LTD.,

82 & 83 CHISWELL ST., LONDON, E.C.

Type by H. W. Caslon & Co., Ltd., London. Old Face 48, 36, 24, and 14 point.
Paper—"Silurian Wove"—The Culter Mills Paper Co., Ltd., Mill No. 9, Peterculter, Aberdeenshire.

Type by STEPHENSON, BLAKE & Co. and Sir CHARLES REED & SONS, Sheffield.
Westminster 24 point and 18 point; Italian Old Style Italic 14 point; Winchester 8 point.

Paper—"Silurian Wove"—The Culter Mills Paper Co., Ltd., Mill No. 9, Peterculter, Aberdeenshire.

MILLER & RICHARD

TYPE FOUNDERS

REIKIE'S COURT, NICOLSON ST.

EDINBURGH

WATER LANE, LUDGATE HILL

LONDON, E.C.

Supply everything necessary for the Printer, including Metal and Wood Type, Cases, Chases, Leads, Hard Brass Rule, Galleys, Frames, Racks, Imposing Tables, Furniture Racks, Lead Racks, Forme Racks, Galley Racks, Case Racks, Galley Presses, Printing Presses, Inking Tables, Mitring Machines, Lead Cutters, Roller Frames, Roller Moulds, Platen Machines, Paper Cutting Machines, Label Cutting Machines, Paging and Numbering Machines, Perforating Machines, Stereotyping Apparatus, Wire Stitching Machines, etc., etc.

Are also makers of Cylinder Letterpress Machines in 10 sizes, with latest improvements.

Type by MILLER & RICHARD—Old Style Italic 36, 30, 24, and 18 point.

Paper—"Featherweight Antique Laid"—THE FOURSTONES PAPER MILL CO., LTD., Mill No. 100, South Tyne Mill, Fourstones, Northumberland.

4
4 STONES 4
4

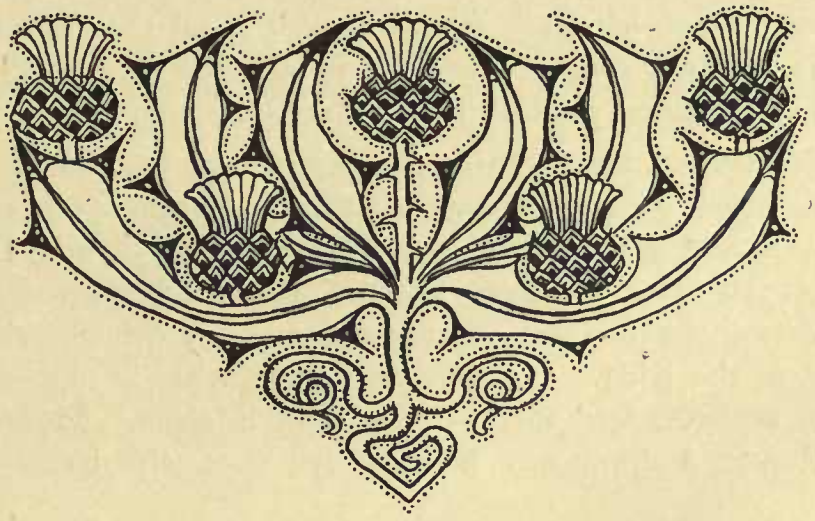
Fourstones Featherweight Pure Esparto Antique Laid and Wove Book Papers have a world-wide reputation for their high quality, purity of colour, and printing qualities. These papers are much more bulky than the ordinary antique papers, our standard bulk for Antique Wove 30×40, 60 lbs., 516 sheets, being equivalent to a thickness of one inch for 320 pages. They are made of pure esparto grass and chemically prepared wood pulp. The machinery employed produces papers up to sixty-five inches wide. These papers may be packed for export in hydraulically pressed bales or wooden cases, and can be shipped from the Tyne shipping ports and Middlesborough. They are supplied by Wholesale Stationers and Paper Merchants only. Telegrams: 'Paper, Fourstones.'

THE FOURSTONES
PAPER MILL CO., LTD.
MILL No. 100
SOUTH TYNE MILL,
FOURSTONES
NORTHUMBERLAND.

Type by H. W. CASLON & Co., Ltd., London. Cheltenham 36, 24, 18, 14, and 10 point.
Paper—"Featherweight Antique Wove," The Fourstones Paper Mill Co., Mill No. 100, Fourstones, Northumberland.

matrices and type of William Machlinia, a foreign printer who had been in business in London for about ten years previously. About 1510 he was appointed Royal Printer to Henry VIII., and fully deserved this honour, as his books were more important and better printed than those of de Worde. Prior to 1518 all English printers had used "Black letter" type for the printing of their books. In that year Pynson used Roman type for the printing of Pace's "Oratio in Pace Nuperima"; he also was the first to introduce diphthongs into the English typographical alphabet. The new form of letter did not meet with immediate favour, and for some time a struggle for the mastery went on between the old form and the new. Some books were printed in which both founts appear, not only on the same page, but often also in the same words. Pynson died about 1530, having printed over three hundred and seventy books. Among the many books which he printed was Terence's "Comoediae Sex," the first Latin classic printed in England, with the exception of a "Cicero" printed at Oxford, of which a fragment only is known to exist.

Walter Chepman and Andrew Myllar were Scotland's earliest printers. They were licensed by James IV. in 1507 to set up a press in Edinburgh. Other early Scottish printers were Thomas Davidson and Thomas Bassendyne; the latter published the first Scottish Bible, which was the first Bible printed in Roman type in Great Britain.



CHAPTER THREE.

THE EARLY BRITISH TYPEFOUNDERS.

GUTENBERG, the inventor of printing, as well as his immediate successors, cut their own punches, made their own matrices, and cast their own type. In the early part of the sixteenth century, however, as the number of printers increased, type-founding as a regular business began to be developed, and periodical markets for the sale of type were held throughout Europe. In England the pioneers of printing, Caxton, Wynkn de Worde, and Pynson, were founders as well as printers, casting type however mostly for their own use. One of the most noted of these founder-printers was John Day, who began business in 1546. He cut founts of Roman, Saxon, and Italic letters, and was the first English founder-printer who cut Roman and Italic letters which would range as one fount. After Day's death, English printers had to depend upon Dutch matrices from which to receive their supplies of type. The year 1585 witnessed a revival of the Oxford University Foundry and Press under Joseph Barnes. During the next century it received two important gifts. Dr John Fell, its Chancellor, in 1677 presented it with a complete foundry, consisting of over seventy sets of punches and matrices for Roman, Italic, Oriental, Saxon, and black letter founts, as well as all the necessary utensils and apparatus requisite for a complete printing office. In the same year Francis Juvinus presented similar gifts to the University.

In the middle of the seventeenth century type-founding and printing began to be carried on as separate businesses in England. Joseph Moxon (1659-1683), Robert and Sylvester Andrews (1683-1733), and Thomas and John James (1710-1782) all figure as early English type-founders. Joseph Moxon combined the business of type-founder and printer with that of hydrographer to the King. In 1669 he printed what is supposed to have been the first type-founders' specimen issued in England. Moxon was succeeded by Robert Andrews and his son Sylvester, who had established a

type-foundry in Oxford. This was purchased in 1733 and removed to London by Thomas James, who had been an apprentice to Robert Andrews, but had left his service before 1710, being joined by his son John at a later date. It does not appear that they cut any punches for themselves; they depended upon Holland for their supply of matrices. By 1758 James' Foundry had absorbed no fewer than nine of the old English foundries.

THE varying fortunes of the Caslon firm form an interesting chapter in the history of type-founding in England. William Caslon I. (1692-1766) may be said to have been the first English type-founder who whole-heartedly devoted himself to the cutting of punches and the casting of type. Originally an engraver of gun barrels, he attracted the attention of Mr Watts, an eminent printer of his day. This printer, struck by the neatness and taste displayed by Caslon in his engraving, and being in need of a new fount of type, enquired whether he thought he could cut letters for him. After one day's consideration, he replied that he thought he could, and straightway began to cut a series of punches for the type which is now known as Caslon Old Face. It is interesting to know that Benjamin Franklin, who later became the well-known American printer, ambassador, and statesman, was at this time a journeyman printer in the service of Mr Watts. The efforts of Caslon gave such satisfaction—the type he had produced was so much better than that in common use—that the Society for the Promotion of Christian Knowledge, being in need of a new Arabic fount, commissioned him to cut it for them. In the same year (1720) he cut a Pica Roman and Italic fount. His next performance was a Pica Coptic fount for Dr Wilkins' edition of the Pentateuch. These successful founts soon made him famous, and by 1730 he had eclipsed most of his competitors, and secured the exclusive custom of the King's printer. About 1733 he cut a black letter fount, and in 1734 issued his first specimen from Chiswell Street, and it contained no fewer than thirty-eight founts, all of which, with the exception of three, were from his own hand. These thirty-five founts represented the untiring industry

of fourteen years. The production of this specimen placed Caslon at the head of his profession, and his type was regarded as the standard. It was illustrated in the second edition of Ephraim Chambers's Cyclopaedia in 1738. In 1739 Caslon purchased half of Robert Mitchell's matrices, the other half being bought by John James. In 1742 Caslon assumed his eldest son, Wm. Caslon II., as a partner, and in the specimen of the same year the firm appears as Wm. Caslon & Son. Caslon II. was as expert as his father at punch-cutting, and the following notice appears in "Ames' Typographical Antiquities," published in 1749:—"The art seems to be carried to its greatest perfection by William Caslon and his son, who, besides the type of all manner of living languages now by him, has offered to perform the same for the dead, that can be recovered, to the satisfaction of any gentleman desirous of the same." The "Universal Magazine" of June 1750 contains an article on letter-founding, accompanied by a picture of the interior of Caslon's Foundry. The print includes representations of four casters at work, one rubber (Joseph Jackson), and one dresser (Thomas Cottrell). Punch-cutting and justifying was carried on in secret by the Caslons themselves, but Jackson and Cottrell found means to observe them at work, and learned for themselves the manual part of the "art and mystery." In the year 1757 a movement for higher wages was made by the men in Caslon's employment. The increase of wages was granted, but Jackson and Cottrell, the ringleaders, were dismissed. In the specimen of 1764 eighty-two different founts were illustrated, more than twice as many as had been shown in the specimen of 1734. Most of the new founts had been cut by Caslon II. Caslon I. was in many ways a cultured man, being extremely fond of music. He was married three times. His first family consisted of one daughter and two sons—William, who succeeded him, and Thomas, who became an eminent bookseller. Caslon I. died at Bethnal Green on January 23, 1766, aged seventy-four. In 1766 Caslon II., who had succeeded to the business on the death of his father, issued a specimen on the title-page of which the original name of Wm. Caslon appears. Caslon II. died in 1778, aged fifty-eight, leaving the business to his son William (Caslon III.). In 1792 Caslon III. disposed of his interest in Chiswell Street to his mother and sister-in-law. Mrs Caslon senior died

in 1795, and as her will was the object of some litigation, the estate was thrown into Chancery, and the foundry put up to auction. It was bought by Mrs Henry Caslon for £520, whereas seven years previously one-third share of the concern had been sold for £3000. In buying the foundry, Mrs Henry Caslon determined to revive the business, and for this purpose secured the services of Mr John Isaac Drury, who cut new Canon, Pica, and Double Pica founts. At the same time, Mr Nathaniel Catherwood, a distant relative, was introduced as a partner. By 1808 the foundry had regained its former position. Both Mrs Henry Caslon and Mr Catherwood died in 1809. In 1802 the firm appeared as Caslon & Catherwood, but in 1809 it was styled Wm. Caslon & Son once more. From 1814 to 1821 the partnership included John James Catherwood, brother of a former partner. From 1830 to 1834 it was styled Caslon & Livermore, then in 1839, Caslon Son and Livermore ; in 1846 Caslon & Son ; and in 1850, H. W. Caslon & Co., Ltd.—the name by which it is now so widely known.

HEN, in 1757, Wm. Caslon I. summarily dismissed his two workmen, Joseph Jackson and Thomas Cottrell, he little thought that his action would lead to the starting of two new businesses, which would develop into rivals of his own and his successors. Thos. Cottrell started as a type-founder in 1757, and had associated with him for some time, Joseph Jackson, his unfortunate coadjutor. Cottrell's business eventually developed into that of Sir Charles Reed & Sons, while Jackson's foundry, established in 1763, at length became that of Stephenson, Blake & Co., both firms being joined under the same management in 1906. The story of the ups and downs of these firms would be too lengthy for narration in such a work as this, but it may be interesting to relate that the foundries, or at least the punches and matrices of about a dozen concerns were absorbed by Thos. Cottrell's successors. These belonged to Joseph Moxon, 1659-1683 ; R. & S. Andrews, 1683-1733 ; Thomas & John James, 1710-1782 ; Fry and Pine, 1764-1776 ; Joseph Fry & Co., 1776-1782 ; Edmund Fry & Co.,

1782-1794; Edmund Fry and Isaac Steele, 1794-1799; Fry, Steele & Co., 1799-1808; and Edmund Fry & Son, 1816-1829, at which date William Thorowgood, who was the then living successor of Thos. Cottrell, took over the business of Edmund Fry & Son, then known as the Polyglot Letter Foundry. In 1838 the style of the firm was Thorowgood & Besley; in 1849, Besley & Co.; in 1861, Reed & Fox; and in 1877, Sir Charles Reed & Sons.

The foundry started by Joseph Jackson in 1763 was put up to auction after his death in 1792, and was acquired by Caslon III., who had left the Chiswell Street firm. In 1807 it belonged to Wm. Caslon, Junior, son of Caslon III. In 1819, Wm. Caslon, Junior, disposed of the foundry to Blake, Garnett & Co., who had become partners for the purpose of acquiring it, and the entire stock was removed to Sheffield. In 1830 the firm was known as Blake & Stephenson, while in 1841, it went under the style of Stephenson, Blake & Co., the name which, in association with Sir Charles Reed & Son, it now bears.

An obituary notice of Thomas Cottrell, written by his friend Nicols, throws a curious light upon the usages of the time, and is as follows:— "Mr Cottrell died, I am sorry to add not in affluent circumstances, though to his profession of a letter founder, were superadded that of a doctor for the toothache, which he cured by burning the ear!" It is interesting to notice that many of the early type-founders forsook other occupations to follow that of punch-cutting. Joseph Moxon was a hydrographer; Caslon I. was an engraver of gun barrels; Alex. Wilson of St Andrews, the first Scotch type-founder, and Joseph and Edmund Fry were all doctors, while John Baskerville of Birmingham was successively a footman, a writing master, a printer, and finally a type-founder. Baskerville seems to have been in many ways a remarkable man. He spent six years of effort and over £600 in improving the typography of his own day. He made everything required for his business,—punches, matrices, type, ink, and even printing presses. His type was of beautiful and elegant form; and the issue in 1757 of the first book printed with it (Virgil) was hailed with delight by the entire literary world. This was not sufficient, however, to compensate him for

the years of labour he had spent on his founts. The printers of his own day preferred the bold Caslon Old Face, which had taken them by storm. He spared no effort to bring his founts into the market, but without success. His entire stock of type-punches and matrices were eventually purchased by Beaumarchais for the "Societé Litteraire Typographique" for £3,700, and transferred to France.

SCOTTISH printers received their supplies of type in the early days of printing from Holland. The first Scottish type-founder was Alex. Wilson, a native of St Andrews, who migrated to London in 1737 as an assistant apothecary. Accompanied by a friend, he was conducted over a type foundry there, and, thinking he could improve upon the current methods of type-founding, he started, along with a Mr Baine, a type foundry in his native town in 1742. The business prospered to such an extent, that the foundry was soon removed to Camlachie, a small village near Glasgow. While in Glasgow, Wilson formed many friendships with the professors of the University there, and also with Robert and Andrew Foulis, the University printers. He is probably best known by the magnificent founts of Greek letters which he cut, and which were used for the splendid edition of the Greek classics issued by the University. In 1834 the Glasgow Type Foundry, as it was called, was transferred to London. In 1845 the firm became bankrupt, and most of the punches and matrices were bought by the Caslons. William Miller, a foreman in the Glasgow Foundry, started business in Edinburgh in 1809 as Wm. Miller & Co. In 1822 the title of the firm was changed to William Miller. In 1832 Mr Richard was admitted as a partner, the firm again becoming Wm. Miller & Co. In 1838 it was styled Miller and Richard. To this firm belongs the credit of being the first British Foundry to successfully introduce machines for casting type. William Miller died in 1843. Mr Richard and his son carried on the business till 1868 when Mr Richard, senior, retired, the conduct of the business devolving upon Mr J. M. Richard and Mr W. M. Richard, whose sons are the present proprietors. Messrs Miller & Richard are now the only type-founders in Scotland.

CHAPTER FOUR—ANALYSIS OF TYPE-FACES.

ROMAN, ITALIC, BLACK-LETTER.

A comparison of the four A's shown on this page will reveal several differences as well as similarities. A1 is a pen-made letter, similar in form to those used by the penmen of the first few centuries of the Christian Era. It is introduced here for comparison with the three other A's, which are type letters. Throughout the analysis of this series the order will remain the same—the left-hand top letters being pen forms of the period mentioned, while the right-hand top letters are 48 point Old Face, the left-hand lower letters are Cheltenham Old Face, and the right-hand lower letters are Old Face Heavy, all from the foundry of Messrs H. W. Caslon & Co., Ltd., London.

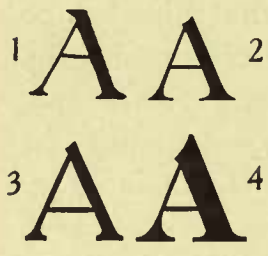


FIG. 14.

The general forms of all four examples are similar. The letters differ from each other, however, in their general proportions of width and height, as well as in the relations which exist between the thick and thin members of each letter, or as Dutch printers call them, the *fats* and *leans*. As these relations are uniform throughout each series, it will not be necessary to refer to them when considering the other letters.

The length and form of serifs have a great influence in determining the appearance of different founts. Notice the weight of the serif in the thin member of A4; this is, of course, in harmony with the bold and heavy appearance of the whole letter. In A3 the serifs are less heavy, and finish in thick terminations, quite unlike the sharp finish of those in A2.

The position of the cross-bar also varies in the three examples, and the forms of the beginnings of the thick members are also different from each other. Attention may be drawn to the relative quantities of white and black in each of the three letters. This is dependent largely upon the relative weights of the thick and thin members. In A2 and A3 a light effect is produced, because the enclosed white spaces are large in relation

to the quantity of black surrounding them. In A4 the white spaces are small in relation to the black; this has produced a heavy effect, and is of course intentional. The horizontal beginning in A1 is produced by the use of the reed-pen or quill, and is different from the same feature in A2, A3, and A4, though these forms had doubtless their origin also in the use of a pen.

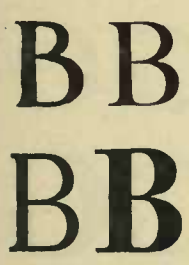


FIG. 15.

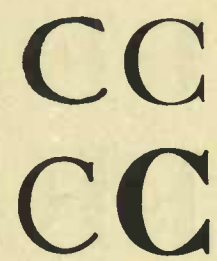


FIG. 16.

The tendency to alter the form of the capitals, owing to the necessity for increased speed in writing, is noticeable in B1, which is an early Roman pen form. The upper bow has become smaller and narrower. The original proportion of the two bows has been restored in B2, 3, and 4. The relation between the width and the height of these letters is varied, B3 being the narrowest. The heavy effect owing to the great disproportion between thicks and thins in fount 4 is very evident in B4, where the enclosed spaces are little wider than the thicks of the several members.

It will be seen that C1 has no serifs, while C2 and C4 have two and C3 one only. In C1 the thick beginning of the curve is formed by the broad nibs of the pen, and the movement from right to left causes the nib in the inside of the curve to cross to the outside, producing in its course a narrowing and subsequently a broadening of the stroke till it attains its greatest breadth midway down the curve, after which it gradually becomes narrower towards the finish. The gradual thickening and thinning of all the curves in the other *round* capitals is caused in the same way. C3 approaches most nearly the form of the pen written C1. In C2 and C4 the serifs at the beginnings and ends are very pronounced.

FIG. 17.

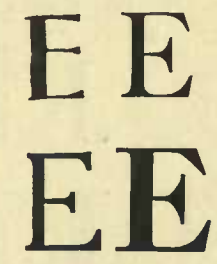


FIG. 18.

The D's call for little comment. Beyond the general differences which pertain to the individual character of the founts of which they are members, they are to all intents and purposes identical. It may be stated as a general

principle that letters of simple elementary form, such as C, D, H, I, O, etc., offer the designer of type little opportunity to improve or degrade their forms.

There are very considerable differences in the shapes of the four E's shown. This is a letter which, on account of the number and position of its parts, is open to a variety of treatments at the hands of the type-designer. Originally a narrow letter, as in E1, it has been expanded in E2, 3, and 4. Other differences are also evident. Its three horizontal members in E1 are uniform in length, while in the type forms E2, 3, and 4, the central bar has been shortened and the upper and lower bars lengthened. In E3 and 4 the lowest bars are longer than the upper ones. The serifs in E3 and 4 are in sharp contrast to each other, the short stumpy serifs of E3 occupying a small space in comparison with those of E4, which seem to take up a large part of the space at the right-hand side of the letter.

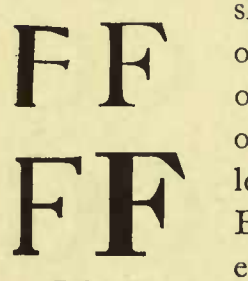


FIG. 19.

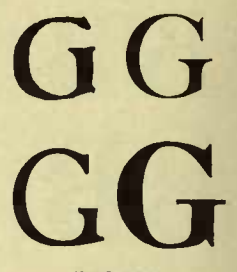


FIG. 20.

FIG. 21.

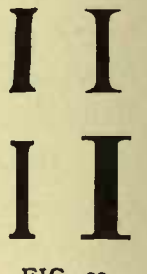


FIG. 22.

The differences between the characters of the vertical, horizontal, and sloping serifs of E4 should be noticed. The features of F are naturally similar to those of E.

In the examples of G's shown, the form of G2 follows that of the pen-written G1. In G3 the shape of the letter has undergone considerable alteration. It is narrower, and in the characteristic feature of the letter (the short vertical stroke) the serif projects to the inside only, while the lower end of the curve is extended outwards, to compensate, as it were, for the want of the half serif which should normally be above it. In G4 it will be noticed that the short vertical member is split at the lower end, a form common in modern Roman founts, and one which was

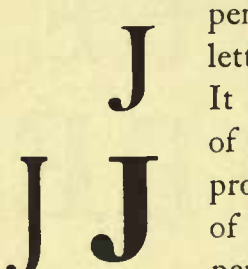


FIG. 23.

FIG. 24.

probably adopted from Gothic letters, in some alphabets of which it is a very pronounced feature.

H and I are two letters which show practically no change in the different examples shown. H4 appears much narrower than the others, but is in reality the same width as H2; the apparent narrowness is caused by the extreme thickness of the verticals, a feature common in this fount. A close scrutiny of the serifs of the four I's will show that each of these is distinctive in length and character.

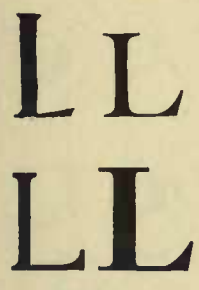


FIG. 25.

FIG. 26.

As is well known, the letter J is a later addition to the alphabet. The forms of J exhibited show some variety. While J2 and 4 finish upon the writing-line, J3 descends below it.

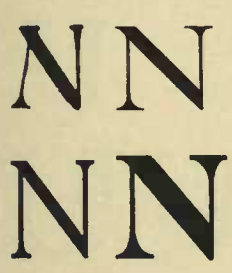


FIG. 27.

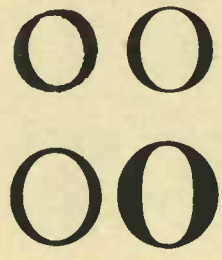


FIG. 28.

The K's illustrated are approximately the same width, though K4, owing to the heaviness of its members, appears much narrower than the other two. K2 and 4 suggest pen forms in the terminations of their third members; the same serif in K3 extends on both sides of this member. The type forms of L2, 3, and 4 are much wider than the original pen form L1, which is a narrow letter. The Roman incised M used in the Trajan inscription has no serifs at the beginnings of its thick members, while the first and fourth members are sloping. These sloping members were retained by the scribes as shown in M1. In M2, 3, and 4 the first and fourth members are vertical. It may be worth while pointing out that the beginning serifs in M2, 3, and 4 are halved, extending outwards only.

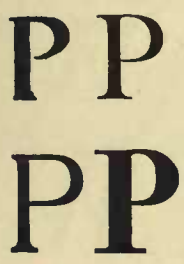


FIG. 29.

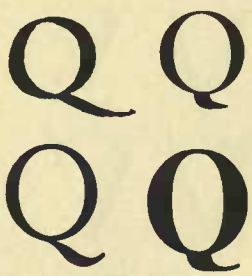


FIG. 30.

In all its features N follows the same character as those of M. N3 is the narrowest of the examples shown. With the exception of the difference between the relations of thicks and thins in the different O's, they are all similar in form. The P's call for little comment. The bow of P3 is squarer in character than those of the others, being composed of horizontals and a curve, while the bows in P1, 2, and 4 are composed of curves only. The hand of the type-founder is apparent in Q2, 3, and 4. In the pen-written form Q1 we see in the pen flourish so characteristic of it, evidence of the delight of the scribe in his craft. In Q3, which harks back to an early form, a compromise has been made, and the fullest advantage has been taken of the beard for the inclusion of the longest tail possible on the type body.

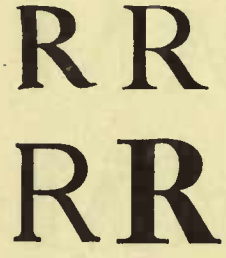


FIG. 31.

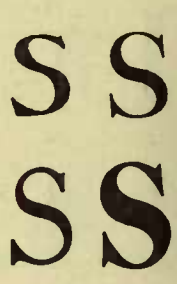


FIG. 32.

The form of the pen-written R1 has been well adhered to in the type forms R2, 3, and 4. In each of these the third member is straight, a form which gives an appearance of strength as compared with the curved third member used in modern Roman founts.

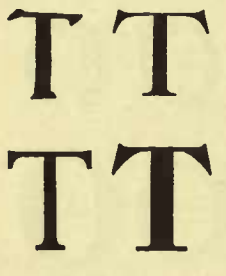


FIG. 33.

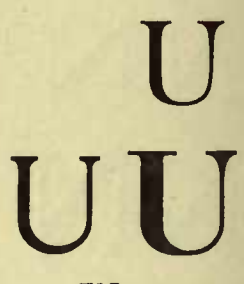


FIG. 34.

S3 differs from the others in that its lower is distinctly larger than its upper half. In the other examples the two halves are apparently the same size.

The forms of serifs and the relative thickness of the members mark the only differences between the four T's illustrated.

Neither the U's nor V's call for any notice.

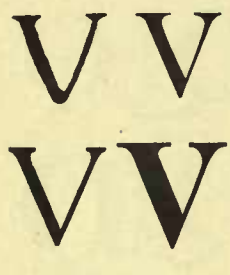


FIG. 35.

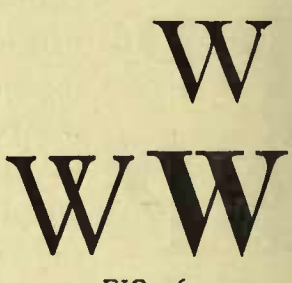


FIG. 36.

The double V or double U, as it is now called, is one of the latest

additions; hence its inclusion near the end of the alphabet. Its origin is self-evident; it used to be sometimes printed thus VV, and W3 shows the two V's quite distinctly.

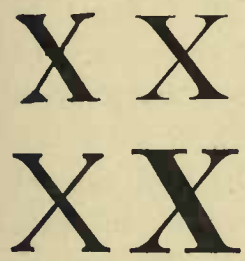


FIG. 37.

X, Y, and Z exhibit the characteristics of the three founts from which they are taken. Otherwise they are essentially the same in their root forms. The "and" or "ampersand," as it used to be called, was originally a contraction for the phrase "et per se" (and by itself). This was later corrupted into "and per se and," then finally into ampersand or amperzand; it is now commonly called "and," the former part of the corrupted form having been dropped. It is difficult to see the connection between the forms shown in &2, 3, and 4, and the contraction et; this, however, is quite evident in the letters E and T thus *&* in the Italic form.

FIG. 38.

Some particulars in reference to the three faces just discussed may be of interest. Caslon Old Face (No. 2) was designed and engraved by William Caslon I. The earliest founts of the series, both Roman and Italic, were issued in 1720, and all the others of this series were completed by 1730. Cheltenham Old Style (No. 3) was designed by Mr Ingalls Kimball for the Cheltenham Press, New York, and was first engraved and issued by the American Type Foundry Co. of New York in 1900. The peculiarity of this series is the long ascenders and short descenders. Old Face Heavy (No. 4) is an imperfect reproduction in the lower-case forms, on a heavier scale, of Caslon Old Face; it was cut and issued by the Inland Type Foundry, St Louis, U.S.A., in 1908. Old Face, Old Face Heavy, and Cheltenham are issued by H. W. Caslon & Co., Ltd., London. All the other alphabets analysed and illustrated in this chapter are from the foundries of the following British Firms:—H. W. Caslon & Co., Ltd., London; Miller & Richard, Edinburgh; and Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

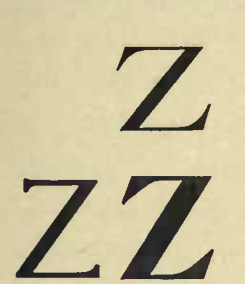


FIG. 39.

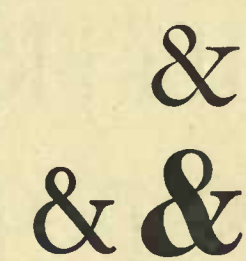


FIG. 40.

THE features which taken together make up the character of lower-case letters, are different from those which give individuality to the capitals of the same founts.

In the case of the capitals the proportions of width to height, and of thicks to thins determine their character. In the lower-case forms, the lengths of ascenders and descenders, along with the forms of beginnings and finishings, are important elements.

Attention has already been directed at some length to the evolution of the lower-case or small letters from capitals during the course of many centuries.

In the progress of this evolution, and owing to accelerated speed in writing, there was a tendency to join letters, one to the other; this reduced to a minimum the lifting of the pen, and was a consequent saving of the penman's time. Some letters such as a, c, e, and t still bear traces of these joinings or connections; in fact most lower-case letters give evidence that at one time they were "cursive" in form, *i.e.*, rapidly written. The loops seen in b, f, g, h, j, k, l, q, and y in ordinary writing owe their form to the same necessity.

a b c d e f g
h i j k l m n
o p q r s t
u v w x y z

OLD FACE Lower-case 48 Point.
Messrs H. W. Caslon & Co., Ltd., London.

FIG. 41.

In analysing the forms of the Old Face lower-case letters illustrated (Fig. 41), it may be advantageous to consider in the first place the beginnings of the letters b, d, h, k, l, whose ascenders are full height and commence from the left. Each of these beginnings consists of a short upward sloping stroke, a natural serif, which suggests the remnant of a connecting link with the previous letter; t has a similar commencement, which is almost hidden by the cross-bar immediately below it. The half-height letters i, m, n, and r have like beginnings, and also the descending letters j and p. c and f have beginnings similar to each

other. These commence at the right-hand side, and are quite different from those already described. Such forms now appear with rounded beginnings, whereas in the pen forms they were square. The graduated curves were produced by the alteration of the inside nib of the pen to the outside position.

The commencement of a is similar to those of c and f, but begins at the left side. The commencements of g, o, and q are not apparent, as they occur on the circle common to them all; the beginnings of g and o are covered by the joints, and those of q and p also by the straight members. e and s occupy classes by themselves. e begins by a horizontal line on the inside of the curve. In the pen-written form of s the beginning was similar to that still seen in f and c; the form of the s in this fount, however, is exactly the same as a capital S, having similar serifs both at the beginning and at the termination of its form. v, w, x, and z are exactly the same as in the capital forms. y has a commencement like capital Y. u is distinct from all the other letters both in its beginning and ending; in fact it looks very much like an n turned upside down, except that the beginnings of the two thick members are half instead of whole serifs. It would be interesting to enquire why this lower-case u is out of harmony with the other lower-case letters of this fount. Many of the early printers and type-founders used this form, especially those of Northern Europe, whereas most of the Italian type-founders produced a u in harmony with the rest of the letters, *i.e.*, having sloping upper serifs and a horizontal lower one. As this latter form of u originated in Italy, where the first Roman fount was cut, there is some excuse for thinking that the inverted n form is not the appropriate one, and a too strong attachment to tradition may account for it being still in use.

The terminations of a, c, e, and t have already been referred to. In these

abcdefghij
klmnopqr
stuvwxyz

CHELTENHAM OLD STYLE Lower-case Letters, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 42.

letters we see indications that before the invention of printing these letters were joined to those following. The letters f, h, i, k, l, m, n, p, q, and r have horizontal serifs at the endings of their principal members. The second members of d and u finish in upward sloping serifs, which seem to suggest attenuated connecting links to the next letters. j and y finish as a, c, and f begin, that is, in a ball or thickened knob. The curious ending of g has already been referred to in connection with the evolution of lower-case letters. The peculiar projecting member finishing in a knob to be seen on the right side of g is an attenuated pen-dash. The finishing serifs of d and u are similar.

In the analysis of the forms of Old Face Caslon (Fig. 42) attention was drawn to the slanted beginnings of the principal members of the letters of that face. The same beginnings in the lower-case letters of Cheltenham are horizontal. In b, d, h, k, and l (ascending letters), i, m, n, r, and u (half size letters), and j and p (descending letters), the beginnings are from the left and are horizontal. Not only so, but the finishings as well as the beginnings are nearly all horizontal also. Notice that the beginnings are half serifs, while all the endings are whole serifs except those of d, q, and u. The reason for the first and last is easily understood, but not for the finishing serif in q, which should normally be the same as that of p.

The principal characteristic of this whole fount, both capitals and lower-case, is the slight difference evident between the thicks and thins. Besides this general feature one notices individual peculiarities in some of the lower-case letters. f, for instance, is extremely narrow, and is full height where it is usually made only three-quarters.

The shortness of all the descenders in relation to the length of all the ascenders is characteristic of the whole of the lower-case letters of the fount. This statement is made neither in condemnation nor in praise ; the peculiarity is simply pointed out as being the means of producing a certain character which is evident in the fount. The g is unusual, though it has a good historic basis for its form. Notice the way that the second member of r rises above the writing line. s begins and finishes in two balls or knobs, while t has no beginning serif.

PLATE XVII.

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Code, A B C (Fifth Edition).

Telegrams: "Pica." Leeds.

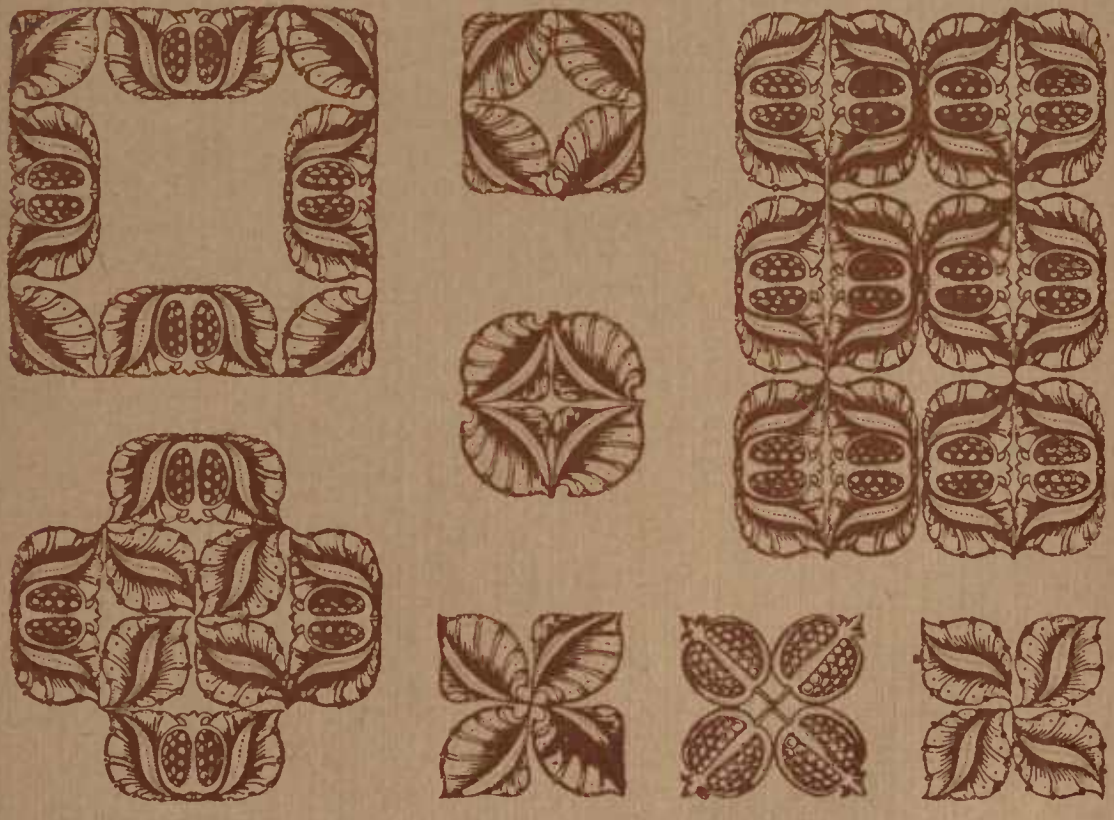
Type by H. W. CASLON & Co., Ltd., London.
Cheltenham Old Style Italic, 48 and 24 point. Cheltenham Old Style, 36, 30, 24, 14, and 10 point.

Paper—S. Jones & Co., 7 Bridewell Place, London, E.C.
"Bramble Rideau Cover," stocked in 18×23, 40 lbs.; 20½×25½, 50 lbs.; 20½×30½, 60 lbs.; 23×36, 80 lbs; at 3¼d. per lb., 5%.
480 sheets to the ream.

PLATE XVIII.

POMEGRANATE ORNAMENTS.

Seven units employed in the formation of Pomegranate Ornaments.



Ten Ornaments composed of Pomegranate units repeated.

Ornaments by H. W. CASLON & Co., Ltd., 82 and 83 Chiswell Street, London, E.C.

Printed upon S. JONES & Co.'s "Primrose Camber Cover," stocked in 18×23, 48 lbs.; 20×25, 58 lbs.; 20½×30½, 72 lbs.; 23×36, 96 lbs.; at 3d. per lb., 5%.

PLATE XX.

PATTERNS COMPOSED OF REPEATED UNITS.

Five Thistle Units employed in the formation of the patterns below and also on Plate XXI.

One Unit repeated.

Two Units repeated.

One Unit repeated.

Two Units repeated.

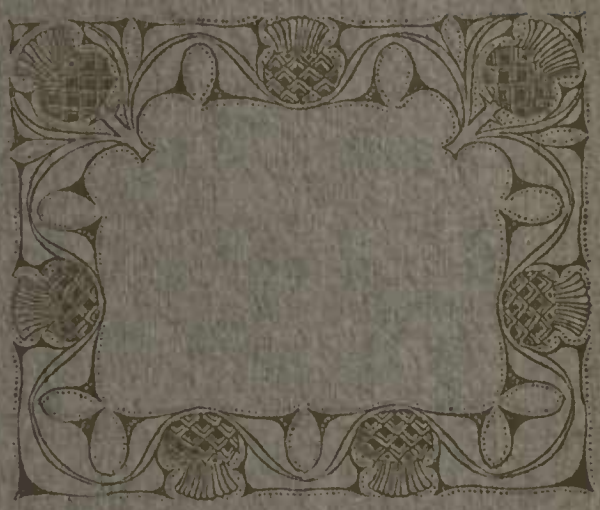
One Unit repeated.

Paper—S. Jones & Co., 7 Bridewell Place, London, E.C.
"Birch Rideau Cover," stocked in 1 × 23, 40 lbs.; 20½ × 25½, 50 lbs.; 20½ × 31½, 60 lbs.; 23 × 31, 70 lbs.; at 3½d. per lb., 5 %.
480 sheets to the ream.

PLATE XXI.

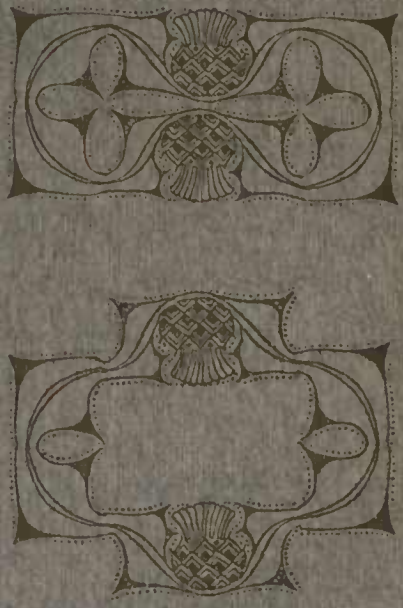
PATTERNS COMPOSED OF REPEATED UNITS.

Two units repeated.



Three units repeated.

One unit repeated.



Two units repeated.

Paper—S. Jones & Co., 7 Bartholomew Place, London, E.C.
"Birch Ridge Cover," stocked in 15 × 23, 40 lbs.; 20½ × 25½, 50 lbs.; 20½ × 30½, 60 lbs.; 23 × 36, 80 lbs.; at 3½d. per lb., 5⅞.
480 sheets to the ream.

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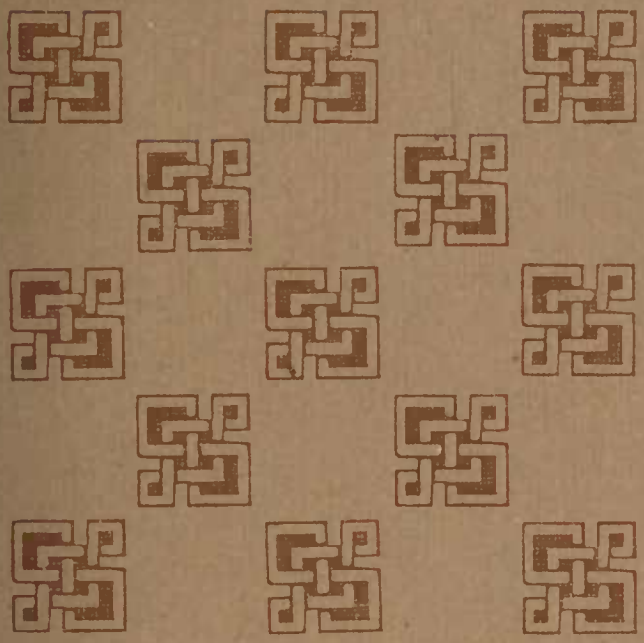
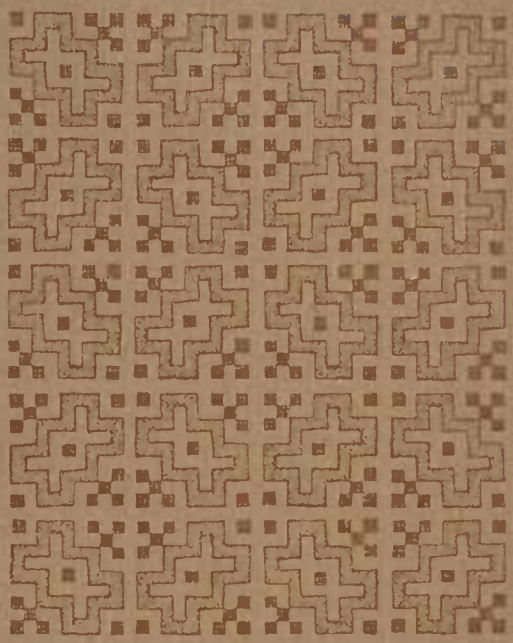
Type by MILLER & RICHARD, Edinburgh and London—Old Style Antique, No. 7 (Roman and Italic), and Tudor Black;
Brass Rules, 5 Point, No. 13, and 8 Point, No. 66.

PLATE XXIII.

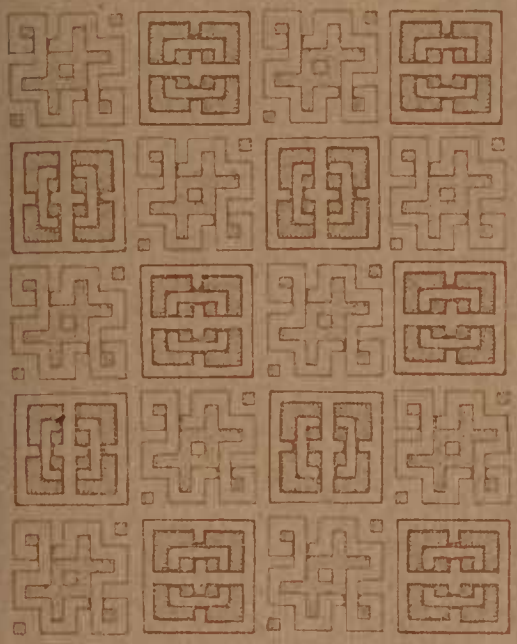
DIAPERS OR ALL-OVER PATTERNS.



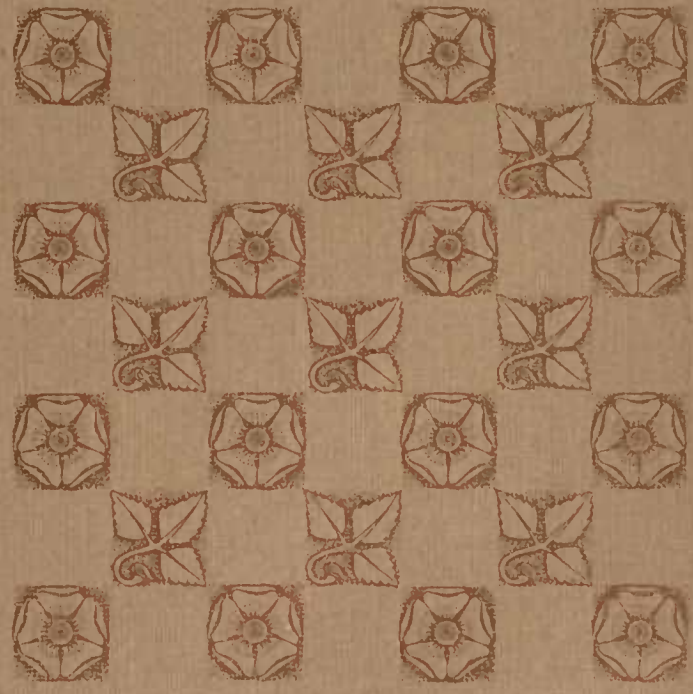
A.—Open Diaper, *one* type unit repeated.



B.—Close Diaper, *one* type unit repeated.



C.—Close Diaper, *two* type units repeated.



D.—Open Diaper, *two* type units repeated.

Printed upon S. Jones & Co.'s Primrose Camber Cover, stocked in 18×23, 36 lbs.; 20×25, 56 lbs.; 20½×30½, 72 lbs.; 23×36, 90 lbs.; at 3d. per lb., 5 ½

PLATE XXIV. — BORDERS.

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A.—Border composed of one type unit repeated.

ELGIN CELTIC CLUB

SESSION 1911-12

B.—Border composed of two type units repeated.

WILTS SOCIETY OF SAINT GEORGE

PROGRAMME OF ARRANGEMENTS

SESSION 1911-12

C.—Border composed of two type units repeated.

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H. W. CASLON & Co. LIMITED

TYPE FOUNDERS AND PRINTING MATERIAL MANUFACTURERS

82 & 83 CHISWELL ST.

LONDON, E.C.

ENGLAND

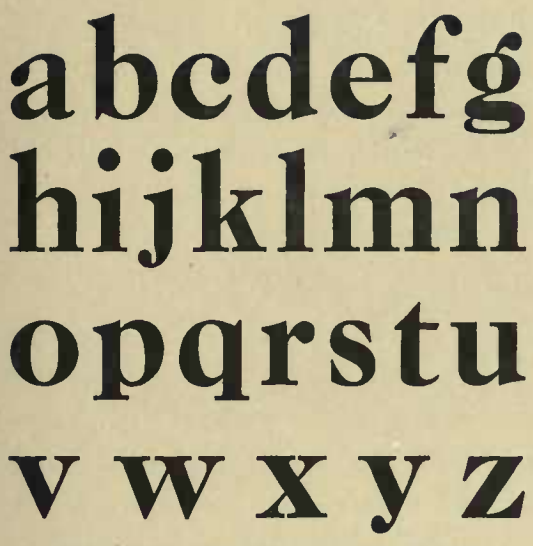
D.—Border composed of three type units repeated.

Type and Ornaments by H. W. CASLON & Co., Ltd., 82-83 Chiswell Street, London.

Paper—S. Jones & Co., 7 Bridewell Place, London, E.C.

"Bramble Rideau Cover," stocked in 18×23, 40 lbs.; 20½×25½, 50 lbs.; 20½×30½, 60 lbs.; 23×36, 80 lbs.; at 3½d. per lb., 5%.

480 sheets to the ream.

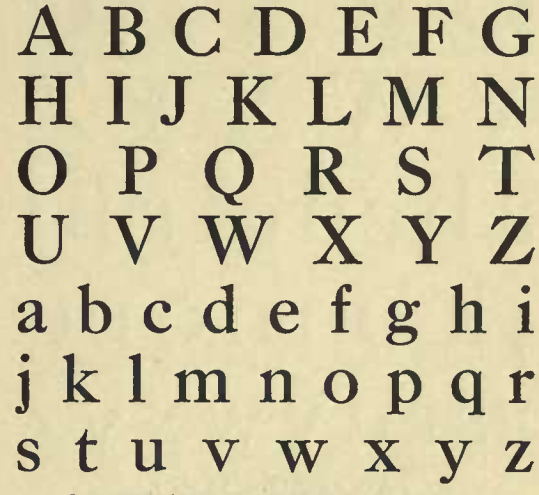


OLD FACE HEAVY Lower-case, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 43.

Beyond the necessary differences in the proportionate relations of black and white in this lower-case fount, the letters are practically the same as Old Face, upon which the fount is based. The shortness of the descenders in g, j, p, q, and y might be noticed, while the pen-dash usually found to the right of g rises upwards from the centre of the circular part of the letter. This fount is useful for any printing which must be readable at some distance. It is excellent in form, clear and distinct in character, but cannot compete for grace with the fount of which it is a near though less elegant relation.

For pure dignity and legibility, Old Style is unapproachable. A careful comparison of similar founts by different founders reveals only minor differences. These are mostly in relation to the proportionate breadths of thicks and thins, and while this feature affects the character of the letters, it does so to a limited extent only. The great differences in style are brought about principally by the proportions of the letters, the form of the rounded parts, and the character of the serifs. In the fount before us, particular attention might be called to the pleasing forms of C, D, M, N, S, T - Z, forms which in their essentials are closely allied to early Roman characters, upon which all modern type is based. It will be noticed that O



LINING OLD STYLE NO. 5, 24 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 44.

and Q are elliptical rather than circular, and that the fourth member of E is longer than the second, which is longer than the third; in the early forms those three were similar in length. There is a tendency to uniformity of width of capitals in this particular alphabet, which is common to all old style founts. This is especially noticeable in E, which is wider than the normal, and in H, O, and Q, which are narrower than normal.

The capitals of this fount have already been referred to as the acme of dignity and legibility. The same can be truly said of the lower-case letters. Like all forms which have persistently held their own against the march of time and invention, they cannot but contain within themselves much that is eminently legible as well as beautiful. Particular attention might be directed to the length of the ascenders and descenders in relation to the depth of the writing line, and though the descenders of p and q are rather shorter than the normal, these letters are perfectly legible, and fine in form. The termination of j is quaint and effective.

BASKERVILLE 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 45.

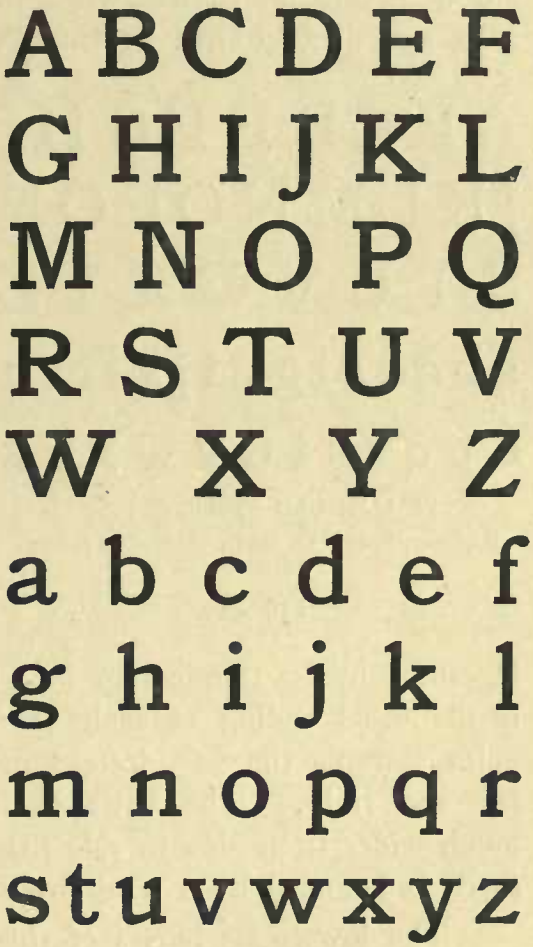
The forms in Fig. 45 are very beautiful, and almost defy analysis. A cursory comparison between them and those of old style would reveal few differences. An individual examination of the letters and especially of the thick members and serifs is necessary in attempting to say what really gives the fount its character. The main proportions and forms of the letters are identical, but the forms of the thick members are less mathematical and more subtle than the same features of an old style fount. Notice that the upper serifs,

BASKERVILLE 30 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 46.

The fount in Fig. 46 is very pure and distinctive. Some of the capital letters are unusually fine in form, particularly the D, Q, and S. The third member of R is unfortunate in shape. All the lower-case letters are of good shape and very legible. This fount of Baskerville was engraved and issued by H. W. Caslon & Co., Ltd., from French designs, in 1909.

The distinguishing features of this fount (Fig. 47) are the slight difference which exists between the widths of the thicks and of the thins, and the excessively heavy serifs. The serifs finish squarely on their ends, and are not especially of M and N, are slightly curved instead of being quite straight, and that the lower serifs join on very gradually to the main members. g is the most distinctive form among the lower-case letters. This fount was first issued by John Baskerville of Birmingham about the middle of the 18th century.



OLD STYLE ANTIQUE No. 7, 36 Point.
Miller & Richard, Edinburgh.

FIG. 47.

graduated in their joinings to the members to which they are attached, except where they are sloping as in E, F, T, and Z. Most of the letters are good in form and satisfactory in proportion.

The characteristics of the lower-case letters of this fount are the size and weight of the serifs, and the small variety in the thickness of the various members composing them. Each of the letters is clear and distinct in form, and well proportioned. This fount was first issued about 1865.

Italian Old Style is a fount in which the widths of the various letters are approximately similar, while the thicks and thins also are nearly uniform. It is also distinguished by thick serifs of square character, which give the impression of having been added abruptly, as if no attempt had been made to produce suave joinings. These characteristics have produced a fount which, while not without character, has an unrefined and unfinished air about it. Several letters, such as Q, R, and T, call for special attention. Notice the peculiar form of the tail of the Q. It seems to have intended to remain uncompromisingly upright, but afterwards changed its mind and its direction (to the right). The third member of R has a certain springy appearance about it, caused by its termination in a sharp point, rather than in a serif, which is the usual ending of such a member. In the T the upper serifs both point towards the left, instead of following the usual practice of pointing left and right. The bows B, P, and R are expanded so that they are much wider from side to side than from top to bottom, that is, the enclosed space is bounded by a semi-circle and two horizontal lines.

A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z
a b c d e f g h i j k l m n
o p q r s t u v w x y z

ITALIAN OLD STYLE, 24 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

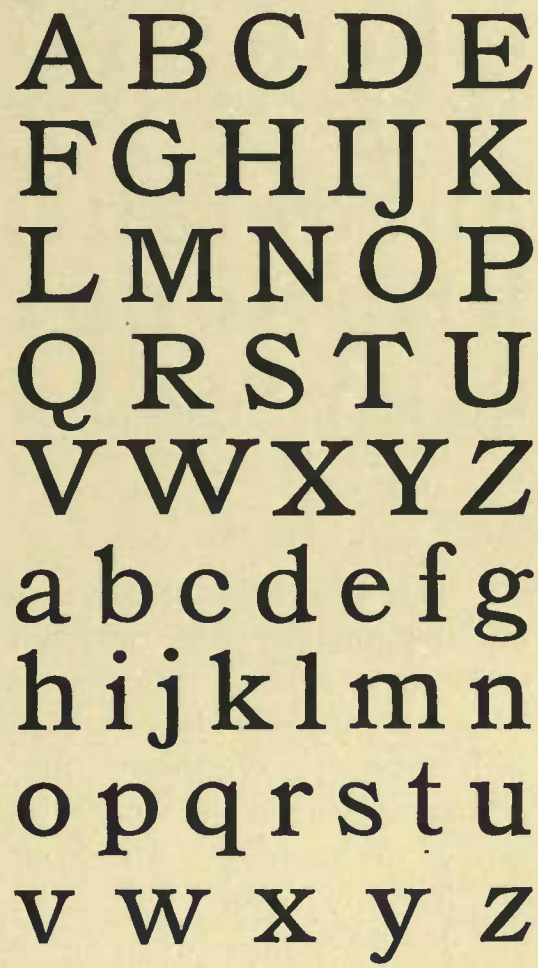
FIG. 48.

The lower-case letters of this fount have all the family characteristics. The serifs both at beginnings and endings show a wide variety of forms. b, d, h, i, j, k, l, m, n, p, r, u, and z have beginning serifs which slope,

while w, x, and y as usual have horizontal beginning serifs. t has no beginning serif. The endings are still more varied; three forms are used. a, c, e, and t have link endings as usual, f, h, i, k, l, m, n, p, q, and r have horizontal serif-endings, while the lower serifs of d, u, and z slope upwards. The fount was first issued in 1896.

Lining Antique Roman is a fount composed of well proportioned letters of heavy form, whose members are as nearly as possible of uniform thickness. Very considerable differences of widths exist between the various letters, though some of them, such as B, E, F, and L, might have been of better form had they been slightly narrower. The lower-case letters are particularly good in form. The fount was first issued in 1895.

Antique Old Style (Fig. 50) is a very distinctive and effective fount of Old Style letters, especially useful where emphasis is required. A certain heaviness is evident in this fount, due largely to the slight difference which exists between the thicks and thins, and also to the uncompromising squareness of the serifs. It will be noticed that in the lower-case letters, the ascenders and descenders are unusually short. This fount was engraved and issued by the Inland Type Foundry, St Louis, U.S.A., in 1902.



ANTIQUE ROMAN 36 Point

Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 49.

Lining Winchester (Fig. 51) is a fount both distinctive and of good form, though the letters are rather narrower than the normal and as nearly

ANTIQUE OLD STYLE 30 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 50.

This is a fount (Fig. 52) where capital forms are rather narrower and more nearly uniform than the normal. The root forms of the letters are identical with those of Winchester, the only differences being in the increased heaviness of the members. The fount was first issued in 1909.

No fewer than twenty-two of the De Vinne capitals (Fig. 53) are of identical width. This uniformity would be disastrous in a fount where the letters were less open. The shapes of M, R, and S are very distinctive; the latter appears in alternate forms. The characteristics of De Vinne letters are, uniform in width as possible. The difference between the thicks and thins is no more than noticeable, while the serifs are of a form very appropriate to the general character of the letter. Special characteristic features are evident in the lower-case forms, in the beginnings of a, c, and f, and in the terminations of g and y. These are usually ball-like in form, but in this fount the forms approach more nearly those naturally made by a reed-pen. Alternate forms of capital C and lower-case r are given. The fount was first issued in 1908.

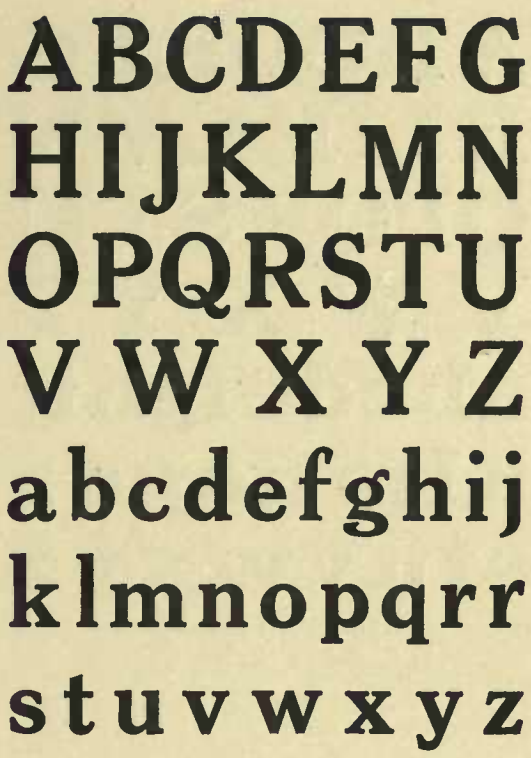
WINCHESTER OLD STYLE 36 Point
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 51.

however, more evident in the lower-case forms. It will be noticed that the thickest parts of the curves are not in the middle but under the middle, and this throws the weight of the letter downwards. This is noticeable in certain letters only, such as lower-case c, d, e, and q ; it is not apparent in the other round letters. Thin members in the lower-case letters of this fount are reduced to the minimum. The beginning of f and the ending of j are

DE VINNE 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 53.



WINCHESTER BOLD 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 52.

exceptional forms. The fount was issued in 1893.

This fount (Fig. 54), which is composed of well-proportioned letters, is specially characterised by a certain easy freedom in the "drawing" of its members. It is as if the letters had been made by a skilful penman, who at the moment was trying to avoid the "deadly dullness of perfect form," by writing his letters quickly and with

MORLAND 30 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 54.

a little less care than usual. The resultant effect is pleasing, and the fount is of undoubted value for certain kinds of printing. The angularity of the curves is particularly noticeable, as also is the absence of sharp terminations and acuteness at the joinings of the different members. This fount was designed, engraved, and issued by the Inland Type Foundry, St Louis, U.S.A., about 1890.

Lining Westminster is a fount very evidently based upon early Roman incised letters, several of the distinctive features of which are introduced. It will be noticed that the widths and relative height of the letters vary very considerably, while the difference between the thicks and thins is hardly perceptible. Most of the serifs are also very short. All of these features are common to the early Roman letters incised in stone. The bows in B, P, and R do not quite join to the vertical members, while the horizontal members of E and F are all of equal length, early forms which have been retained with good effect in this fount. Notice the great width of H, N, and T, and the extreme narrowness of B, P, R, and S, which features are characteristic of early forms, and in distinct contrast to the modern tendency to make all the capital letters approximately the same width. While it is true that a certain uniformity

LINING WESTMINSTER OLD STYLE, 24 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 55.

is necessary in all the capital letters of one fount, this should be restricted to such features as the relations of thicks and thins, and the character of serifs and curves. It must not be forgotten that the proportion of width to height in a letter is one of its most distinguishing features, especially when seen from a distance, so that when the width of a letter is made less or greater than its normal, it loses its characteristic proportion, and therefore becomes less legible—a grave weakness where legibility is all-important. Certain peculiarities of some of the letters of this fount may be mentioned. Notice the narrowness of the D and K, and the more than normal width of the J, though in the latter case decreased legibility cannot be urged against the broader form. The long upper serifs projecting to right and left only of the M, and the extreme shortness of its second and third members, are worthy of attention, as also are the extreme shortness of the tail of the Q and the convex form of the third member of the R. The form of the W is a real double V, making it a very broad letter. None of the other letters calls for any special remark ; the whole alphabet has a certain quaint pleasing effect, without at the same time having lost any of its legibility.

In the lower-case letters of Lining Westminster Old Style the difference between the thicks and thins is hardly perceptible. The main member of a is sloping, a rare feature in modern type forms of this letter, though a very common one in some of the middle-age scripts. The sloping position occupied by the cross-bar of the e and the extreme shortness of the tail of the g are special features. The cross-bars of f and t are unusually lengthy, while the mixed beginning serifs in u are unusual. The fount was first issued in 1905.

Lining Carlton (Fig. 56) is a fount of very light and dainty character based upon a very pure form of pen-written letters. Several of the letters have alternate forms, such as A, P, and Y. These variations add a certain piquancy and charm to the fount, which when not overdone has a distinct artistic value. The varieties of the same letter suggest the human element, which is seldom evident in the product of a printing machine.

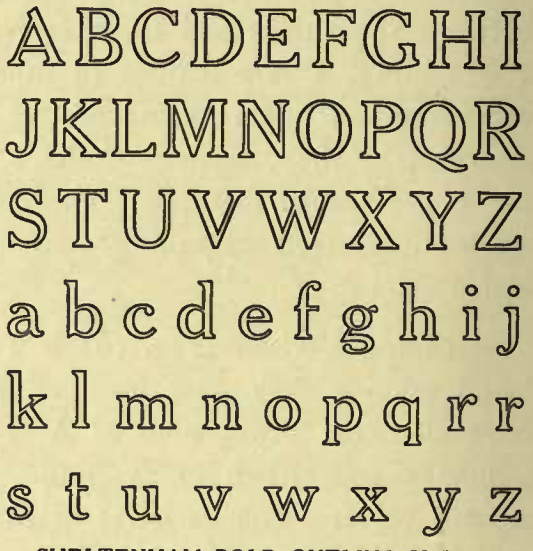
Most of the letters are beautifully proportioned, particularly C, D, G,

LINING CARLTON 30 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 56.

M, N, O, Q, S, and V to Z. While it is unnecessary to insist too much upon a strict adherence to early standard forms, the sub-divisions of B, P, and R would not have been any less pleasing had they been more nearly uniform in size. The letters H and T are narrower than the normal, while the joinings of B, E, F, K, P, and R are all either above or below the middle of the first member. Notice that the third member of E and F is apparently longer than the second; in reality it is exactly the same length as the second member, together with the sloping serif. The old form of the U, which contains a thick second member, has been adhered to. The form of the W is particularly chaste.

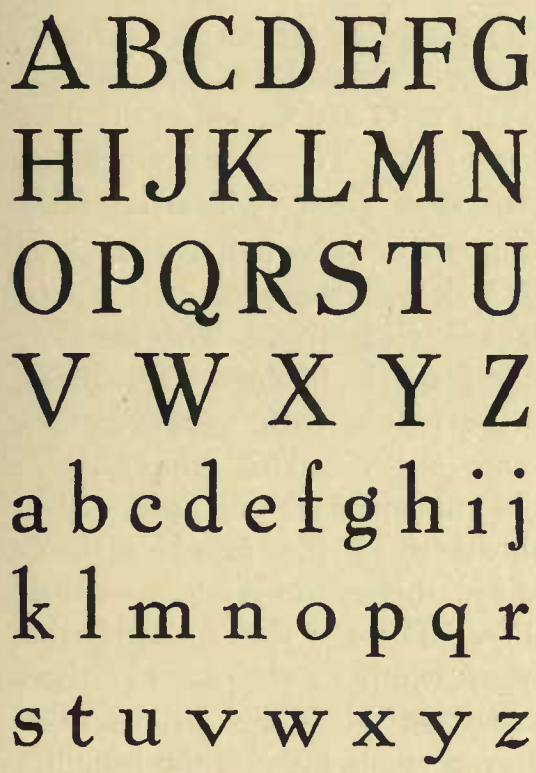
The lower-case letters exhibit the same characteristics of lightness and daintiness as the capitals of the same fount. The skill of the type-designer is taxed in a greater degree when designing lower-case letters than when deciding upon the forms of capitals. In the fount before us the ascenders and descenders are of abnormal length; this is particularly noticeable in the case of f, which goes below as well as above the writing-line. The unusual length of these parts produces an open and light character when the type is composed, and this of course is one of



CHELTENHAM BOLD OUTLINE 30 Point.
Messrs H. W. Caslon & Co., Ltd., London.

FIG. 57.

the characteristics of printing produced by this face. Following the variety of width of letters, already noticed in the capitals of this fount, we find that f, k, and r appear specially narrow, while m appears specially broad. The two v's in w are so placed as to produce a narrow letter, which is, however, very pleasing. This fount is of German design, and was produced in the Caslon Letter Foundry in 1910.



HALLAMSHIRE OLD STYLE 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 59.

ATHENIAN 30 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

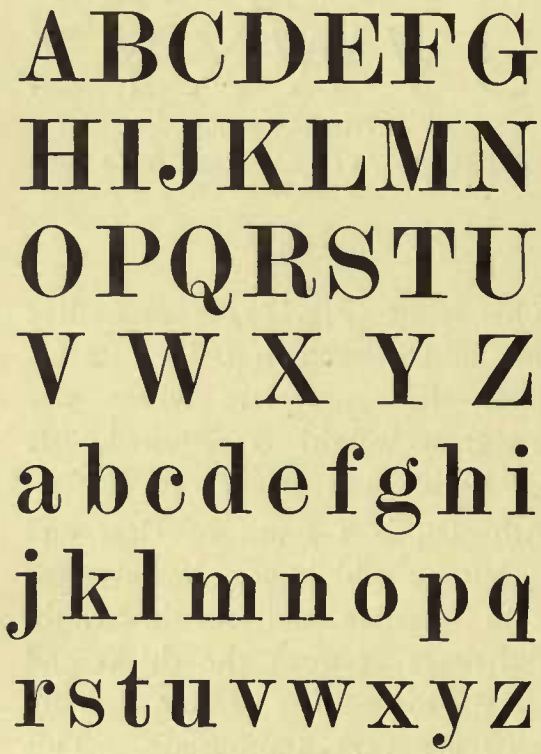
FIG. 58.

This fount (Fig. 57) is an outline variation of Cheltenham Bold. Its use in display is appropriate where size without great weight is required. It is clear, legible, and of very good form.

Athenian is a fount of clear and legible letters, which are, however, as nearly as possible uniform in width. The difference between the thicks and thins is no more than perceptible, and the serifs are very appropriate. This fount was first issued in 1889.

Hallamshire Old Style is a fount having the general proportions of its capitals distinctly narrow. The letters owe little of their character to traditional forms. This is particularly evident in the curves of B, P, R, and S, and in the omission of part of the double V form of W. A disregard for mathematical

precision in the drawing of the letters, has allowed an element of freedom to enter into the rendering of the forms, which gives the fount its unconventional character. Notice that the second member of X is not quite straight. In the lower-case forms the great length of the ascenders is very noticeable. The fount was first issued in 1904.

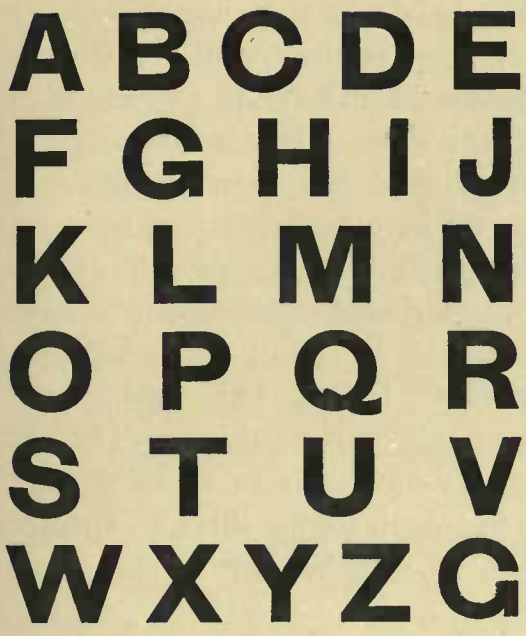


LINING MODERN No. 20, 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 60.

The principal characteristics of the capitals of this fount are, the comparative similarity of proportion of the letters, twenty-two of which are practically identical in width, the great disproportion between the thicks and thins, and the slenderness, unusual length, and abrupt joinings of the serifs. Characteristic details are noticeable in the form of the tails of G and Q, and in the third member of R. The lower-case letters have the same general characteristics.

This fount (Fig. 61) lays no claim to artistic consideration, but it is at least legible and distinctive. The members are all of equal thickness throughout, while the letters, with one exception, have no serifs. The white spaces between the members are greater than the thickness of the members themselves, and this openness increases their legibility. There is also a considerable variety of width in the letters, where no fewer than nine different proportions between width and height exist. As has been already stated, these distinctive proportions increase the legibility of the letters. The one letter of this series which has a serif, is G ; it seems unnecessarily complicated, and would be quite as legible and certainly more appropriate, were the serif dispensed with and the form made as shown (after Z).



GROTESQUE CAPITALS, 36 Point.
Miller & Richard, Edinburgh.

FIG. 61.

The capitals of fount illustrated in Fig. 62 defy criticism from any artistic standpoint. Having no variety between its thicks and thins, nor any serifs, it may be said to be the last word in legible lettering. Abandoning the art standpoint and regarding the fount as merely utilitarian, it may be worth while to discuss it purely from this point of view.

Having been designed and produced to meet the wants of printers and the clients of printers, who desire the maximum number of words per line of this size, presumably without any loss of legibility, it cannot be said even from this point of view to be a success. In the endeavour to produce such letters, much of their legibility has been sacrificed to the exigencies of space. It must be remembered that the characteristic root form of a letter is produced by certain relations which exist between extreme width and height, as well as by the form of its separate parts. In the fount before us, twenty of the letters are identical in width, while four are narrower and two wider than the normal. This alone is sufficient to decrease their legibility, but as the white spaces between the members are also narrower in most cases than the members themselves, they

SANS-SERIF No. 7, 36 Point.
Miller & Richard, Edinburgh.

FIG. 62.

are by this means made still less legible. The height of the characteristically narrow letters E, F, and Q is four times as great as their width, while the wide letters M and W are twice as high as they are wide. Greater legibility and distinctness and the same quantity of copy could have been obtained by using a grotesque fount, say two-thirds the height. The same result might have been reached by using the same proportions of letters, but having the members only half as thick. The use of such a fount seems to be an attempt to get too much for too little, an attempt to reap where the sowing has been niggardly.

ABCDEF
GHIJK
LMNOP
QRSTTU
VWXYZ
abcdefghij
klmnopqr
stuvwxyz

OLD FACE ITALIC, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 63.

The remarks made in reference to the capitals of this fount apply equally to those of the lower-case. Some of the letters here are unusually unhappy, particularly f, j, and r. Twenty-one of the letters are uniform in width, while three are under, and two over the normal. The fount was first issued in 1906.

Old Face Italic, based upon Old Face Roman, was cut by Caslon I. in 1720. The letters are a very close imitation of Roman Old Face, with the alterations necessary for the slope. Italic writing was a script much in use in Italy in the 16th century. The slope existed in this script for the same reason as it exists in modern writing. It is a matter of following the line of least resistance, and, as we write from

left to right our writing naturally slopes towards the right. The free character of Italic writing made it deservedly popular among Italian scribes. The writing of books entirely composed of Roman capitals must have been a tedious operation to the penman, who would find in a sloping style more freedom and more opportunity for an occasional flourish to enable him to show his skill, and get off the conventional track once in a while. Some of the letters in the alphabet under review, J, Q, T, Y, show this desire of the scribe for a little freedom.

The first fount of Italic was cut for a French printer named Jenson in Venice, and was intended originally for the printing of entire books. This was carried into effect by Jenson, who printed an edition of Virgil entirely in Italic in 1470. Without doubt Italic is a beautiful face, and it is a matter for regret that it is not more extensively used. For verse it is ideal, and as it is eminently readable, and occupies less space than Roman, it ought to appeal to all who attempt to get as much printing as possible into a page.

It is interesting to observe that Old Face Italic lower-case letters of all types approach most nearly to the form of good modern handwriting. In it the connectors between one letter and another are plainly visible even though they are without any function, seeing that the letters are not joined to each other. Some of the letters are particularly graceful in form, noticeably the f, g, p, v, w, and z. One characteristic of this fount is the harmony which exists between all the letters in it. v, w, x, y, and z, even though they are unlike any of the other letters in detail, yet are quite in harmony with them. This is more than can be truthfully said of the same letters in most of the other lower-case founts, in which they seem nearer relations of the capitals than of their fellows in the lower-case.

The fount Fig. 64, based upon Cheltenham Old Style, offers the printer alternate forms of several of the letters. The opportunity of occasionally introducing a more ornamental form of capital, if not overdone, gives a certain variety, not out of keeping, in the use of Italics. Such forms must of course be introduced sparingly; too much of a good thing, no matter how good, is good for nothing. Such ornamental variations cease to be

CHELTENHAM OLD STYLE, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 64.

either ornaments or variations, if used upon every possible occasion. The relation between the thicks and thins of this fount is, of course, similar to that existing in the parent fount, and while this is right and appropriate in the parent, it is hardly so in the case of the Italic. The latter shows the marked influence of the reed pen, which renders very pronounced the difference between thicks and thins.

An alternate form is a characteristic feature of some of the letters of this lower-case alphabet where h, w, and y are in duplicate. The similarity between the thicks and thins of the lower-case forms is as unfortunate as it is in the capitals. On the whole this fount bears comparison badly with Old Face Italic, the progenitor of all italic founts. Whether it is because the eye through long usage has become accustomed to the Old Face Italic forms, or whether these original forms are so much more beautiful in themselves, are points upon which arguments could be based. It is certainly true that the Old Face Italic letters are more beautiful to look upon and more pleasant to read than those under review. This fount was issued along with Cheltenham Old Style Roman in 1900.

PLATE XXV.

ROSE, THISTLE, AND SPIRAL PANELS AND TAIL PIECES.

Ornaments by H. W. Caslon & Co., Ltd., 82 and 83 Chiswell Street, London, E.C.

PLATE XXVI.

CHRISTMAS CARDS.

MAY THE COMING YEAR BRING YOU BETTER THAN YOU EXPECT — OR DESERVE.

Mr & Mrs JOHN BELL
27 ROSE ST., YORK.

Christmas 1911.

Xmas  1911

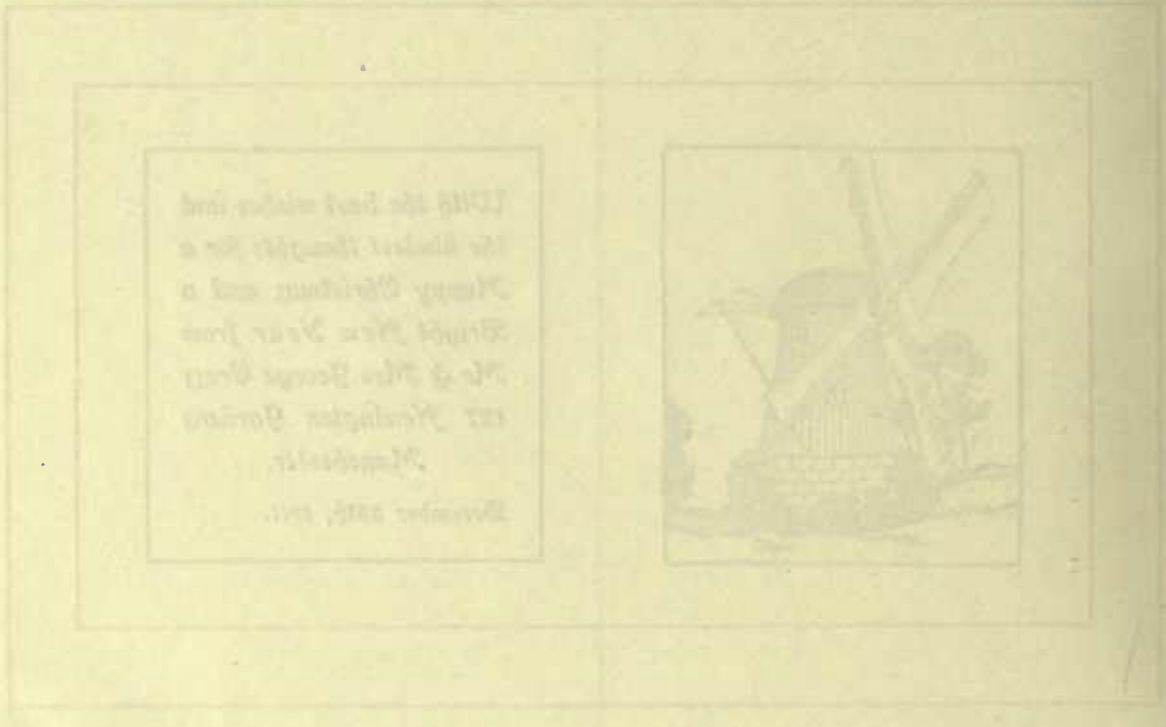
Mr & Mrs J. Martin desire to extend their Best Wishes for this Christmas Season to all their friends.

Manfield
Boroughbridge
Yorkshire.

With the best wishes and the kindest thoughts for a Happy Christmas and a Bright New Year from Mr & Mrs George Cross 127 Newington Gardens Manchester.

December 25th, 1911.

Paper—"Toned M.F. Printing"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.



STEPHENSON, BLAKE & CO. AND
SIR CHARLES REED & SONS,
LETTER FOUNDERS, SHEFFIELD.

1757
COTTRELL

1763
JACKSON

1794
THORNE

1792
CASLON

1838
BESLEY

1819
BLAKE

1849
FOX

1819
GARNETT

1861
REED

1830
STEPHENSON

1877
SIR CHARLES
REED & SONS

1841
STEPHENSON
BLAKE & CO.

PICTURE TO YOURSELF

the mediæval monk, sitting in the Scriptorium, laboriously adding letter to letter and page to page, and contrast with this the modern method of printing a book. What a period of invention and industrial activity lies between the two! Since 1757 the Stephensons, Blakes, Reeds, and their predecessors, have been intimately identified with this development. The prestige, energy, and progressiveness of the firm make Stephenson, Blake and Co. and Sir Charles Reed & Sons an even greater necessity to-day than their predecessors were to the printer of a century ago.

STEPHENSON, BLAKE & CO. AND
SIR CHARLES REED & SONS,
WERE AMALGAMATED IN 1906.

Type by STEPHENSON, BLAKE & Co. and Sir CHARLES REED & SONS, Sheffield,
18 point Baskerville Old Style; 18 point Old Face No. 5; 8 point Winchester.

Paper—"Glazed Amber"—The Culter Mills Paper Co., Ltd., Mill No. 9, Peterculter, Aberdeenshire.

PLATE XXVIII.—LETTER HEADINGS.

HENDERSON & MACNAUGHT

Always in Stock:
SPADES . TROWELS
. LAWN MOWERS .
CANES . . RAFFIA
AND
Every Garden Requisite.

In their Season:
BULBS AND SEEDS
. BEDDING OUT .
PLANTS IN POTS
AND
Everything for the Garden.

8 KNOX ST. GLASGOW.

SMITH & KEMP

NURSERYMEN
SEEDSMEN
FLORISTS

725 GEORGE STREET
EDINBURGH

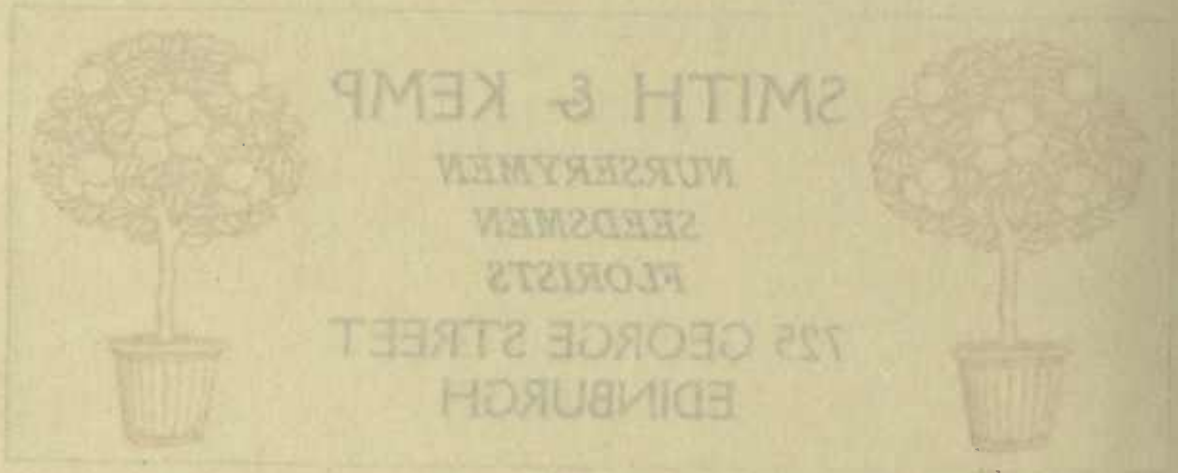
HAMPTON

FURNISHING
LEA ROAD

BROTHERS

IRONMONGERS
SOUTHSEA

Type by H. W. CASLON & Co., Ltd., London, and STEPHENSON, BLAKE & Co. and Sir CHARLES REED & SONS, Sheffield.
Paper—"Nechtan Imperial Linen" Extra Strong—JOHN B. MACNAUGHTON, 74 York Street, Glasgow.



"NECHTAN"

Imperial Linen
EXTRA STRONG

THIS WATERMARK IS A GUARANTEE of quality and strength, and the distinguishing mark of NECHTAN PAPER, which takes a clear and sharp impression from the type-writer and is equally satisfactory for use with the pen. The paper is stocked and boxed in both letter and legal sizes, as well as in Large Post 15, 18, 21 and 23 lb. and Dbl. Large Post 30, 36, 42 and 46 lb.

FOUR THICKNESSES but only ONE QUALITY.

Samples and Prices for the asking, from
JOHN B. MACNAUGHTON,
AGENT FOR ALL CLASSES OF PAPERS,
74 YORK ST., GLASGOW.

Type by STEPHENSON, BLAKE & Co. and Sir CHARLES REED & SONS, Sheffield.
Old Style No. 5—48 point and 18 point; Windsor 14 point; Italian Old Style Italic, 14 point.

Paper—"Nechtan Imperial Linen" Extra Strong—JOHN B. MACNAUGHTON, 74 York Street, Glasgow.

PLATE XXX.

MENU AND INVITATION CARDS.

MENU

SOUP

Clear Tomato

FISH

Baked Halibut Salmon

JOINTS

Roast Beef Roast Lamb

SWEETS

Cabinet Pudding Apple Tart

Fruit Salad

TEA COFFEE ICES

TOASTS

"THE KING"

Proposed by
THE CHAIRMAN

"OUR GUESTS"

Proposer	*Responder*
Mr MASON	Mr MILLER

"THE PRESIDENT"

Proposer	*Responder*
Mr BRAND	Mr ANDREW

"THE LADIES"

Proposer	*Responder*
Mr MANDER	Mr PURVIS

THE BIRMINGHAM ART SOCIETY TENTH ANNUAL DINNER.

The President and Council request the honour of

Company to Dinner in the Art Galleries, on the Evening of Tuesday, 24th October, at Six o'clock.

R.S.V.P to Charles M. Swan, 25 Guelder Road, Birmingham.

Paper—"Glazed Amber"—The Culter Mills Paper Co., Ltd., Mill No. 9, Petereulter, Aberdeenshire.

PLATE XXXI.—TITLE PAGE.

THE LIFE OF THE GREEKS & ROMANS

DESCRIBED FROM
ANTIQUE MONUMENTS

BY

E. GÜHL & W. KONER

TRANSLATED FROM THE
THIRD GERMAN EDITION

BY

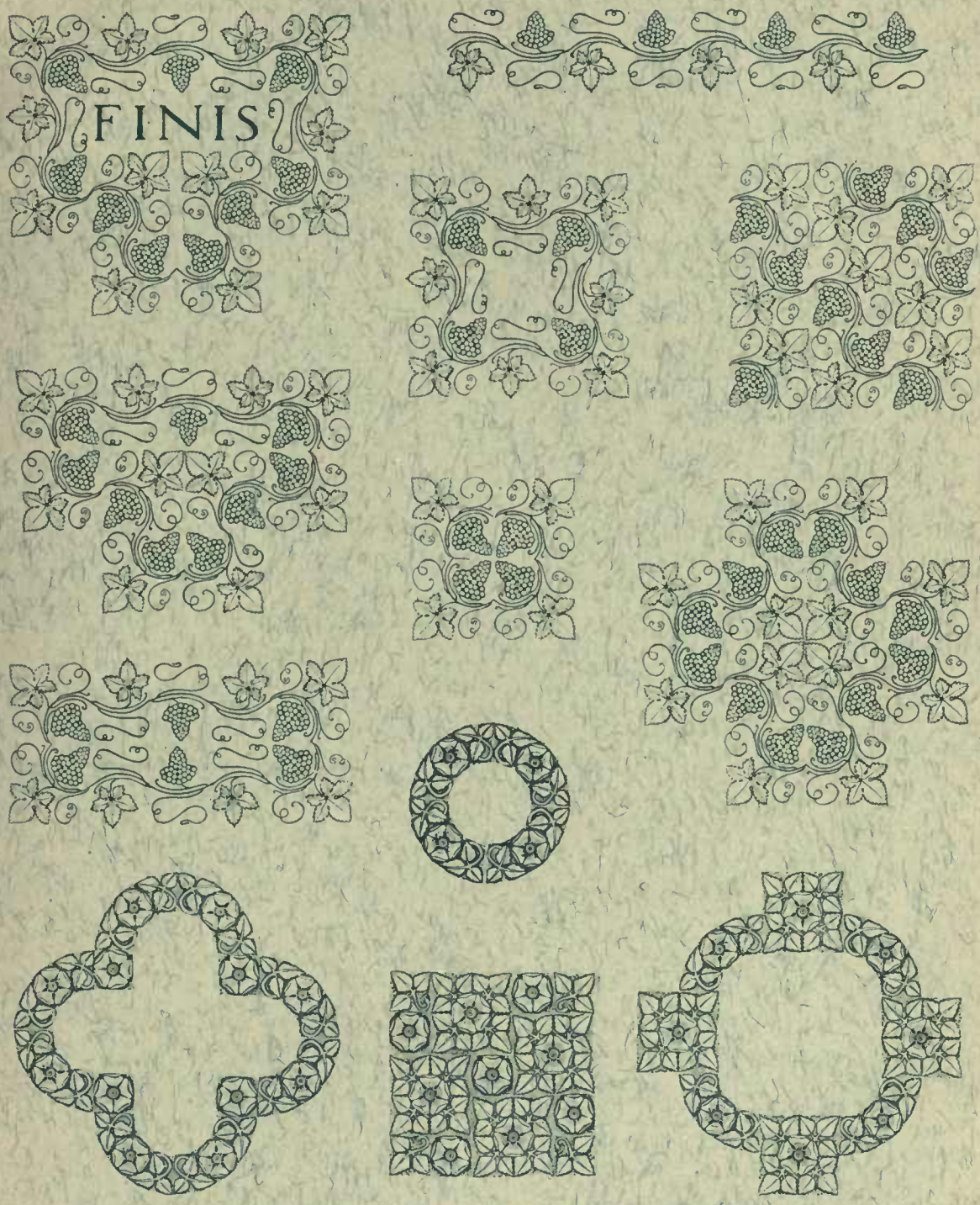
F. HUEFFER

LONDON:
CHATTO & WINDUS, PICCADILLY

Paper—"Toned M.F. Printing"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.

PLATE XXXII.

Eight ornaments composed of three Vine units repeated.



Four ornaments composed of four Rose units repeated.

Ornaments by H. W. Caslon & Co., Ltd., 82 and 83 Chiswell Street, London, E.C.

The capitals of Fig. 65 are more staid and sober in form than those of Cheltenham Italic. No alternate forms are included nor are any of the letters flourished. Even the Q, which is usually a lively letter in Italic founts, is severe and self-contained. Few, if any, of the letters call for remark; being undistinguished, they do not invite either condemnation or praise.

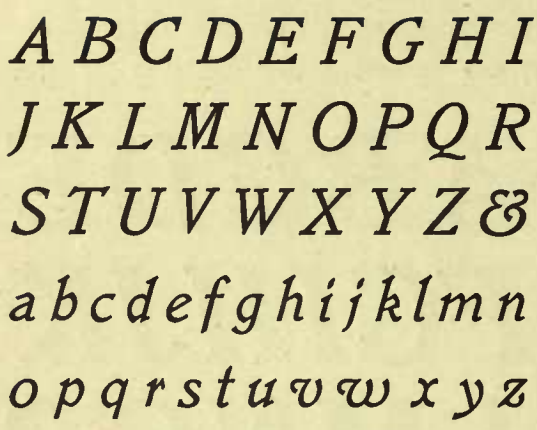
A comparison between this lower-case fount and Cheltenham Italic, its parent, shows very few essential differences indeed. It is in fact the last word in Italic founts in the direction of heavy respectable convention. When one compares it with Old Face Caslon Italic, one might be excused for thinking of the Cheltenham Heavy Italic as being the Old Face Italic grown to years of discretion and respectable ponderosity. All the sparkle and gaiety of youth have departed, and only conventional respectability remains.

Fig. 66 is a very graceful fount of capitals, based upon Italian Old Style, and having the characteristics common to this family. Notice the almost equal breadth of thicks and thins, and the squarely finished serifs. Few of the letters call for special mention, except the Q, which has a very graceful tail; the form of the whole letter suggests the Q of good modern penmanship.

This lower-case Italic has a character

CHELTENHAM HEAVY ITALIC, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 65.

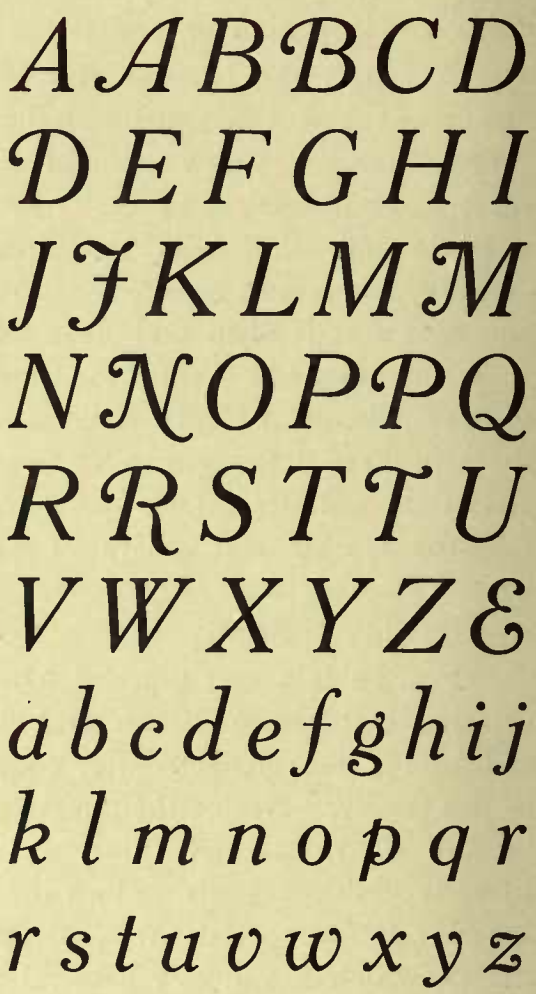


LINING ITALIAN Old Style Italic, 24 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 66.

letters includes a certain subtle spring, imparting to their forms a lively and sturdy appearance, which is pleasing and distinctive. In some of the forms there is a simplicity which suggests a breaking away from historic precedent, without impairing in any way the legibility of the letters. The absence of terminal serifs is evident in f, g, h, k, m, n, p, q, and r, while d and u retain these features. The z, like most other forms of the same character, seems out of harmony with the other letters, being simply a capital z made smaller. Vestiges of joinings are still evident in the h, i, k, l, m, n, and t. The "and" shows clearly that it is a combination of e and t. This fount was first issued in 1901.

which is in harmony with the capitals of the same fount. The very slight difference between thicks and thins, evident throughout all the members of the family, is particularly noticeable here. The general character of the

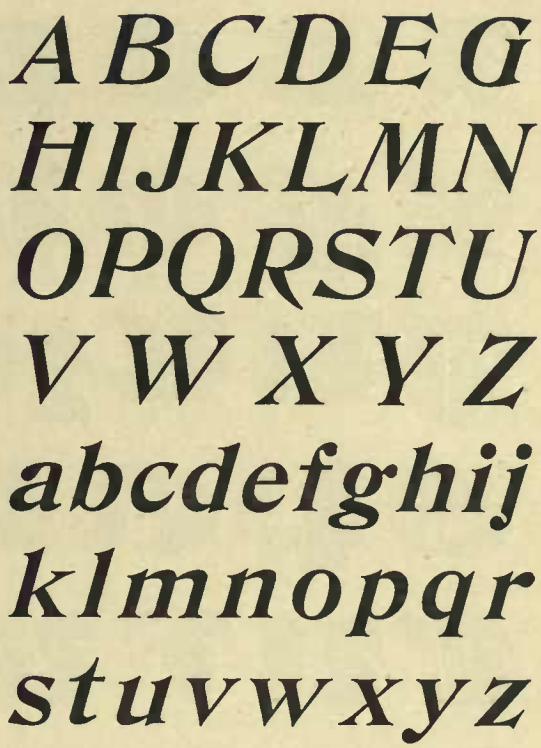


WINCHESTER OLD STYLE ITALIC 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 67.

Winchester Old Style (Fig. 67) is a very graceful fount of Italics. The capitals consist of thirty-six sorts, ten of the letters being issued in two forms. The lower-case letters are very distinctive in their character, which is not quite similar to that of the capitals, being somewhat angular, as in v and w. The angularity of the curves is evident to a less degree in the other lower-case letters. The fount was first issued in 1909.

De Vinne Italic (Fig. 68) is in all respects identical with De Vinne except in the slope of its members. Only one form each of capital and lower-case s is however given. The fount was issued first in 1894.



DE VINNE ITALIC 36 Point

Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 68.

MORLAND ITALIC 30 Point.

H. W. Caslon & Co., Ltd., London.

FIG. 69.

Morland Italic (Fig. 69) has all the general characteristics of its parent Morland. Some of the forms of the individual letters are very pleasing, especially the capitals Q, T, and D, and lower-case letters v, w, y, and z. Lower-case h is perhaps the least satisfactory of the whole series. The fount was issued about 1890.

ORIGINAL BLACK, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 70.

Writing of Gothic character was confined almost entirely to the nations of Northern Europe, and as a natural result we find that the types cut by Gutenberg of Metz, the first printer, were imitations of pen-written letters having this character. The principal feature of Gothic or Black Letter is the placing close together of the heavy straight upright members, while the white inter-spaces are often narrower than the members themselves. Black Letter is seldom round in character; in its extreme form it consists of heavy members connected by short angular thick and thin joinings. Like Gothic Architecture, it never really found a home among the Southern nations, and any examples of it produced away from its native place, show the influence of the people among whom it found itself.

When written or printed of a large size, as in the work of the early founder printers, while yet their skill was insufficient to cut type of pearl or diamond size, it is readable, but as may be seen in Modern German Newspaper or book type, to the unaccustomed eye it may be said to be quite illegible. Its use in modern times in countries which for centuries have had the clear Roman type, is limited to initials, which are very often printed in red (rubricated). The capitals of this fount are never used alone, except by an occasional sign painter more daring than usual, whose inscription over the door of a shop usually leaves the passer-by as wise as ever as to the purport of the inscription.

Its use by compositors should be rare, and only then of a size which is readable; it is questionable if any fount under 12 point fulfils this condition. Black Letter capitals of the size illustrated (48 point) are effective as initials, especially if rubricated. As is well known, rubricated letters appear smaller and lighter than the same letters printed in black. The fount under consideration is very heavy, and is very distinctive in character; it is well named "Original" Black. The letters are very wide in relation to their height, averaging over thirteen units in width to ten units in height. Some of the letters are not very individual, as, for instance, the K, which is very like an R, while I and J are identical.

Black Letters, apart from their form, differ much from Roman ones. In the latter characters no unnecessary parts are introduced beyond serifs or beginnings and finishings; in Black Letter or Gothic, on the other hand, and especially in capitals, many of the features are introduced for ornament only, thereby confounding the root forms. Thus in C, in the alphabet under consideration, one member only is necessary, while the three added ones tend to make the C less distinguishable. Other letters such as E, H, N, W, etc., contain unnecessary ornaments.

The lower-case letters are extremely heavy, following the same proportions as the capitals. Both ascenders and descenders are very short. Notice the slope to the left of the ascender of d, a form evolved during the period when uncials were coming into use. The beginnings of the ascenders in b, h, k, and l, and the terminations of the descenders of p and q

BLACK No. 4, 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 71.

are split, a form naturally produced by the use of a soft reed pen. Each letter is quite distinctive. One's attention is attracted by the peculiar ornamental pen-dash seen at the left sides of b, h, and k, and to the curious misshapen dash at the right hand of g. Notice that the interspaces are always smaller in area than any of the members; this makes for illegibility. This fount was designed and engraved by Caslon I. about 1740.

The letters in Fig. 71 are very harmonious in relation to one another, though the O, N, and V are apt to be confounded with one another. The form of these capitals shows evidence of the pen of the scribe, and all the different details are such as would be naturally made by a reed pen skilfully used. The letters are "square" in character, *i.e.*, they are composed mostly of upright heavy and thin members, while comparatively few curves are employed. In considering this fount also it is necessary to remember that some of the members are used to distinguish the form, while others are added purely as ornament. For instance, none of the thin verticals contribute to the characteristic form of the letters, nor do the short sloping thin bars connected together by short thick verticals;

these are added solely for the purpose of giving a sumptuous effect, and as has been noticed in the case of O, N, and V, confuse rather than differentiate the forms. A comparison of Black Letter capitals generally and Roman capitals reveals the fact that in the latter characters the type or root form is always evident. Thus, in A, B, C, D, E, etc., the serifs are added only by way of workmanlike finishings, while the thicks and thins in Roman letters are the natural forms produced by the use of a chisel-shaped point.

ANGLO-SAXON 48 Point.
H. W. Caslon & Co., Ltd., London.

FIG. 72.

The lower-case letters of this fount are extremely good and distinct in form. They suggest the source of their origin (the reed pen), while each is clear and legible, having no unnecessary parts. Black No. 4 was engraved and issued early in the 19th century.

This Black Letter face (Fig. 72) is quite distinctive in character and utterly unlike Black No. 4. Most of the principal members are curved, usually beginning thin, swelling gradually to the greatest thickness, and finishing thin. This imparts a distinctly flourished character to the fount, thereby making it more ornamental, and rather less legible than Black No. 4. The individual letters are, however, more distinctive, no one being at all likely to be mistaken for any other. The name Anglo-Saxon, by the way, is a misnomer, since Anglo-Saxon script has a character quite distinct from that of this face.

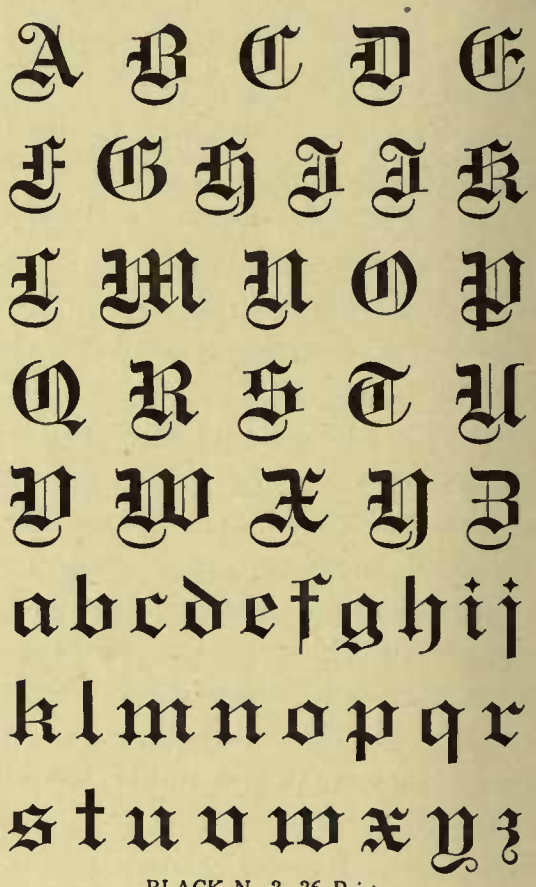
TUDOR BLACK 36 Point.
Miller & Richard, Edinburgh.

FIG. 73.

the thick members. They do not seem to grow out naturally, and give therefore a stiff effect. The fount was issued early in the 19th century.

Fig. 73 is a fount of Black Letter of a particularly free style. Being open in character, it is very legible and distinctive. No one of the letters is at all likely to be mistaken for another,

The lower-case letters of this fount are very much narrower than those of Black No. 4, while naturally also the angles between the members are less nearly equal, than those of that fount. The joinings of the thicks and thins show no natural thickenings, while the short sloping serifs or connectors seem to be inserted too low or too high in



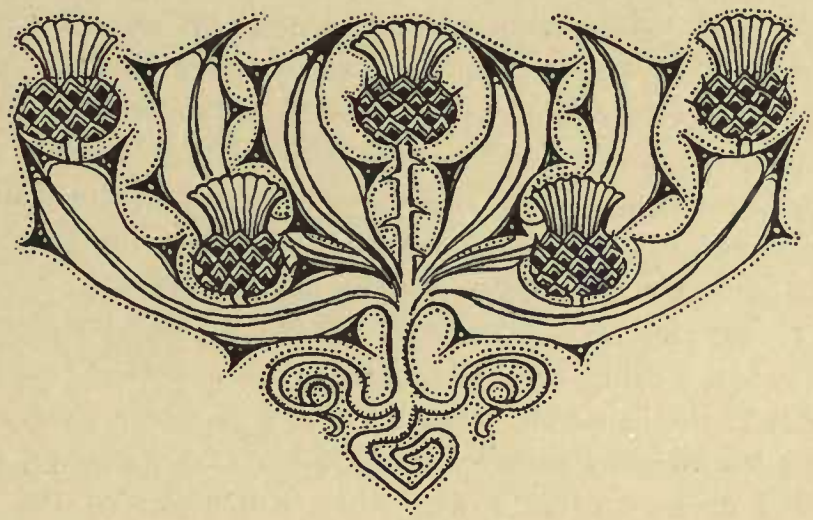
BLACK No 3, 36 Point.
Stephenson, Blake & Co. and Sir Charles Reed & Sons, Sheffield.

FIG. 74.

a fault common in many Gothic founts. Most of the letters show their pen origin, particularly A, E, K, L, P, T, and V. The terminations of H, I, J, M, X, and Y could not have been produced naturally with the pen, while the thin members of C, G, and T would have been more appropriate had they been vertical instead of being slightly sloped.

The lower-case letters here are in harmony with the capitals of the same fount, having their good qualities as well as their defects. The letters which seem particularly in harmony with the general character of the fount are a, c, d, e, g, h, o, p, q, s, v, w, y, and z, while most of the others are more stiff in form, suggesting the use of a stiffer and less flexible pen. Tudor Black was derived from an old MS., adapted for type, and issued by Miller & Richard in 1878.

Black No. 3 (Fig. 74) is a fount of black letters of more than normal width. No fewer than nineteen of the capitals possess a similar ornamental flourish which extends below the line. This feature is so important that it practically dominates each of these nineteen letters, and makes them approximately similar in shape. The lower-case forms are particularly good, though the beginnings of b, h, k, l, and t, and the endings of j, p, and q have rather an unfinished appearance. The fount was issued first in 1885.



CHAPTER FIVE.

THE SUBJECT MATTER OF ADVERTISEMENTS.

ADVERTISEMENT by means of circulars, booklets, and pages in magazines occupies such an important place in modern business, that in such a book as this a special chapter seems necessary for the discussion of its principles, and the illustration of its practice. By means of printed advertisements the manufacturer may reach thousands of possible buyers. Whether his advertisement brings an adequate return or not depends upon several things, among which are the quality and price of his goods, and his power of appeal, or the ability he displays in framing his advertisement, to which must be added the compositor's capacity in displaying the type used. Should any one of these factors be unsatisfactory the likelihood is that the money spent on the advertisement is to a large extent thrown away. In fairness to the compositor it should be said that no amount of skill in type-display will be of much avail if the advertisement is badly worded or the qualities of the wares ineffectively stated. Provided that the subject matter of the advertisement is ably written, much can be done by the compositor to make the advertisement inviting and attractive. The business advertisement or booklet printed upon a low grade paper and from poor type badly displayed, cannot long escape the waste-paper basket; whereas the attractive booklet of good size and shape, with its message interestingly stated, pleasingly displayed in good readable type, and well printed upon attractive paper, cannot fail to achieve its end, and its pleasant appearance and character will save it at least for some time from the fate of all advertising literature.

Advertisement writing, especially for daily newspapers, is now a recognised business, and is in the hands of "experts," many of whom seem to think that if they use a "sufficiently sensational succession of unfortunate and unusual adjectives," and contrive so to arrange their sentences that the verbs occur

where the nouns should be, they have attracted the attention of the buying public. They may also have brought upon themselves, and the firms they represent, the scorn of many who respect the English language. The art of advertising, like the art of salesmanship, is a fine one, and tact, good-humour, and honesty are just as necessary in the one as in the other. "A well-designed and worded advertisement should produce in the mind of the possible buyer six successive mental states :—*First*, favourable attention ; *second*, interest ; *third*, desire ; *fourth*, confidence ; *fifth*, action ; *sixth*, satisfaction. Any one who can by means of a well arranged and displayed advertisement induce these six mental states in the minds of a large percentage of people within the area of his possible clientage, is a business builder, and will have a profitable business." (Arthur Frederick Sheldon. *The Fra*, September 1910.) Twenty years ago the public were cajoled by paragraphs in provincial newspapers, which, beginning as stories, ended by proclaiming the virtues of somebody's Cough Mixture or Antibilious Pills. At the same period the attention of the public was arrested by placards on street hoardings, offering something, always in large type, *sans serifs*, for nothing ; but advertisers now realise that a public deluded is not likely to patronise the warehouse of the deluder. Bogus cheques promising to pay five thousand good wishes, and illustrations of purses containing sovereigns excited the interest of the public of former times. These crude methods would be entirely useless at this date, and buyers are now satisfied if they can secure a good article at a reasonable price, and the sensible manufacturer or merchant now employs legitimate means only to secure the attention of likely patrons, believing that fair dealing is the only possible basis of a sound business.

An attractive appearance is an essential of a successful advertisement whose first appeal is to the eye, and to make this effective the cover and general arrangement should not only be attractive but, if possible, novel. Now novelty of appearance is a quality which is continually changing, for what is novel and therefore compels interest to-day, may not, indeed will not, claim attention to-morrow ; for to-day's novelties are to-morrow's commonplaces. The successful compositor must know what is the prevalent style in displaying—and carefully avoid it. If he copies what others are doing,

anything he produces will be conventional, and conventionality in type display for advertisement purposes is fatal. No compositor should have any difficulty in displaying a page of type which will be different from the normal. The performance of such a feat is not, however, sufficient. The page should not only be different from, but better than, the normal.

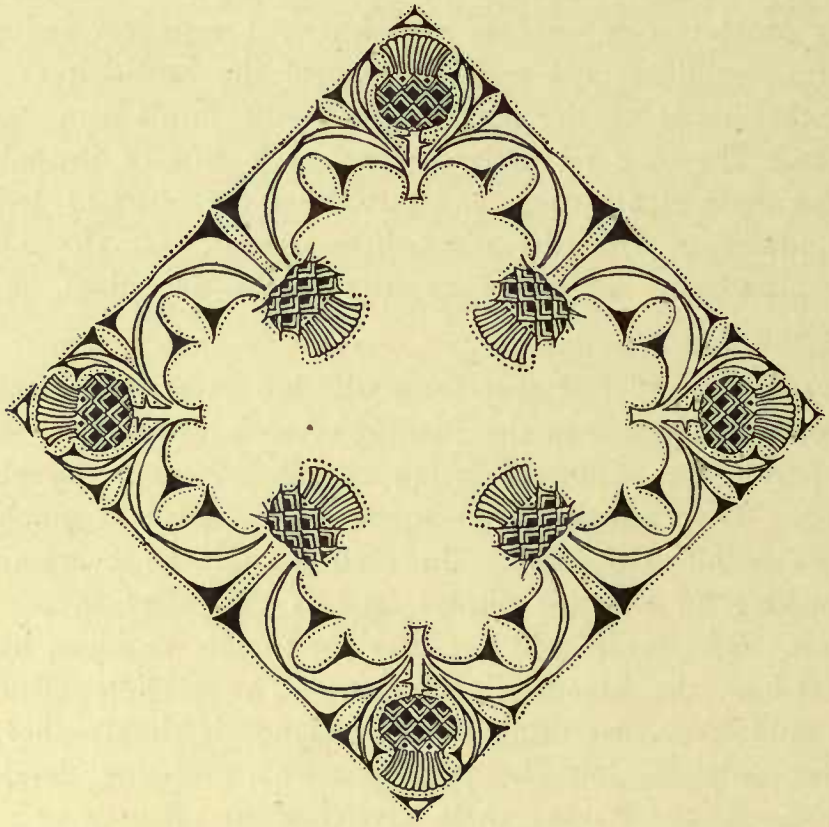
Perhaps it may be worth while to consider the conditions under which the display compositor usually works. Under the most cramped conditions his business is merely to set his type, following the MS. supplied. In such a case he may not alter the order of the sentences or substitute a more suitable for a less satisfactory word. The possibilities of attractive display under such conditions are necessarily limited. Under the freest conditions he will be allowed to rearrange the matter supplied, so that the advertiser's message will, through his expert arrangement of type, make its strongest and most effective appeal to possible buyers. Advertisers who are not thoroughly acquainted with the possibilities of type-display, would do well to give such an expert compositor a fairly free hand in composing their advertisements. In any case, as the final proof must be submitted to them, they have the ultimate decision as to the form their advertisement should take. The two component items in the construction of a display page—the idea, and its expression—should really be the work of a single individual, though the two partners involved—the merchant and the compositor—may exchange ideas, which will result in a distinguished advertisement.

All advertisement writers and compositors realise that their function is to make their message appeal to the reader, but a good many different ideas exist as to what is the most effective form of appeal. Though there is an infinite number of different ways of displaying type upon advertisement pages, these are for the most part expressions of two distinct ideas—two different points of view. The *first* and more common of these two points of view finds expression by means of long and short lines of type, set in many sizes and faces. In the *second* form the compositor limits himself to the use of a few related or contrasted faces of a few sizes. The *idea* in the first method is to supply interest by means of variety of size and form ; the *idea* in the second method is to ensure legibility and harmony by the introduction

of *necessary* contrast only, both of size and form. In the first method each line stands by itself, and claims individual attention on account of its individual character. This is apt to lead to undue competition among the various items on the page. In the setting of a page of twenty-five lines, it is not uncommon to see used a dozen different founts set in twenty sizes of type. No sensitive eye or mind can contemplate such a page without irritation and consequent bias towards its compositor, so that which was designed to attract merely repels. In the second method the advertiser shows a genuine desire to gain the attention of his possible client by directness of statement, legibility of type, and orderly arrangement. To attain this the message is set in good-sized legible type in the form of a panel occupying a central position on the page. This panel is composed of well arranged sentences and paragraphs. Its bulk, form, legibility, and position, compel the attention of the reader, and as the other items of the advertisement—the firm's name, address, and possibly a catch line—are set in large type, each part of the advertisement obtains its due share of attention, and establishes the relations desired by the enterprising advertiser with the sympathetic reader. If the advertisement reaches the class who are users of the goods advertised, business will naturally result.

It is not unusual to find that firms who are expert manufacturers, have the crudest possible ideas as to the framing of an advertisement. Some firms persistently pursue the policy of trying to get too much for their money in advertising. They attempt to compress into a page as much matter as would reasonably fill two pages. In such a case the compositor has no chance of making an effective display, and is compelled to use type of a very small size. The reader will not take the trouble to adjust his spectacles and try to fathom the advertiser's scheme. The possible client must be wooed, not bullied. Advertising in this manner is simply throwing away money. Not only so, but the possible client gradually develops a bias against such firms, and, taking their advertisement methods as an index of their general business capacities, resolutely avoids the firms which adopt such tactics. If the advertiser has something really worthy of the attention of the buyer, he should display his goods judiciously. There is no need for

him to expose the *whole* of the contents of his shop on the counter at *one* time. A printed advertisement should be so well and so attractively arranged that all who run may read. Advertising in extremely small or illegible type, is not only poor advertising, but very poor business indeed. An advertisement of ten pithy lines of good type, carrying an interesting and concise statement, written with a spice of humour, is infinitely more attractive and convincing than one of fifty lines of uninteresting matter set in small type. Such we avoid as naturally as we avoid the conversational "bore."



CHAPTER SIX.

SOME PRINCIPLES OF TYPE-DISPLAY.

THE principles which underlie the arrangement of type upon advertisement pages are the same as those which govern the productions of all designers. For the compositor is a designer. He must decide the size, character, and position of the various founts of type he employs. In the case of ordinary bookwork the size and disposition of the type has already been settled by tradition and practical considerations, but the display compositor has still in most instances a wide choice of founts and sizes to select from, and a variety of arrangements is open to him.

The architect who designs a cathedral or public building, the designer who plans the form and colour of a carpet, and the artist who paints a picture, are all faced with the same problems as the type-display compositor ; though in the former cases the units may involve more knowledge of detail and be more complex, still in the latter case the same great principles must be observed. All are assisted, though also limited, by conditions of construction as well as by art considerations. A thorough knowledge and acknowledgement of these conditions will enable the designer, no matter in what material he works, to make the most of his opportunities ; and the recognition of his limitations should prove a help rather than a hindrance to him. The architect is limited in the size, site, and cost of his building. The designer is restricted to the use of a certain number of colours for his carpet, and is compelled to recognise the conditions of its manufacture. The artist must plan the positions, form, and colour of the features of interest in his picture. In fact none of them are absolutely free in their work. If they recognise their limitations they know that there are things they may do, and things which they cannot do ; and the success or failure of their efforts will be largely

influenced by their acceptance of the conditions under which they work. Such also is the case with the display compositor. His conditions will likely be fixed by the client or master-printer. A certain size of paper and a fixed quantity of copy will require to be compressed or expanded upon the page. His problem in design—and it amounts to nothing less—is to arrange his letters and words—first, that they shall be most effective from the point of view of the client ; and second, so that the result shall combine with this the maximum of good taste founded upon sound principles.

The great principle of *order* is necessary and inevitable in any development, whether national or personal. The compositor who picks up his types and spaces from his case, arranges them in lines, and after printing, returns them to their separate boxes, constantly recognises and acts upon this great principle of order. The human mind, while recognising and acting upon this principle, is also open to the influence of *variety*. We are so constituted that not only permanency but also change appeals to us. So the observance of this principle of variety, along with the other one of order, goes a long way to making up the sum of our human experiences. The repetition of the same actions from day to day co-operates in the formation of order, so that repetition is also one of the great principles, or at least is a part of it. In the examples of type-display illustrated throughout this volume, these principles of order, repetition, and variety are constantly demonstrated—order in the arrangement of parallel lines of type and spaces, repetition in the use again and again of the same letters, and variety in the differences between one letter and another, and between capitals and lower-case letters. In Plate Xa, where all the type is of one fount and one size, each word or group of letters has the same value to the eye as any other, and the importance of the words forming the text must be estimated by the reader's knowledge of the language used. Plate XI. is in striking contrast to Plate X. In Plate XI. the principle of contrast with its auxiliary emphasis is introduced. In this advertisement the brain and hand of the compositor are evident. Either the composer of the letterpress or the compositor of it has seen fit to give special emphasis to certain words or phrases by diverse devices. As the whole advertisement is set in capitals

PLATE XXXIII.—PROGRAMME.

PROGRAMME
of Third Concert
of the Aylesbury
School of Music,
to be held within the
Bechstein Hall,
Friday, 26th Jan. 1912

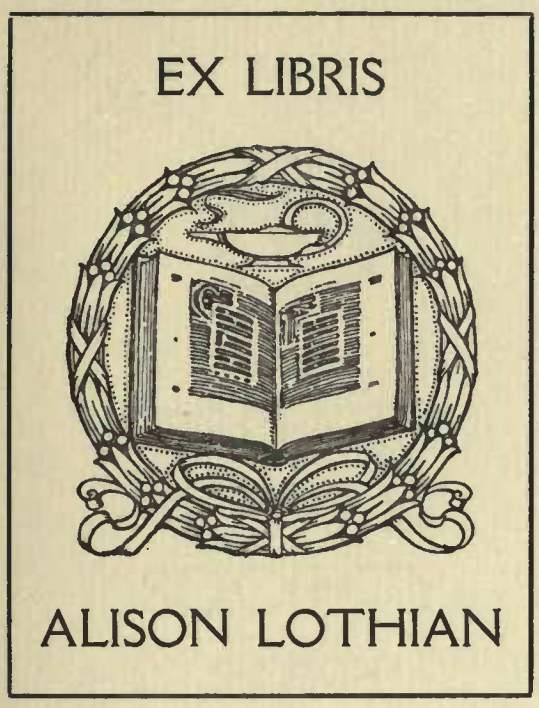
CONCERT
AT 8 P.M.

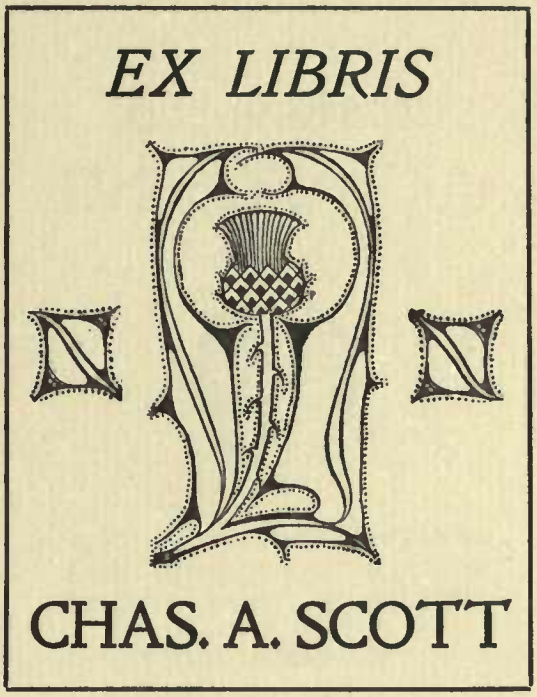
Third Annual Concert of the Aylesbury School of Music, Friday, 26th Jan. 1912.

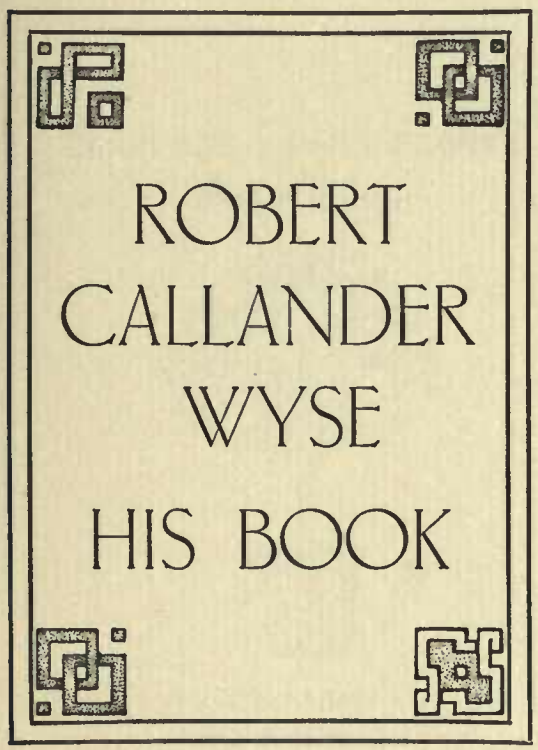
PROGRAMME

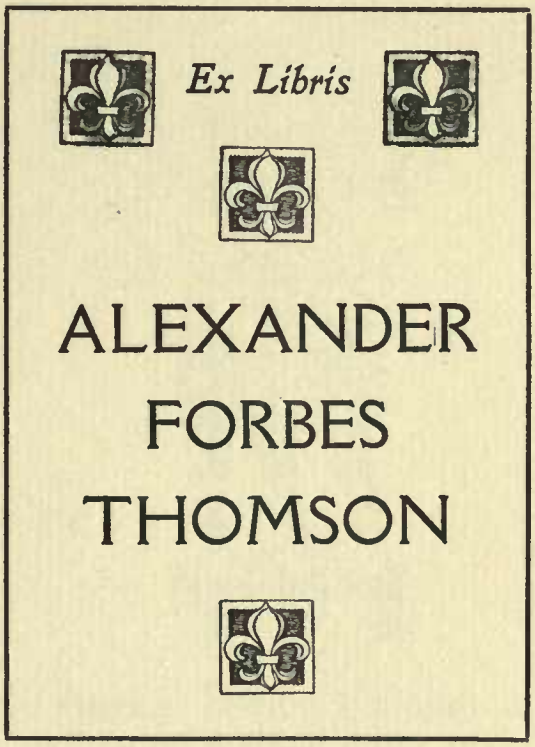
1.	Overture .	'Zauberflöte' . .	*Mozart*
2.	Song . .	'La Madrilena,' .	*Tours*
3.	Reverie .	'Op. 31, No. 1' . .	*Rosellen*
4.	Quartette	'Kaiser Marsch' . .	*Wagner*
5.	March .	'Tannhäuser' . .	*Wagner*
6.	Duet .	'Hear me, Norma' .	*Bellini*
7.	Part Song	'The Wind' . .	*Spohr*
8.	Trio . .	'Evening' . .	*Smart*
9.	Folk-Song	'Feinsliebchen' .	*Brahms*

PLATE XXXIV.—BOOK PLATES.









Paper—"Cream Antique Laid"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.

PLATE XXXV.

PROGRAMME COVERS.

ORPHEUS MUSICAL SOCIETY

SESSION
1911-1912

Birmingham Dramatic Club

MEETS EVERY MONDAY EVENING FROM OCTOBER TILL MARCH AT SEVEN O'CLOCK FOR PRACTICE.

:: :: ANNUAL SUBSCRIPTION :: ::
:: :: Payable at Opening of Session :: ::
:: :: Ladies - 5/- Gentlemen - 7/6 :: ::

Southern Fruit-Growers' Association

PROGRAMME OF ARRANGEMENTS SESSION 1911-12

DERBY HORTICULTURAL ASSOCIATION

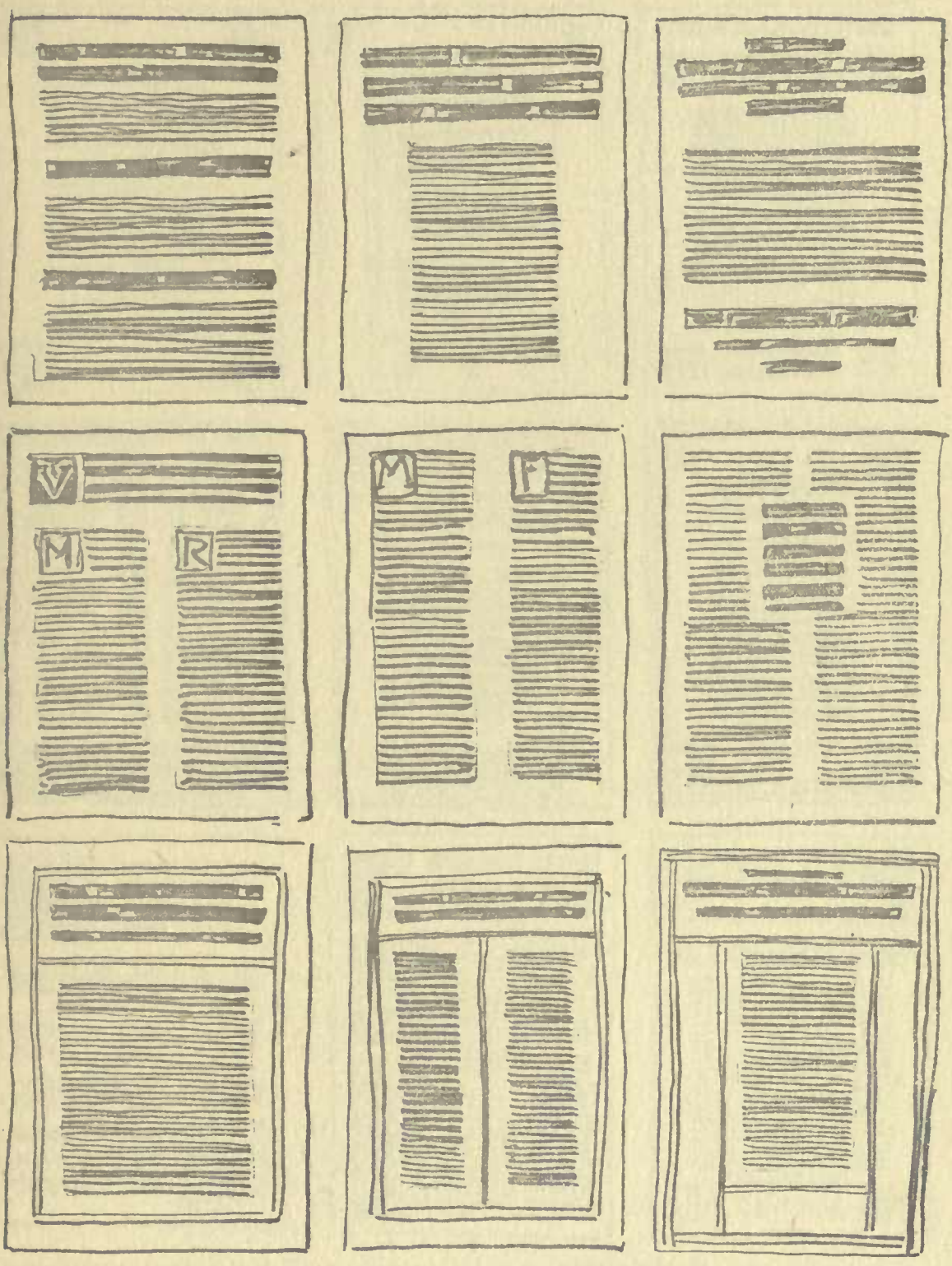
Annual Spring Exhibition

April 8 & 9, 1912.

Paper—"Dark Apricot Art"—THE CULTER PAPER MILLS CO., LTD., Mill No, 9, Peterculter, Aberdeenshire.

PLATE XXXVI.

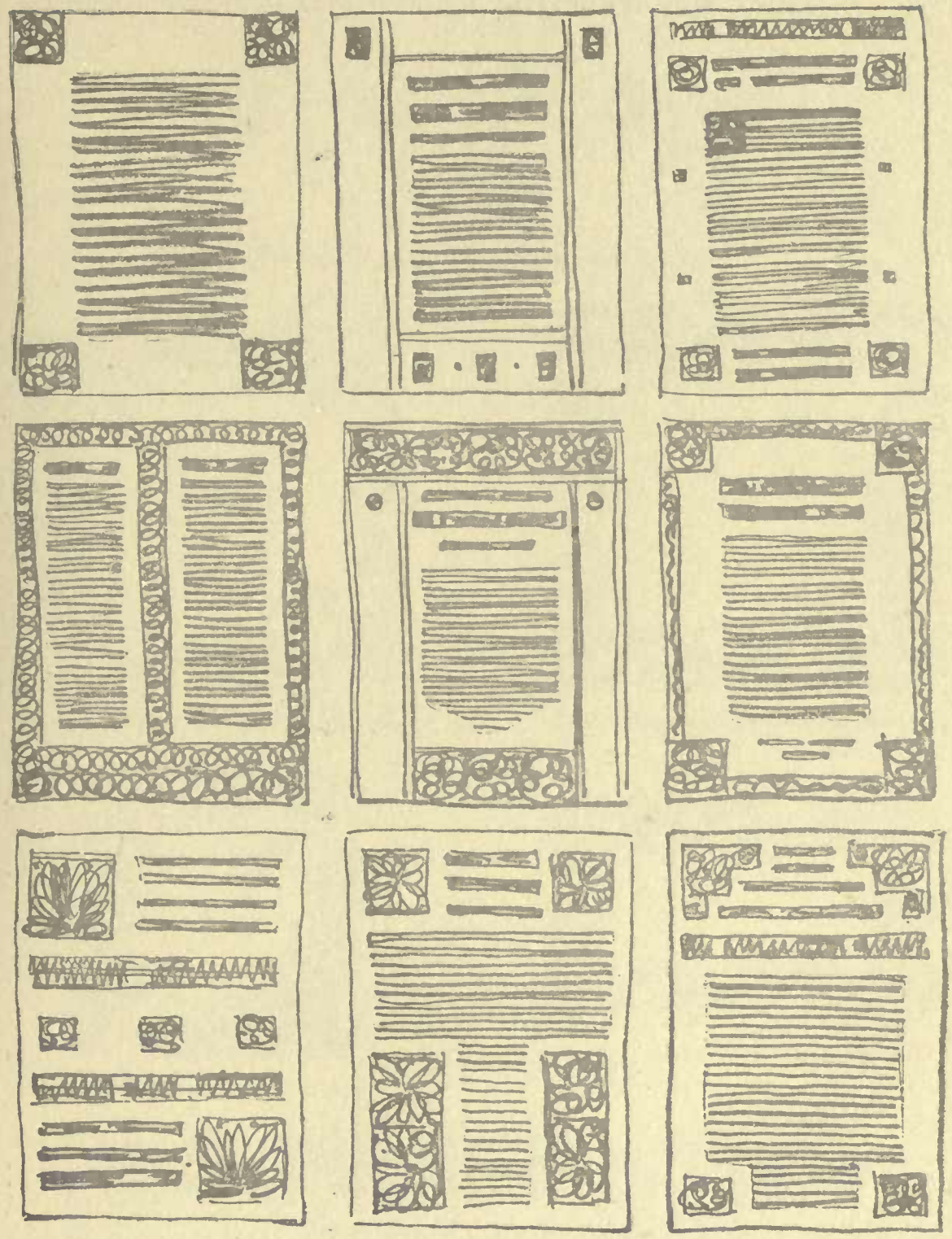
ROUGH COMPOSITION SKETCHES—TYPE ONLY.



Paper—"White Antique Wove"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.

PLATE XXXVII.

ROUGH COMPOSITION SKETCHES—TYPE AND ORNAMENT.

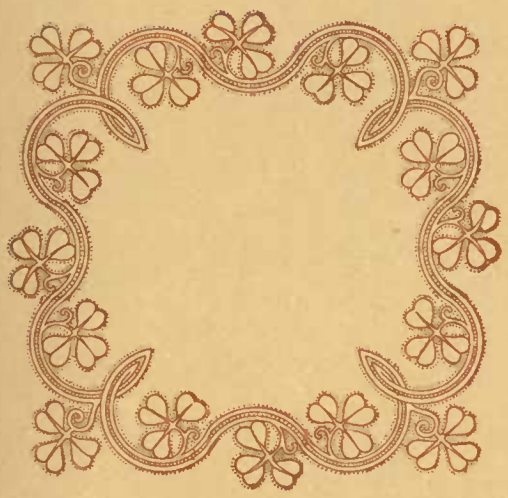


Paper—"White Antique Wove"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.

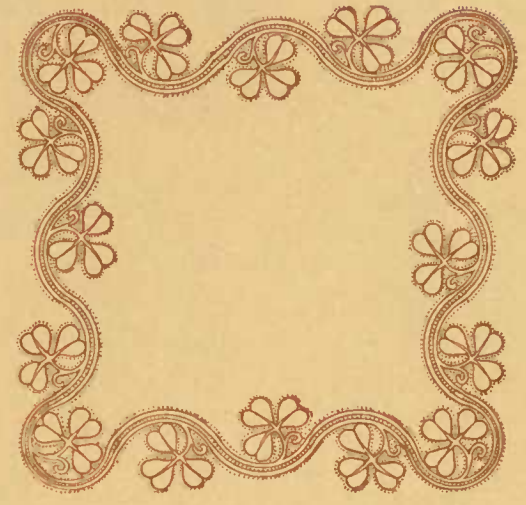
PLATE XXXVIII.

PATTERNS COMPOSED OF SHAMROCK TYPE UNITS.

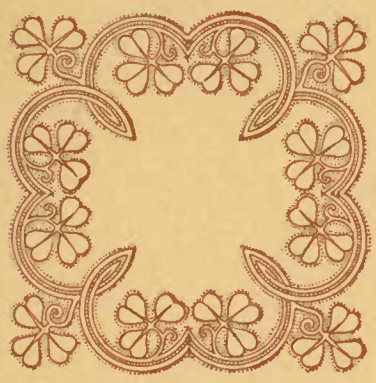
Five units employed in making Shamrock Patterns.



Pattern composed of two units repeated.



Pattern composed of three units repeated.



Pattern composed of one unit repeated.

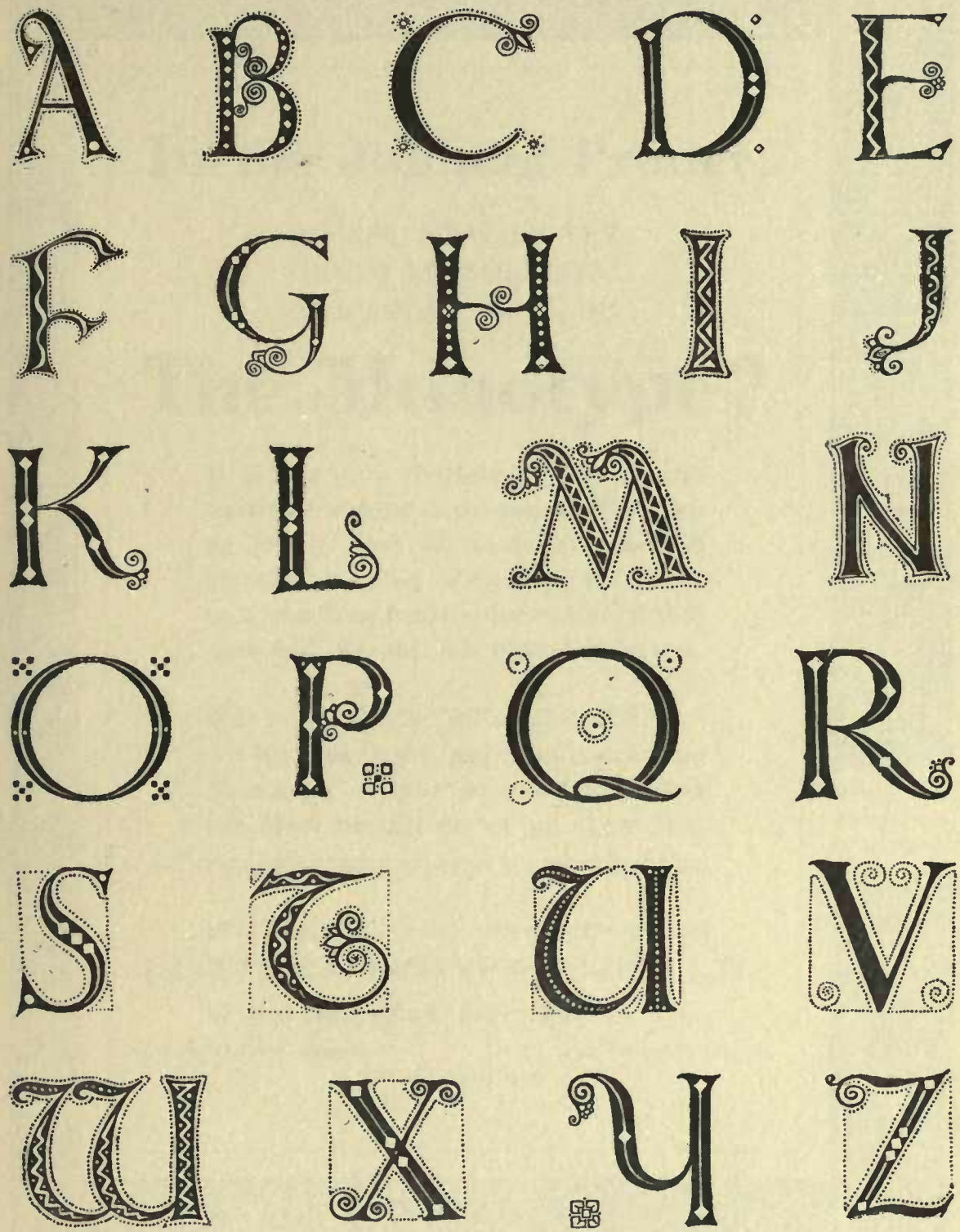
Pattern composed of three units repeated.

Pattern composed of one unit repeated.

Ornaments by H. W. CASLON & Co., Ltd., 82 and 83 Chiswell Street, London, E.C.

Paper—"Dark Apricot Art"—The Culter Paper Mills Co., Ltd., Mill No. 9, Peterculter, Aberdeenshire.

PLATE XXXIX.—INITIALS.



Paper—"Cream Antique Laid"—W. H. & A. RICHARDSON, Mill No. 91, Springwell Paper Mills, Jarrow-on-Tyne, England.

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only of one fount, he has employed two methods to produce emphasis—by contrast of *size* and by *colour*. The larger type being more distinct and more easily seen, appeals to the mind through the eye with special emphasis, and the inscription as read by an intelligent reader, bears a close resemblance to the same statement delivered by the voice of a trained speaker. It is a visible oration. One calls to mind the means taken by the pedagogue of our youthful days, who, to show the value of accent or emphasis, repeated the same sentence with many different inflexions, emphasising each word in turn, and in each case altering its whole significance. In a limited way the compositor may do the same thing. By means of type of a larger size or a different colour the compositor in this example has emphasised certain phrases and words. He thus occupies an important place in the relations between speaker and hearer, between writer and reader. He is the *interpreter*, the *go between* of both. Other means of emphasis are within his power, such as surrounding a selected word or sentence by a line or rule, as in Plate XVII., or isolating a sentence, framing it as it were by a border of unprinted paper. There is a constant temptation here to *over-emphasis*, and the compositor who sets each new line in a different fount of a different size, defeats the end he has in view, by producing crude effects where subtlety would have been more effective. The use of a "catch line" is illustrated in Plate XXVII.; it is however important that after this has caught the eye of the reader, the subsequent statements should be interesting.

IN most crafts the forms of the units to be used are designed by the craftsman himself. In the case of the compositor the forms of the units (letters and spaces) have already been fixed for him. He, however, though not the designer of the units he employs, is still an *arranger* of them. Unless he is required to imitate from a printed copy, he has still to decide—*first*, the sizes of his type, *second*, the character and number of founts to be used, and *third*, whether capitals only or capitals and lower-case letters shall be employed in the whole or parts of the page. He must also determine the positions and general shapes of the masses of type employed, the relative importance of certain words and phrases, and also the margins of paper surrounding the printed matter.

At first sight these may seem very limited choices, and the opportunities for variety may appear restricted, but a reference to examples *a* and *b* on Plate IX. may show that upon the single question of proportion between printed surface and margins, some variety is possible. The arrangement of type shown on Plate IX. is the obvious one. Two similar panels of type, each containing identical matter set in capitals only, are shown. In example *a*, the space occupied by the printed matter is large and the margins are narrow. In example *b*, the panel of type is smaller and the surrounding margins correspondingly larger. Any of the ordinary letterpress pages of the book will serve to illustrate the normal proportions of type and margins. Each of the three examples produces a different effect. As extremely narrow and extremely wide margins are unusual, they are therefore more distinctive and more noticeable than normal margins. A wide divergence of opinion exists among printers as to what is a suitable width for margins, and a recognition of the functions of margins may assist us to come to some definite conclusion as to the width they should be. Margins are the unprinted borders which surround the text. They bear the same relation to type as a frame does to a picture. They are necessary for the purpose of isolating the text, and have also a function in relieving the eye when it is tired. Excessively wide margins are apt to draw one's attention unduly to the frame, to the consequent neglect of the picture, while very narrow margins may give a sense of meanness or parsimony to the page. Two well recognised proportions of margin are acknowledged. These proportions are used on different kinds of pages. *First*, when a page is meant to be looked at *by itself*, as in the case of an advertisement, where no recognition of the opposite page is implied, the panel of type is centred, and the outer and inner margins are equal and usually rather wider than the margin at the top of the page, while the lower margin in all cases is twice as wide as the top margin. *Second*, in the case of ordinary printed matter, two pages facing each other must be taken together as one unit. The relations of upper and lower margins are the same as in the previous case, but the two outer margins at right and left sides of the double page are twice the width of the inside margins, or in other words, each outside margin and the two inside margins taken

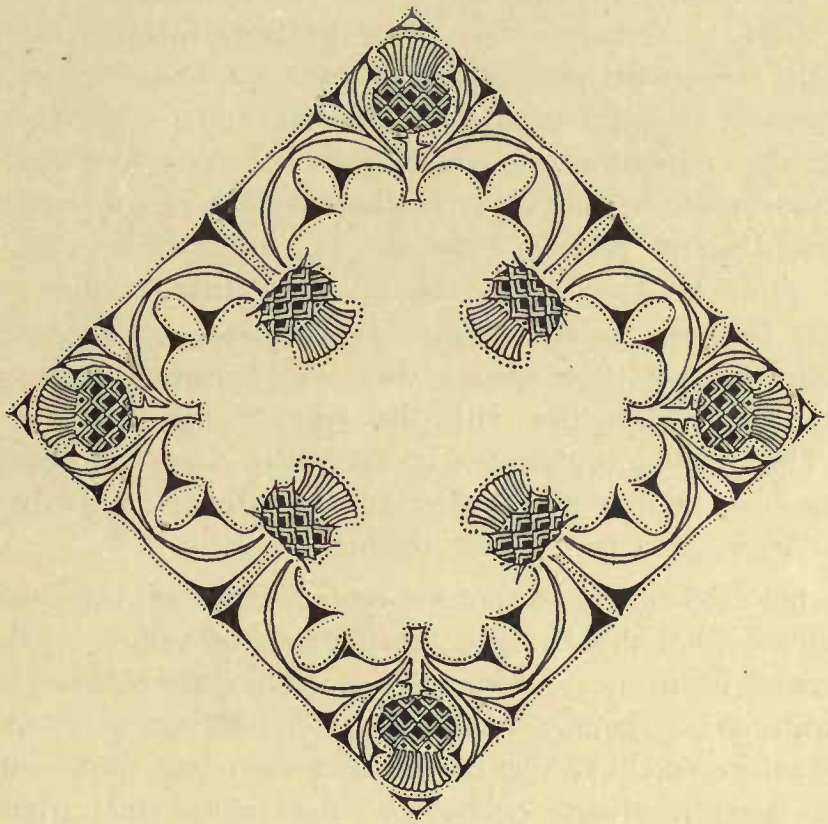
together are equal. Any of the advertisement pages illustrates the former case. The latter case can be seen anywhere throughout this book wherever two pages of the text face each other. Practical considerations make it necessary that the margin at the lower edge of the page should be the widest, as this is really the "handle" of the book—the part it is held by. Were it narrower the thumb and fingers would cover the print, and necessitate the book being held by another edge while the last lines of print were being read.

If the size of the page is fixed for the compositor and a definite amount of printed matter is required to be placed upon it, he must first arrange the relative width of the type margins. After this has been settled, his next consideration is the general disposition of the masses of type. This depends almost entirely upon the nature of the advertisement and the items composing it. If the advertisement is mainly composed of a paragraph consisting of connected sentences (a form of advertisement eminently readable and clear) the subsequent procedure consists mostly in selecting appropriate founts and sizes and setting them, as in Plates XI., XIV., XVI., XXVII., and XXIX. In most cases the details of the advertisement suggest the most suitable arrangement. In Plate XIX. the items were supplied without any attempt at arrangement, this being left in the author's hands. When these were sorted out it was found that they were not suited for a paragraph of sentences. They consisted mostly of the goods to be advertised, with the names and addresses of offices, works, and agents, etc. The tabular arrangement used in Plate XIX. was immediately suggested. The advertisement really consists of three main items. The first two are the name of the firm and the goods being advertised. These two items are combined into a panel of type set in capitals. The third item is made up of a table of six parts set in two columns divided by a rule. Each of the tabulated items consists of the location of office, works, or agency, with its address, 'phone numbers, etc. The margins left at each side of the upper panel suggested the inclusion of six uniform ornaments. The items of Plate XIII. suggested a different arrangement. The information to be conveyed in this page naturally divided itself into three parts—first, the name and address of the firm, second, the goods being advertised, and third, the information contained in the lowest sub-

division. The central panel is divided into two compartments separated by rules and ornaments. The compartment to the left-hand side contains the names of the different kinds of goods manufactured, while the right-hand compartment contains particulars as to the materials used in the manufacture, sizes, etc. This advertisement might have been set in other ways, but the arrangement shown is at least readable, arranged in a sensible manner, and is different from any other advertisement in the book. The arrangement of Plate XII. arises out of the necessities of the case. This page required the display of the trade mark of the firm, which is surrounded by a thistle border composed of two separate units repeated. The spaces at each side of this central panel were suitable for the inclusion of the necessary descriptive matter relating to the goods advertised. These two panels have been set in type of readable size, and the inclusion of four thistle ornaments appropriate as enrichment for an advertisement by a Scotch firm of manufacturers, completes the main features of the page. Practically the entire page is set in five different sizes of one fount. Different effects are produced by the use of capitals only or lower-case letters only; the former is well illustrated in Plate X. (*a*) and (*b*) and in Plate XI., the latter in Plate XXVII. In Plate X. (*a*) the panel is set in one fount of one size, and capitals only are used; in (*b*) the same matter is set in one fount of one size, and lower-case letters only with necessary capitals are employed. The effect in each case is distinctive. The panel (*a*) is dignified and monumental, and such an arrangement is very suitable where the amount of matter is limited. This arrangement was in common use among the ancient Romans for inscriptions on stone; it was the only arrangement possible in those early times, as small letters had not then been evolved. The second arrangement at (*b*) shows more variety of form, since the ascenders and descenders of the lower-case letters introduce a variety not possible in the use of capitals only, the forms of which are all equal in height and approximately similar in shape to each other. The variety of units introduced in (*b*) makes its effect, *as a whole*, less pronounced and distinctive than that of (*a*).

With the introduction of two or more sizes of the same fount, the variety of effects is increased. Plate XI. illustrates the use of four sizes

of one fount of *capitals only*. Plate XII. has five sizes of one fount, and both capitals and lower-case letters are employed. In Plate XIII. four founts and five sizes are used. In Plate XIV. two sizes, both capitals and lower-case of one fount, are used for the principal features. Plate XVI. is composed of five sizes, in capitals and lower-case, of one fount. One fount only, with its italic, is used in Plate XVII., while capitals only and lower-case letters only are well contrasted in Plate XXVII., the latter being employed for the central panel and the former for the surrounding border ; similar contrasts are shown in Plate XXIX. ; the contrasting masses are however different in form and position.



CHAPTER SEVEN.

THE DESIGN & COMBINATION OF TYPE ORNAMENTS.

FOR purposes of type-display the inclusion of a good selection of type ornaments is necessary. These ornaments are the means of introducing variety into the page, but they must be used with knowledge and discrimination. It is quite as easy to destroy a fine effect by their inclusion as to enhance it. One of the commonest pitfalls always yawning for the unwary compositor, is the temptation to place unlike ornamental units together on a page. Even where these ornaments are each good of their kind—which is not always the case—there is a tendency to place together on the page ornaments which suggest different periods, countries, and associations. The ornaments used in one piece of work should be in series, that is, units of different form, such as borders, corners, head and tail pieces, etc., should all be of the same style, so that if combined they will harmonise with each other. Whether they will harmonise with the type or not, is quite a different question. Though the compositor is not called upon to design the type ornaments he uses, he should understand the principles involved in their design, so as to be able to combine them.

The forms used in type ornament or indeed in any kind of ornament, may be based upon, but should not be *imitations* of nature. All ornamental units are derived from one of two sources. They are obtained either from natural forms, such as plants, animals, fish, etc., or from forms not *directly* traceable to nature, such as the elemental geometrical forms—straight and curved lines, triangle, square, circle, etc., and their combinations. In the former case the designer is apt to succumb to the temptation to imitate nature. He forgets that ornament is an adaptation for a special purpose, not

an imitation. Especially is this to be kept in view when designing type ornaments. Without being too pedantic upon the question of historical accuracy, there should be at least a natural if not an historical harmony between the various items upon a printed page. It must not be forgotten that the Ancients themselves were not slow to borrow from all the preceding ages. The letters and words used on the printed page are symbols, means of communication between writer and reader. The type-characters are based upon forms produced by the skilful use of the reed-pen or quill. The enrichment for a page of type should also suggest the pen, not the brush, which the reproduction by half tone blocks suggests. If the type ornament is based on natural forms, it should be rendered with a pen in such a way as to be in harmony with the type characters, which also were originally produced by a similar instrument.

The size, form, and colour of an ornamental unit taken together make up its character. Character in printing, as in life, is all important. A piece of ornament may not be refined, may not be dainty or dignified, but if it has personality or character, the eye of the discerning will never pass it without recognition.

PRINTERS' ornaments, by which is meant the units employed in the enrichment of a page of type, may, apart from art considerations, be either bold or dainty, heavy or light. The effect of the completed page will depend upon the harmonious relations existing between the two elements associated, viz., type and ornament. It is not sufficient to say that bold type will require bold ornament, nor to say that light type will always be in harmony with dainty ornament. Were the principle as simple as this, none could err. Other considerations exist, such as the relative quantities of type and ornament, the positions and sizes of the various units, as well as the community of spirit which should exist between them. It would be manifestly unfortunate that a fine fount of type should be associated with ornament which was trivial in character, or that type which was poor in form should be printed along with fine ornament. In fact poor ornament as well as poor type should never

be used, even though the page is advertising something of a trifling nature. The compositor has not the option of rejecting undignified matter ; he may, however, set the matter in an attractive style. He must make sure that his part of the business is as well done as he can do it. When two coloured inks are employed in the decoration of a page, a new element is introduced, and ornament which would look too heavy if printed along with type in black, may look appropriate if printed in a lighter colour. See Plate XVII. Harmony between type and ornament is determined partly by the considerations already set forth, and partly also by custom and usage. Type is a series of symbols based upon pen writing, by means of which we communicate with one another. Most people in reading are so much occupied with the sense contained in the communication that they are not consciously aware of its form, arrangement, or enrichment. They are, however, unconsciously affected by the interest of the message, to produce which is the function of the writer ; and by the value or proportion of emphasis and its agreeable arrangement and enrichment, to produce which is the function of the compositor. His business is to arrange and display his units of type and ornaments so that the message of the writer shall be felt, and this with the greatest charm possible. The compositor is the first to appreciate the intention of the writer, and in making the message easy to decipher and pleasant to read, he collaborates with the writer, and by judiciously emphasising his meaning, he stands in the relation of guide to the reader. In serving both he glorifies and illuminates his own craft.

HE principles which govern the construction of ornament are based upon the observation of natural form. The forms employed in ornament are similar to those created by nature herself. These forms exhibit *symmetry* or like-sidedness, as in a leaf, *radiation* illustrated by the petals of flowers or by the junction of stems and leaves. The same arrangement of parts is seen in the bodies of animals and of men. Other principles of construction are illustrated when forms are combined, so as to produce new ornamental units ; these are balance, symmetry with and without variety, distribution of interest, etc., etc.

In the art of printing, repetition is an important principle. The compositor uses a limited number of units—in the case of type, the twenty-six letters of the alphabet. These he arranges and combines under conditions. Such also is the case in the use of his ornaments. He may take a simple type ornament, say a leaf, and repeat it in a horizontal line; placing each unit close to the last, he may form a band or border. Different borders may be formed by using the same units and altering their positions (Plate XXIV. D). Other variations are possible in the making of a simple border with one unit. Borders of a more ornate character may be made by using two or more units, as in Plate XXIV., B, C, and D. A border of a much more ornate character is shown in Plate XIV., where three units of more complicated form are employed. The use of borders by printers is obvious. *Diapers* or all over patterns may be formed by repeating one or more units in horizontal lines, as shown in Plate XXIII. A is composed of similar units alternated with equal spaces and placed in horizontal lines; the resultant pattern is named an open diaper, so called because the ornamental units are not placed close together. B is a close diaper in which the units are placed close together, but point in different directions. C is a close diaper composed of two repeated units. D is an open diaper composed of two floral units. It will be noticed that the roses and leaves in this diaper are diagrammatic rather than imitative. The use of diapers by printers is a restricted one; they are, however, useful as panels in the decoration of a cover containing few words. Diapers are also suitable for the printing of end papers, and an inventive compositor can often produce by means of rules and diaper units an end paper which is infinitely more appropriate than those made for the trade. The use of a single ornamental unit repeated several times on a page is shown on Plates XIX. and XXII. A few examples are given on Plate XXV. of panels and tail pieces not meant to be repeated. As a rule, the simpler the unit the more it can bear repetition. Letters which are over-ornamented or are very ornate in themselves may be admissible as initials, but their ornateness tends to make them illegible, and when they occur in large numbers, both mind and eye become quickly tired in trying to decipher them. A series of Initials based upon mediæval capitals is illustrated on Plate XXXIX.

CHAPTER EIGHT.

HARMONY OF COLOUR IN THE USE OF PRINTING PAPERS AND INKS.

REFERENCE has been made in an earlier chapter to the materials which were used for writing upon in early historic times. The invention of the printing press and the consequent large amount of printing which was the natural result called for a printing surface which could be cheaply produced. Immediately prior to 1455 vellum or parchment was used for MS. written books, and also after 1455 for printed books of the best class.

Paper had been used in China as early as 200 B.C., but was first made in Europe during the eleventh century. The early European papers were made of cotton rags, while in the twelfth century linen and cotton rags were combined in their manufacture. Spain seems to have been the first European country to produce it, and Italy, France, and Germany soon followed suit. The printers of our own country imported most of their paper from France and Holland. The first English Paper Mill was established at Stevenage in Hertfordshire, and the first English paper was made there by John Tate in 1495. Rags were so cheap, there was no attempt to introduce any other fibre into its manufacture till the end of the eighteenth century, when paper-makers began to try experiments with other vegetable fibres with the view to their use in the making of paper.

Modern papers are made principally from linen and cotton rags, Esparto grass, and wood pulp. For hand-made printing papers the strongest fibres only are employed—clean linen rags. This quality of paper is used for *Editions-de-luxe*, and for books of an important and permanent nature. It is, of course, more costly than the commoner sorts. It is usually finished

with three surfaces—*Antique Laid*, Plates I. and VIII ; *Wove Unglazed*, Plates II. and VII. ; and *Wove Glazed*, Plates III. and VI. The first is quite suitable for type of not too small a size, but for line illustrations, either of the two latter is preferable. Papers made principally from Esparto grass are much employed for printing of the best description. These papers are finished in a variety of surfaces—*Smooth*, Plates XII., XIII., XXVI., and XXXI. ; *Antique Wove*, Plates XXXVI. and XXXVII. ; and *Antique Laid*, Plates XXXIV. and XXXIX. "Featherweight" papers made almost entirely of high grade Esparto grass are very much used nowadays for the production of novels. These papers are very bulky for their weight, and are finished in different surfaces—*Antique Laid*, Plates X. and XV. ; and *Antique Wove*, Plates IX. and XVI. *Art* Papers are usually employed for the printing of half-tone and three-colour blocks—*White Art Paper*, Plates IV. and V., and Tinted *Art Paper*, Plates XXXV. and XXXVIII. Several *Tinted Printing Papers* are also illustrated—Plates XI., XIV., XXVII., and XXX. ; and *Cover Papers*, Plates XVII. to XXIV. Plates XXVIII. and XXIX. are printed upon a *Smooth Linen Paper*.

The attention of the printer is, however, more naturally directed towards the surface of the paper upon which he prints, and to the qualities of hardness or porosity, smoothness or roughness, they may possess. Both the ingredients and internal structure of the paper affect any printing which may be placed upon it. The particles of fibre of which paper is composed are held together by means of size, and if the proportion of size is a limited one the resultant paper is soft or porous ; the limit of porosity is reached in the case of blotting paper, which has the smallest quantity of size in its composition. A paper which has a great deal of size in it is naturally very hard. The surface of printing papers is produced by the character of the felt upon which the fluid paper pulp is run when being made. Very smooth and glazed surfaces are produced by passing the paper between polished cast iron rollers. Not only does this make the surface of the paper smooth, but it presses the fibres of the paper closer together, and makes it harder and less spongy. When line blocks are printed upon soft surfaced papers the lines are apt to spread, should the impression be at all a heavy one. If the impression is at all light

the resultant print will be poor and weak, both in colour and in distinctness. The weakness of the print is due partly to the absorbency of the paper and partly to the openness of its surface. The sharpest impressions are got from art papers whose surfaces are coated with Kolin, Porcelain Earth, or some such clay. The printing surface when applied to this paper makes an instant and perfect contact, leaving a full deposit of ink, which dries quickly and does not spread.

THERE is no need in a book which concerns itself with the art aspect of type-display to refer to the chemical composition of type, papers, or inks. It is well enough known that the ideal printing ink is one which in the press fulfils its functions with the minimum trouble to the machineman. Inks which vary in quality or consistency, being at one time strong and at another time weak, which take a long time to dry, or are so sticky that the paper fails to leave the type after the impression is made, are unsatisfactory. Some inks are required to appear bright and shining when dry, while others are required to appear dull, and these can be readily supplied by any skilled ink-maker. In any case the machineman likes to use an ink which can be depended upon to produce uniformly good results without undue washing up. He also expects that after careful making ready every print shall be clear and sharp, and that each print shall be perfect and all prints of the same standard. These desirable results depend not only upon the quality of the ink, but upon many other things, such as the making ready, the good working surfaces and qualities of the rollers, the appropriate surface of the paper, and the absolute precision of the printing machine. In the early days of printing the ink was distributed by hand by means of leather pads or dabbers, and it is wonderful what comparatively admirable results were obtained by the use of this primitive inking instrument. Plates I. to VII. are reproductions of early printed pages, the inking of the type of which was carried out by this simple means. There is, however, about modern printing a certainty of result hardly ever attained at the dawn of the art.

PRINTERS are, of course, aware of the infinite variety of shades and colours produced by the use of three inks only in the three colour process. In this process the three inks employed are a bright and pure yellow, a pure crimson red, and a strong blue. The resulting prints from such inks are usually fairly like the originals, and would always be so if the supply of ink were uniform and the colours pure. The yellow, red, and blue inks are never absolutely pure, *i.e.*, neutral in colour. A yellow to be absolutely pure must have no blue or red in its composition. If it is tinged with the smallest quantity of red it becomes orange, and if with blue becomes green. Should it contain even the smallest quantities of both of these colours it becomes correspondingly duller in colour and lower in tone. In the same way a pure neutral red would be free of either yellow or blue. The former would make it slightly orange and the latter slightly violet in colour, while small quantities of both would make it duller in colour and lower in tone. A pure neutral blue would contain no red or yellow, it would not incline either to violet or green. Such pure inks are entirely theoretical, and neutral coloured inks as described have yet to be produced. Though the eye does not perceive the tendencies indicated they are always present, and when the colours are in combination with any of the other colours, these tendencies are revealed. The three colours named and the three inks used are the well-known primaries, and though the primaries named by the scientist are different from these, from the point of view of the artist, ink maker, or printer, the primaries are yellow, red, and blue. The yellow employed in the three colour process is usually tainted with blue, the red usually also tainted with blue, and the blue with yellow. It has been in fact impossible so far to produce absolutely neutral yellow, red, and blue printing inks, and the printer is perforce obliged to use the biassed inks already indicated. Secondary colours or inks are obtained by combining any of the two primaries, producing by means of yellow and blue—green, by yellow and red—orange, and by red and blue—violet. The resultant greens obtained by mixing yellow and blue together will depend upon the proportions of each of the two colours employed. A wide range of greens may be obtained, varying from one which is almost yellow to

one which is almost blue. It is in fact practically impossible to say where green ends and yellow begins, or to say when green ends and blue begins. The same may be said of violet and orange colours. Vermilion, for instance, usually classed as a red, contains as much yellow as crimson. With a little practice practically any colour may be made by mixing the three primaries in varying proportions, especially if white and black also may be employed. Inks may be made lighter by the use of printers' thinning medium, which still keeps them as transparent as at first, or by the addition of white, which renders them opaque and gives the colour a different quality. When yellow, red, and blue are combined in certain proportions, a series of browns and greys are produced. Brown is composed of yellow and red with a small quantity of blue, while greys are composed of yellow and blue with a smaller quantity of red. The tone of ink may be made darker by the addition of black, which will in all cases make it duller as well. Though it is usually advisable to get the exact colour of ink required from the ink maker, it is sometimes an advantage to be able to slightly alter the tone or colour of an ink in the machine-room. In any case a knowledge of the primaries and their combinations is always necessary in preparing trial prints in colour on the hand press. As most coloured inks are more or less transparent, and as in any case the film of ink on paper is always comparatively thin, the ultimate colour of the print is dependent upon the colour of the paper as well as upon that of the ink. Bright inks printed upon neutral coloured paper will therefore always appear duller than if printed upon white paper.

REFERENCE has already been made to principles of arrangement in design :—repetition, order, and variety. Similar principles come into operation in connection with colour, principally those of *proportion* and *contrast*. By proportion is meant the relative quantities of colours occurring in a printed page, as, for instance, the quantity of black type in relation to the white paper. Black, white, and grey may be termed neutral colours. The dictionary meanings of black and white are identical, viz., *colourless*. So long as white paper and black ink are used together, very little can be said

about the relative quantities of these, but when any other colour is used with black upon white paper, the possibilities of harmony or discord are increased. It should be remembered that when a bright colour and black are used in the printing of a page, the former will attract the eye more strongly than the latter, but only up to a certain point. As has already been said in relation to variety of form, a little variety creates interest, but too much variety produces confusion. The use of colour in, say, an initial or a headline may along with black produce a fine effect, whereas alternate lines or alternate words in black and colour is anything but effective, being distracting and tiring to the eye. Type printed in colour does not appear so heavy as the same type printed in black. Not only bright but also dull colours may be introduced along with black; a larger quantity of coloured lettering may be introduced if its colour is dull. The tone value of two colours printed upon the same page should be as nearly as possible equal, at least if the lettering in the two colours is at all nearly equal in quantity (area). Pure ornament should be made less conspicuous than the printing which it enriches. It is a questionable practice to make the ornament more attractive and forcible than the printing which it accompanies, and reminds one of a frame which calls forth more commendation than the picture which lies inside it. The principle of *contrast* is employed and illustrated in the use of black and coloured inks upon white and tinted papers. Jet black ink printed upon pure white paper gives the maximum of contrast, whereas when the tone and colour of paper and ink most nearly coincide, the contrast is a minimum one. A careful comparison of many samples of black ink demonstrates that all are not equally black, and a print from a half-tone block will reveal tendencies to blue, green, or brown, not visible when the ink is used in line or mass.

While it would be a very difficult thing and probably an injudicious one to attempt to frame rules of colour harmony, several general propositions may be advanced, which, if not brilliant, may be considered usually safe. Avoid too many colours upon one page. Musical harmony is not necessarily produced because the orchestra consists of many men with instruments. Harmonious form is not necessarily produced by the inclusion of many varied parts. Colour harmony is not always the result of the inclusion of a great variety

of colours and tints. Two colours, as a rule, are sufficient, one of which should always be predominant either in quantity or interest. There should be no competition between the different colours employed in a page. Competition can be prevented, and principality or emphasis produced by the employment of unequal quantity and unequal interest. In a colour harmony employing two colours, one bright and one dull, the dull colour acts as a foil to the bright, and the bright colour acts as a contrast to the dull. Should three colours be used they may appear in something like the following proportions :—the greatest quantity of surface should be printed with the dullest colour, the middle quantity of surface covered by ink of a moderate tint, and the brightest of the three colours should be employed most sparingly. It may not be out of place to explain some of the more common terms employed in describing colours. These terms are applied in describing first the *hue* of the colour, and second, in describing the *tone* of the colour. The terms *bright* and *dull* refer to the hue, and the terms *light* or *dark* refer to the tone. We can thus have a bright light or a bright dark colour, a dull light or a dull dark colour. The proper use of such terms will enable anyone to describe both the hue and tone of a colour more accurately than by the employment of such loose terms as are in common use. Do not spot the bright colour all over the page, but concentrate it on one or two main features. Jet black ink upon white paper has received the approval of both printer and public from time immemorial ; but the printer who essays the use of coloured inks upon coloured papers is liable to criticism as well as failure. Not that he need mind criticism too much. Many kind friends who would never dream of departing from established precedent are always willing to expend their critical powers upon work which they have neither the initiative to conceive nor the courage to produce.

THE END.

Printed in Great Britain.