







PRINTING AND THE RENAISSANCE





PRINTING AND THE RENAISSANCE: A PAPER READ BEFORE
THE FORTNIGHTLY CLUB OF
ROCHESTER NEW YORK BY
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NEW YORK William Edwin Rudge 1921 Digitized by the Internet Archive in 2013

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N.Y.

RINTING did not make the Renaissance; the Renaissance made printing. Printing did not begin the publication and dissemination of books. There were libraries of vast extent in ancient Babylon, Egypt, Greece, Rome. There were universities centuries before Gutenberg where the few instructed the many in the learning treasured up in books, and where both scholars and professional scribes multiplied copies of books both old and new. At the outset of any examination of the influence of printing on the Renaissance it is necessary to remind ourselves that the intellectual life of the ancient and the mediaeval world was built upon the written word. There is a naive view in which ancient literature is conceived as existing chiefly in the autograph manuscripts and original documents of a few great centers to which all ambitious students must have resort. A very little inquiry into the multiplication of books before printing shows us how erroneous is this view.

We must pass over entirely the history of publishing and book-selling in ancient times, a subject too vast for adequate summary in a preliminary survey of this sort. With the fall of Rome and the wholesale destruction that accompanied the barbarian invasions a new chapter begins in the history of the dissemination of literature.

This chapter opens with the founding of the scriptorium, or monastic copying system, by Cassiodorus and Saint Benedict early in the sixth century. To these two men, Cassiodorus, the ex-chancellor of the Gothic king Theodoric, and Benedict, the founder of the Benedictine order, is due the gratitude of the modern world. It was through their foresight in setting the monks at work copying the scriptures and the secular literature of antiquity that we owe the preservation of most of the books that have survived the ruins of the ancient world. At the monastery of Monte Cassino, founded by Saint Benedict in the year 529, and at that of Viviers, founded by Cassiodorus in 531, the Benedictine rule required of every monk that a fixed portion of each day be spent in the scriptorium. There the more skilled scribes were entrusted with the copying of precious documents rescued from the chaos of the preceding century, while monks not yet sufficiently expert for this high duty were instructed by their superiors.

The example thus nobly set was imitated throughout all the centuries that followed, not only in the Benedictine monasteries of Italy, France, Germany, England, Scotland, Ireland, Iceland, but in religious houses of all orders. It is to the mediaeval Church, her conservatism in the true sense of the word, her industry, her patience, her disinterested guardianship alike of sacred and of pagan letters, that the world owes most of our knowledge of antiquity. Conceive how great would be our loss if to archaeology alone we could turn for the reconstruction of the civilization, the art, the philosophy, the public and private life of Greece and Rome. If the Church had done no more than this for civilization, it would still

have earned some measure of tolerance from its most anti-clerical opponents. It is of course to the Eastern rather than to the Roman Church that we owe the preservation of classical Greek literature, copied during the dark ages in Greek monasteries and introduced into Italy after the fall of Constantinople.

A second stage in the multiplication and publication of manuscript books begins with the founding of the great mediaeval universities of Bologna, Paris, Padua, Oxford, and other centers of higher education. Inasmuch as the study of those days was almost entirely book study, the maintenance of a university library with one or two copies of each book studied was inadequate. There grew up in each university city an organized system of supplying the students with textbooks. The authorized book-dealers of a mediaeval university were called *stationarii*, or stationers, a term apparently derived from the fixed post or station assigned in or near the university buildings to each scribe permitted to supply books to the students and professors. A stationer in England has always meant primarily a book-dealer or publisher, as for example in the term Stationers' Hall, the guild or corporation which until 1842 still exercised in London the functions of a copyright bureau. Incidentally a stationer also dealt in writing materials, whence our ordinary American use of the term. Another name for the university book-dealers was the classical Latin word librarii, which usually in mediaeval Latin meant not what we call a librarian but a vender of books, like the French libraire. These scribes were not allowed at first to sell their manuscripts, but rented them to the students at rates fixed by university statutes.

A folded sheet of eight pages, sixteen columns of sixty-two lines each, was the unit on which the rental charges were based. Such a sheet at the beginning of the thirteenth century rented for about twenty cents a term; and since an ordinary textbook of philosophy or theology or canon law contained many sheets, these charges constituted no inconsiderable part of the cost of instruction. The books must be returned before the student left the university; sales were at first surreptitious and illegal, but became common early in the fourteenth century. Reasonable accuracy among the stationers was secured by a system of fines for errors, half of which went to the university, the other half being divided between the supervisor or head proof-reader and the informant who discovered the error.

The original regulation which forbade the stationers to sell books was intended to prevent students of a profiteering turn of mind from buying books for resale to their fellow-students at a higher price, thus cornering the market and holding up the work of an entire class. In course of time, however, the book-dealers were permitted not only to sell textbooks, at prices still controlled by official action, but also to buy and sell manuscripts of other books, both those produced by local scribes and those imported from other cities and countries.

This broadening of the activities of the university bookstores led naturally to the third and last stage which the publishing business underwent before the invention of printing. This stage was the establishment in Florence, Paris, and other intellectual centers, of bookshops selling manuscripts to the general public rather than to university students. These grew rapidly

during the first half of the fifteenth century, receiving a marked impetus from the new interest in Greek studies. Some years before the fall of Constantinople in 1453 Italian book-sellers were accustomed to send their buyers to the centers of Byzantine learning in the near East in quest of manuscripts to be disposed of at fancy prices to the rich collectors and patrons of literature. There is evidence of similar methods in France and Germany during the earlier decades of the Renaissance.

This preliminary sketch of the book-publishing business before printing is intended to correct a rather common misapprehension. Manuscript books were indeed relatively costly, but they were not scarce. Any scholar who had not been through a university not only had access to public libraries of hundreds of volumes, but might also possess, at prices not beyond the reach of a moderate purse, his own five-foot shelf of the classics. The more elegant manuscripts, written by experts and adorned with rich illuminations and sumptuous bindings, were of course not for the humble student; but working copies, multiplied on a large scale by a roomful of scribes writing simultaneously from dictation, might always be had. Chaucer, writing of the poor clerk of Oxford at the end of the fourteenth century, tells us that

"Him was levere have at his beddes heed Twenty bokes, clad in blak or reed, Of Aristotle and his philosophye, Than robes riche, or fithele, or gay sautrye."

We are not sure that he had the whole twenty books; that was his ambition, his academic dream of wealth;

but we are assured that he spent on books all the money he could borrow from his friends, and that he showed his gratitude by busily praying for the souls of his creditors.

When we consider the enormous number of manuscript books that must have existed in Europe in the middle ages, we may well wonder why they have become relatively rare in modern times. Several explanations account for this. In the first place, the practice of erasing old manuscripts and using the same vellum again for other works was extremely common. Secondly, vast numbers of manuscripts in the monasteries and other libraries of Europe were wantonly or accidentally destroyed by fire, especially in times of war and religious fanaticism. In the third place, the early binders, down through the sixteenth century and even later, used sheets of vellum from old manuscripts for the linings and the covers of printed books. Finally, after the invention of printing, as soon as a given work had been adequately and handsomely printed in a standard edition, all but the finest manuscripts of that book would naturally be looked upon as of little value, and would be subject to loss and decay if not to deliberate destruction. Owing to these and perhaps other causes it is almost entirely the religious manuscripts that have survived, except those preserved in royal libraries and museums from the finer collections of the middle ages.

The invention of printing was not the work of any one man. Not only were printed pages of text with accompanying pictures produced from woodcut blocks in Holland a quarter of a century before Gutenberg began his work at Mainz, but it is pretty well established that movable types were employed by Laurence Koster, of

Haarlem, as early as 1430. But Koster, who died about 1440, did not carry his invention beyond the experimental stages, and produced no really fine printing. Moreover, his work had no immediate successor in Holland. Whether it be true, as sometimes alleged, that Gutenberg first learned of the new art from one of Koster's workmen, we have no means of knowing. At any rate, Gutenberg's contemporaries as well as his successors gave to him the credit of the invention. That he was not the first to conceive the idea of multiplying impressions of type-forms by the use of a screw press is evident; but he was the first to develop the invention to a point where it became capable of indefinite extension. He seems to have worked in secret for some years on the problems involved in type-founding and printing before the year 1450, when he set up his shop in Mainz.

The capital for the new business was furnished by a wealthy goldsmith named Johann Fust. Between 1450 and 1455 Gutenberg printed an edition of the Latin Bible, sometimes known as the Mazarin Bible, which is ordinarily regarded as the first printed book. It was a magnificently printed volume, exhibiting at the very foundation of the art a skill in presswork scarcely surpassed by any of Gutenberg's immediate successors. He was a great printer, but not a financially successful one. Fust sued his partner in 1455 for repayment of the loans advanced, and upon Gutenberg's failure to meet these obligations Fust foreclosed the mortgage and took over the printing plant. Although Gutenberg started another publishing house at Mainz, and continued it until his death in 1468, the main development of printing after 1455 was in the original plant as carried

on by Fust and his son-in-law, Peter Schoeffer. They printed in 1457 an edition of the Psalms in which for the first time two-color printing was employed, the large initial letters being printed in red and black. This innovation, designed to imitate the rubricated initials of the manuscripts, involved great technical difficulties in the presswork, and was not generally adopted. Most of the early printed books, even down to the end of the fifteenth century, left blanks for the large capitals at the beginnings of the chapters, to be filled in by hand by professional illuminators.

From the establishments of Gutenberg and of Fust and Schoeffer in Mainz knowledge of the new art spread rapidly into many German cities. In 1462 Mainz was captured and sacked by Adolph of Nassau in one of the local wars of the period, and printers from the Mainz shops made their way to other cities throughout the empire. Before 1470 there were printing establishments in almost every German city, and hundreds of works, mostly theological, had been issued from their presses.

In all these early German books, printed of course in Latin, the type used was the black-letter. Gutenberg, in designing his first font, evidently tried to imitate as closely as possible the angular gothic alphabet employed by the scribes in the best manuscripts. Not only were the letters identical in form with the engrossing hand of the monks, but the innumerable abbreviated forms used in the Latin manuscripts were retained. Thus a stroke over a vowel indicated an omitted m or n, a p with a stroke across it indicated the Latin prefix per, a circle above the line stood for the termination us, an r with a cross meant -rum, and so forth. These abbreviations,

which make printed books of the earliest period rather hard reading today, were retained not only to save space but to give the printed page as nearly as possible the appearance of a fine manuscript. It was not at first the ambition of the printers and type-founders to make their books more legible or less taxing on the eyes than manuscript; their readers were accustomed to manuscript and felt no need of such improvements. The mechanical advance in the art of writing brought about by printing was at first regarded as consisting in the greater rapidity and lower cost at which printed books could be produced.

But the new invention was at first looked upon by some famous scholars and patrons of learning as a detriment rather than a help. The great Trithemius, abbot of Sponheim, wrote as late as 1494 in the following terms:

"A work written on parchment could be preserved for a thousand years, while it is probable that no volume printed on paper will last for more than two centuries. Many important works have not been printed, and the copies of these must be prepared by scribes. The scribe who ceases his work because of the invention of the printing-press can be no true lover of books, in that, regarding only the present, he gives no due thought to the intellectual cultivation of his successors. The printer has no care for the beauty and the artistic form of books, while with the scribe this is a labor of love."

Contrasted with this low estimate of the importance of the new art by some scholars, we note the promptness with which the great churchmen of Italy and of France took measures to import German printers and set up presses of their own. In 1464 the abbot of Subiaco, a monastery near Rome, brought to Italy two German printers, Conrad Schweinheim and Arnold Pannartz, and set them at work printing liturgical books for the

use of the monks. Soon afterward, under ecclesiastical patronage, they began to issue, first at Subiaco and then at Rome, a series of Latin classics. During five years this first printing establishment in Italy published the complete works of Cicero, Apuleius, Caesar, Virgil, Livy, Strabo, Lucan, Pliny, Suetonius, Quintilian, Ovid, as well as of such fathers of the Latin Church as Augustine, Jerome and Cyprian, and a complete Latin Bible. This printing establishment came to an end in 1472 for lack of adequate capital, but was soon followed by others both in Rome and especially in Venice.

Early Venetian printing forms one of the most distinguished chapters in the whole history of the subject. The most famous of the first generation was Nicolas Jenson, a Frenchman who had learned the art in Germany. Between 1470 and his death in 1480 he printed many fine books, and in most of them he employed what is now called roman type. He was not absolutely the first to use the roman alphabet, but his roman fonts were designed and cast with such artistic taste, such a fine sense of proportion and symmetry of form, that the Jenson roman became the model of later printers for many years after his death. Roman type, unlike the black-letter, had two distinct origins. The capitals were derived from the letters used by the ancient Roman architects for inscriptions on public buildings. The small letters were adapted from the rounded vertical style of writing used in many Italian texts, altogether different in form from the angular gothic alphabet used in ecclesiastical manuscripts. Jenson's roman letters were clear, sharp and easy to read, and constituted the greatest single addition to the art of printing since its beginning.

Germany clung obstinately to the black-letter in its Latin books, as it has adhered down to very recent times to a similar heavy type for the printing of German text; but the rest of Europe within a few years came over to the clearer and more beautiful roman.

There were many early printers at Venice between Jenson and his greater successor Aldus Manutius, who began business in 1494, but we shall pass over them all in order to devote more careful attention to the noble history of the Aldine press. I propose in the remainder of this paper to select five great printers of the Renaissance, and to examine their work both as a whole and as illustrated in typical examples. These five are:

ALDUS MANUTIUS, of Venice.

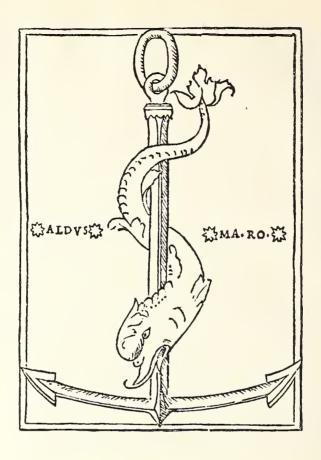
ROBERT ESTIENNE, of Paris, commonly known by the name of *Stephanus*.

JOHANN FROBEN, of Basel.

ANTON KOBERGER, of Nuremberg.

WILLIAM CAXTON, of London.

Each stands for a different aspect of the art of printing, both in the mechanical features of book-making and also in the selection of works to be published and the editorial methods employed in making them ready for the press. Taken together, the books issued from their presses at the end of the fifteenth and the beginning of the sixteenth century form a sort of composite picture of the Renaissance.



First of all, in our consideration and in order of greatness, stands the name of Aldus Manutius. The books of the Aldine press, all with the well-known sign of the anchor and dolphin, are familiar to most students of the classics. Aldus was born in 1450, the very year of Gutenberg's invention. For the first forty years of his life he was a scholar, devoting himself to the Latin classics and to the mastery of the newly revived Greek language and literature. His intimate association with Pico della Mirandola

and other Italian scholars, as well as with many of the learned Greeks who then frequented Italian courts and cities, led him to conceive the great plan upon which his later career was based. This was nothing less than to issue practically the whole body of classic literature, Greek as well as Latin, in editions distinguished from all that had preceded in two important respects. First, they were to be not reprints of received uncritical texts but new revisions made by competent scholars based upon a comparison of all the best available manuscripts. Secondly, they were to be printed not in ponderous and costly folios but in small octavos of convenient size, small but clear type, and low price. This was not primarily a commercial venture like the cheap texts of the classics issued in the nineteenth century by Teubner and other German publishers, but resembled rather in its broad humanistic spiritsuch a recent enterprise as the Loeb Classical Library. The purpose in each case was to revive and encourage the reading of the classics not alone by schoolboys but by men of all ages and all professions. But there is this important difference, that Mr. Loeb is a retired millionaire who employs scholars to do all the work and merely foots the bill, while Aldus was a poor man dependent upon such capital as he could borrow from his patrons, and had at the same time to perform for himself a large part of the editorial labors on his books. Mr. Loeb commands the latest and most complete resources of the modern art of printing; Aldus helped to make that art. Mr. Loeb's editors may employ when they choose the style of type known as italic; Aldus invented it. Mr. Loeb's publishers have at their command all the advertising and selling machinery of a great modern business concern, and yet they do not, and probably can not, make the classics pay for themselves, but must meet the deficits out of an endowment. Aldus had to organize his own selling system, his advertising had to be largely by private correspondence with scholars and book-sellers throughout Europe laboriously composed with his own hand; yet it was imperative that the business become as soon as possible self-supporting, or at least that losses in one quarter should be recouped by profits in another.

It was in his edition of Virgil, 1501, that Aldus first employed the new cursive or sloping letter which later came to be known in English printing as italic type. According to tradition he copied it closely from the handwriting of the Italian poet Petrarch. The type was very compact, covering many more words on a page than the roman of *that day, and was used as a body type, not as in our day for isolated words and phrases set apart for emphasis or other distinction from the rest of the text. Aldus also, though not the first to cast Greek type, gave his Greek fonts an elegance which was soon imitated, like the italic, by other printers. By the introduction of small types which were at the same time legible, and by adopting for his classical texts a small format suitable for pocket-size books, Aldus invented the modern small book. No longer was it necessary for a scholar to rest a heavy folio on a table in order to read; he might carry with him on a journey half a dozen of these beautiful little books in no more space than a single volume of the older printers. Furthermore, his prices were low. The pocket editions or small octavos sold for about two lire, or forty cents in the money of that day, the purchasing power of which in modern money is estimated at not above two dollars.

This popularizing of literature and of classical learning did not meet with universal favor amongst his countrymen. We read of one Italian who warned Aldus that if he kept on spreading Italian scholarship beyond the Alps at nominal prices the outer barbarians would no longer come to Italy to study Greek, but would stay at home and read their Aldine editions without adding a penny to the income of Italian cities. Such a fear was not unfounded, for the poorer scholars of Germany and the Netherlands did actually find that they could stay at home and get for a few francs the ripest results of Italian and Greek scholarship. This gave Aldus no concern; if he could render international services to learning, if he could help to set up among the humbler scholars of other lands such a fine rivalry of competitive coöperation as already existed among such leaders as Erasmus and Sir Thomas More, he should be well content to live laborious days and to die poor. Both these he did; but he gathered around him such a company of friends and collaborators as few men have enjoyed; he must have breathed with a rare exhilaration, born of honest and richly productive toil, the very air of Athens in her glory; and he must have realized sometimes amid the dust and heat of the printing shop that it was given to him at much cost of life and grinding toil to stand upon the threshold of the golden age alike of typography and of the revival of learning. In 1514, the year before his death, Aldus wrote to a friend a letter of which I borrow a translation from George Haven Putnam's Books and Their Makers during the Middle Ages. This is the picture Aldus drew of his daily routine:

"I am hampered in my work by a thousand interruptions. Nearly every hour comes a letter from some scholar, and if I undertook to reply to them all, I should be obliged to devote day and night to scribbling. Then through the day come calls from all kinds of visitors. Some desire merely to give a word of greeting, others want to know what there is new, while the greater number come to my office because they happen to have nothing else to do. 'Let us look in upon Aldus,' they say to each other. Then they loaf in and sit and chatter to no purpose. Even these people with no business are not so bad as those who have a poem to offer or something in prose (usually very prosy indeed) which they wish to see printed with the name of Aldus. These interruptions are now becoming too serious for me, and I must take steps to lessen them. Many letters I simply leave unanswered, while to others I send very brief replies; and as I do this not from pride or from discourtesy, but simply in order to be able to go on with my task of printing good books, it must not be taken hardly. As a warning to the heedless visitors who use up my office hours to no purpose, I have now put up a big notice on the door of my office to the following effect: Whoever thou art, thou art earnestly requested by Aldus to state thy business briefly and to take thy departure promptly. In this way thou mayest be of service even as was Hercules to the weary Atlas. For this is a place of work for all who enter."

What a picture that letter gives us of the half humorous, half pathetic spirit in which the great publisher endured the daily grind. Twenty years of it wore him out, but his dolphin-and-anchor trade-mark still after four centuries preaches patience and hope to all who undertake great burdens for the enlightenment of mankind.

The Aldine press did not confine its efforts to the ancient classics, but printed editions of Dante and Petrarch and other Italian poets, and produced the first editions of some of the most important works of Erasmus. But all of its publications belonged in general to the movement known as humanism, the field of ancient

and contemporary poetry, drama, philosophy, history, and art. Aldus left to others, especially to the great ecclesiastical printers of Venice and of Rome, the printing of the scriptures, the works of the church fathers, and the innumerable volumes of theological controversy with which the age abounded. In France, on the other hand, the great publishing house of the Estiennes, or Stephani, to whom we next direct our attention, divided its efforts between the secular and sacred literature. Inasmuch as the history of the Stephanus establishment is typical of the influence of printing upon the Renaissance, and of the Renaissance upon printing, which is the subject of this paper, we may well examine some aspects of its career.

Printing had been introduced into France in 1469 by the ecclesiastics of the Sorbonne. Like that abbot of Subiaco who set up the first press in Italy five years before, these professors of scholastic philosophy and theology at Paris did not realize that the new art had in it the possibilities of anti-clerical and heretical use. For the first generation the French printers enjoyed a considerable freedom from censorship and burdensome restrictions. They published, like the Venetians, both the Greek and Latin classics and the works of contemporary writers. Both Louis XII. and Francis I. gave their patronage and encouragement to various eminent scholarprinters who flourished between the establishment of the first publishing-houses in Paris and the beginning of the sixteenth century. I pass over all these to select as the typical French printers of the Renaissance the family founded by Henri Estienne the elder. His first book, a Latin translation of Aristotle's Ethica, appeared

in 1504. From that date for nearly a hundred years the house of Stephanus and his descendants led the publishing business in France. Both in the artistic advancement of the art of printing and in the intellectual advancement of French thought by their selection of the works to be issued they earned a right to the enduring gratitude of mankind.

Henri Estienne, the founder of the house, who died in 1520, had published during these sixteen years at least one hundred separate works. Although they were mostly Latin, many of them revealed Estienne's knowledge of and devotion to the new Greek studies, and this tendency on his part was at once suspected as heretical by the orthodox doctors of the Sorbonne. The favor of King Francis was not at all times sufficient to protect him from persecution, and an increasing severity of censorship arose, the full force of which began to be evident in the time of his son Robert.

After Henri's death his business was for a time carried on by his widow's second husband, Simon Colines, a scholar and humanist of brilliant attainments. Both while at the head of the house of Stephanus and later when he had withdrawn from that in favor of Robert Estienne his stepson and set up a separate publishing business, Colines added much to the prestige of French printing. He caused Greek fonts to be cast, not inferior to those of the Venetian printers, and began to publish the Greek classics in beautiful editions. It was Colines, rather than either the elder or the younger Estienne, who elevated the artistic side of French printing by engaging the services of such famous typographical experts as Geofroy Tory, and adding to his books illustrations of

the highest excellence, as well as decorative initials and borders. Indeed it may be said that after the death of Aldus supremacy in the fine art of book-making gradually passed from Venice to Paris.



The greatest of the Estiennes was Robert, son of Henri Estienne and stepson of Colines, who was in control of the house from 1524 to his death in 1559. The very first book he published was an edition of the Latin Testament. Although following in the main the Vulgate or

official Bible of the Roman Church, he introduced certain corrections based on his knowledge of the Greek text. This marked the beginning of a long controversy between Estienne and the orthodox divines of the Sorbonne, which lasted almost throughout his life. In following years he published many editions of the Latin scriptures, each time with additional corrections, and eventually with his own notes and comments, in some cases attacking the received doctrines of the Church. A Hebrew Old Testament, in 1546, was followed in 1550 by the Greek New Testament. The next year he published a new edition of the Testament in which for the first time it was divided into verses, a precedent followed in Bible printing ever since. It was not merely the fact of his printing the scriptures at all that angered the heresyhunters, but much more Estienne's notes and comments, in which, like Luther in Germany and Tyndale in England, he sided with the views of the Reformers.

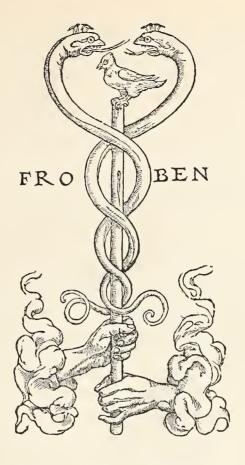
What distinguishes Robert Estienne from the ordinary Protestant scholars and publishers of his time is the fact that he was not only a Reformer but a humanist of broad and tolerant culture. In all the illustrious group of that age there is scarcely another like him in this union of religious zeal and of scholarly culture. Luther and Calvin and Tyndale had the one; Erasmus is the most eminent example of the other, with such great publishers as Aldus and Froben his worthy supporters. But Robert Estienne, alongside of his controversial works and Biblical texts, labored at such great enterprises as his monumental edition of Terence, in which he corrected by the soundest methods of textual criticism no less than six thousand errors in the received text, and especially his

magnificent lexicons of the Latin and Greek languages, which set the standard for all other lexicographers for generations to come.

The middle of the sixteenth century in France is thus marked by a curious blend of those two distinct movements in human history which we call the Renaissance and the Reformation, and the blend is nowhere more picturesque than in the life of Robert Estienne. At one moment we find him attacking the abuses of the church, at another we find him consulting with Claude Garamond upon the design of a new Greek type, or reading the final proofs of an edition of Horace or Catullus or Juvenal, or discussing with some wealthy and noble book-collector like the famous Grolier the latest styles in elegant bindings and gold-stamped decoration. For beauty and for truth he had an equal passion. All that romance of the imagination which touches with a golden glamour the recovered treasures of pagan antiquity he loved as intensely as if it were not alien and hostile, as the many thought, to that glow of spiritual piety, that zeal of martyrdom, that white, consuming splendor which for the mystical imagination surrounds the holy cross. Humanism at its best is ordinarily thought to be embodied in the many-sided figure of Erasmus, with his sanity, his balance, his power to see both sides, that of Luther and of the Church, his delicate satire, his saving humor, his avoidance of the zealot's extremes. Perhaps a not less striking figure is that of this much less known French printer, striving in the midst of petty cares and unlovely sectarian strife to maintain the stoical serenity of a Marcus Aurelius side by side with the spiritual exaltation of a Saint Paul. There are two types of great men

equally worthy of admiration: those of unmixed and lifelong devotion to a single aim springing from a single source, such as Aldus Manutius, and those in whom that balance of diverse and almost contradictory elements of character which commonly leads to weakness makes instead for strength and for richness, for duty and delight. Such was Robert Estienne.





The third printer whom I have selected as typical of the Renaissance is Johann Froben, of Basel. His chief distinction is that he was the closest friend and associate of Erasmus, the principal publisher of Erasmus's works, and the representative in the book trade of the Erasmian attitude toward the Reformation. Although he did print the Greek Testament, years before Estienne published his edition in Paris, he accompanied it with no distinctively Protestant comments. Although at one time

he issued some of the earlier works of Luther, he desisted when it became evident that Erasmus opposed any open schism in the Church. It was Froben who gave to the world those three famous works of Erasmus, the Encomium Moriae or Praise of Folly, the Adagia or Proverbs, and the Colloquia or Conversations, which did quite as much as the writings of Luther to arouse independent thinking within the Church, and to bring to an end the last vestiges of the middle ages in church and state. And in this relation of Froben to Erasmus there was not the mere commercial attitude of a shrewd publisher toward a successful author whose works became highly lucrative, but the support by one enlightened scholar who happened to be in a profitable business of another who happened to be out of it. The earlier life of Erasmus exhibits a rather depressing illustration of the humiliations to which professional scholars were exposed in trying to get a living from the pensions and benefactions of the idle rich. Literary patronage, as it existed from the days of Horace and Maecenas down to the death-blow which Dr. Johnson gave it in his famous letter to Lord Chesterfield, has never helped the independence or the self-respect of scholars and poets. It was Froben's peculiar good fortune to be able to employ, on a business basis with a regular salary, the greatest scholar of the age as one of his editors and literary advisers, and at the same time enable him to preserve his independence of thought and of action. Aldus and the French publishers had gathered about them professional scholars and experts for the execution of specific tasks at the market price, supplemented often by generous private hospitality. That was good; but far better was Froben's relation

with his friend, his intellectual master, and his profitable client Erasmus. In an age when no copyright laws existed for the author's benefit the works of Erasmus were shamelessly pirated in editions, published in Germany and France, from which the author received not a penny. Yet Froben went right on paying to Erasmus not only the fixed annual salary as a member of his consulting staff but also a generous share of the profits upon his books. In a greedy, unscrupulous, and rapacious age this wise and just, not to say generous, policy stands out as prophetic of a better time.

As a printer Froben was distinguished by the singular beauty of his roman type, the perfection of his presswork, and the artistic decoration of his books. In this last respect he was much indebted to the genius of Hans Holbein, whom he discovered as a young wood-engraver seeking work as Basel. With that keen eye for unrecognized genius which marked his career he employed Holbein to design borders and initials for his books. Later, with an equally sagacious and generous spirit, perceiving that the young artist was too great a man to spend his days in a printing office, he procured for him through Sir Thomas More an introduction to the court of Henry VIII, where he won fame and fortune as a portrait painter. I narrate the incident because it illustrates a very attractive and amiable aspect of some of these men of the Renaissance, an uncalculating and generous desire to help gifted men to find their true place in the world where they might do their largest work. This, in an age when competition and jealous rivalry in public and in private life was as common as it is now, may give pause to the cynic and joy to the lover of human kindness.

ANTON KOBERGER

(No printer's mark known)

We are in a different world when we turn to the fourth of our five representative printers, Anton Koberger, of Nuremberg. During the forty years of his career as a publisher, between 1473 and 1513, he issued 236 separate works, most of them in several volumes, and of the whole lot none show any taint of reforming zeal. Koberger was a loyal Catholic, and his published books were largely theological and all strictly orthodox in nature. He is distinguished in two respects from the other German printers of his time, the time between the death of Gutenberg and the rise of Martin Luther. In the first place his work showed great typographical excellence, with many fonts of handsome Gothic type and a lavish use of woodcut illustrations. In the second place, his publishing business was far better organized, far more extensive in its selling and distributing machinery, than that of any other printer in Europe. We learn that he had agents not only in every German city, but in the very headquarters of his greatest competitors at Paris, Venice, and Rome, and in such more distant places as Vienna, Buda-Pesth, and Warsaw. The twenty-four presses in his own Nuremberg establishment were not sufficient for his enormous business, and he let out printing jobs on contract or commission to printers at Strasburg, Basel, and elsewhere. The true German spirit of discipline appears in a contemporary account of his printing plant at Nuremberg. He had more than a hundred workmen there, including not only compositors, pressmen, and proof-readers, but binders, engravers, and illuminators. All these were fed by their employer in a common dining-hall apart from the works, and we are told that they marched between the two buildings three times a day with military precision.

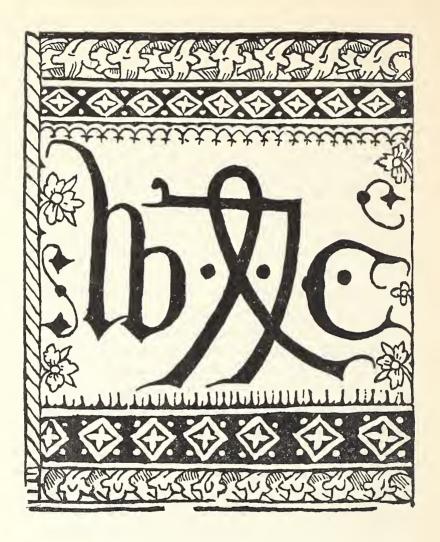
Koberger employed for a time the services of Albrecht Dürer, the famous engraver, not only for the illustration of books but also for expert oversight of the typographical form. Typography in its golden age was rightly regarded not as a mere mechanical trade but as an art of design, a design in black upon white, in which the just proportion of columns and margins and titles and initials was quite as important as the illustrations. Perhaps Koberger found Dürer too independent or too expensive for his taste, for we find him in his later illustrated works employing engravers more prolific than expert. Such were Michael Wolgemut and Wilhelm Pleydenwurff, who drew and engraved the two thousand illustrations in the famous Nuremberg Chronicle published by Koberger in 1493. This remarkable work was compiled by Doctor Hartman Schedel, of Nuremberg. It is a history of the world from the creation down to 1493, with a supplement containing a full illustrated account of the end of the world, the Millennium, and the last judgment. This is by no means all. There is combined with this outline of history, not less ambitious though perhaps not more eccentric than H. G. Wells's latest book, a gazetteer of the world in general and of Europe in particular, a portrait gallery of all distinguished men from Adam

and Methuselah down to the reigning emperor, kings, and pope of 1493, with many intimate studies of the devil, and a large variety of rather substantial and Teutonic angels. Every city in Europe is shown in a front elevation in which the perspective reminds one of Japanese art, and the castle-towers and bridges and riverboats all bear a strong family resemblance. The book is full of curious material, quite apart from the quaint illustrations. In the midst of grave affairs of state we run across a plague of locusts, an eclipse of the sun, or a pair of lovers who died for love. Scandalous anecdotes of kings and priests jostle the fiercest denunciations of heretics and reformers. A page is devoted to the heresies of Wyclif and Huss. Anti-Semitism runs rampant through its pages. Various detailed accounts are given of the torture and murder of Christian boys by Jews, followed by the capture and burning alive of the conspirators. Superstition and intolerance stand side by side with a naive mystical piety and engaging stories of the saints and martyrs. Of all the vast transformation in human thought that was then taking form in Italy, of all the forward-looking signs of the times, there is little trace. From 1493 to the last dim ages of the expiring world, the downfall of Antichrist and the setting up of the final kingdom of heaven upon earth, seemed but a little way to Hartman Schedel, when he wrote with much complacence the colophon to this strange volume. He left three blank leaves between 1493 and the Day of Judgment whereon the reader might record what remained of human history. It is indeed rather the last voice of the middle ages than the first voice of the Renaissance that speaks to us out of these clear, black,

handsome pages that were pulled damp from the press four hundred and twenty-eight years ago on the fourth of last June. At first reading one is moved to mirth, then to wonder, then perhaps to disgust, but last of all to the haunting melancholy of Omar the tent-maker when he sings

"When you and I behind the veil are past, Oh, but the long, long while the world shall last."

As to worthy Hartman Schedel, God rest his soul, one wonders whether he has yet learned that Columbus discovered America. He had not yet heard of it when he finished his book, though Columbus had returned to Spain three months before. O most lame and impotent conclusion! But the fifteenth century, though it had an infinite childlike curiosity, had no nose for news. Nuremberg nodded peacefully on while a new world loomed up beyond the seas, and studied Michael Wolgemut's picture of Noah building the ark while Columbus was fitting out the Santa Maria for a second voyage. Such is mankind, blind and deaf to the greatest things. We know not the great hour when it strikes. We are indeed most enthralled by the echoing chimes of the romantic past when the future sounds its faint far-off reveille upon our unheeding ears. The multitude understands noon and night; only the wise man understands the morning.



And now finally, what of William Caxton? The father of English printing had been for many years an English merchant residing in Bruges when his increasing attention to literature led him to acquire the new art of printing. He had already translated from the French the Histories of Troy, and was preparing to undertake other

editorial labors when he became associated with Colard Mansion, a Bruges printer. From Mansion he learned the art and presumably purchased his first press and type. Six books bearing Caxton's imprint were published at Bruges between 1474 and 1476, though it is possible that the actual printing was done by Mansion rather than by Caxton himself. In 1476 Caxton set up the first printing shop in England, in a house within the precincts of Westminster Abbey. Between that date and his death in 1491 he printed ninety-three separate works, some of these in several editions. His industry and scholarly zeal as a publisher somewhat exceeded his technical skill as a printer. Caxton's books, which are now much rarer than those of many continental printers of the same period, are not so finely and beautifully done as the best of theirs. But the peculiar interest of his work lies in the striking variety of the works he chose for publication, the conscientious zeal with which he conceived and performed his task, and the quiet humor of his prefaces and notes. Let me illustrate briefly these three points. First, his variety. We have observed that Aldus and Froben published chiefly the Latin and Greek classics, Koberger the Latin scriptures and theological works, and Stephanus a combination of classics and theology. Caxton published few of the classics and very little theology. His books consist largely of the works of the early English poets, Chaucer, Gower, and others, of mediaeval romances derived from English, French, and Italian sources, and of chronicles and histories. The two most famous works that came from his press were the first printed editions of Chaucer's Canterbury Tales and Malory's Morte d'Arthur. His own English translation

of the Golden Legend, a mediaeval Latin collection of lives of the saints, is scarcely less in importance. Among many other titles the following may serve to show how unusual and unconventional were his selections:

The History of Reynard the Fox.

The History of Godfrey of Boloyne, or the Conquest of Jerusalem.

The Fables of Aesop.

The Book of Good Maners.

The Faytes of Armes and of Chyvalrye.

The Governayle of Helthe.

The Arte and Crafte to Know Well to Dye.

This is indeed humanism, but humanism in a different sense from that of Aldus and Erasmus. Human life from the cradle to the grave, human life in war and peace, human life in its gayer and its graver lights and shadows, human life as embodied equally in famous writers and in anonymous popular legends, was Caxton's field. He accounted nothing human alien to his mind or to his great enterprise.

Again, Caxton was conscientious. He set great store by accuracy, not only typographical accuracy in matters of detail, but also the general accuracy of the texts or sources from which his own translations and his editions of other works were made. For example, in the second edition of the Canterbury Tales he explains how the first edition was printed from the best manuscript that he could find in 1478, but how after the appearance of that there came to him a scholar who complained of many errors, and spoke of another and more

authentic manuscript in his father's possession. Caxton at once agreed to get out a new edition "whereas before by ignorance I erred in hurting and defaming his book in divers places, in setting in some things that he never said nor made and leaving out many things that are made which are requisite to be set in." A great many other examples of such disinterested carefulness are to be found in the history of those busy fifteen years at Westminster. In view of the fact that he was not only editor, printer, and publisher, but also translated twentythree books totaling more than forty-fivehundred printed pages, this scholarly desire for accuracy deserves the highest praise. Unlike Aldus and Froben, who were likewise editors as well as publishers, he was not surrounded by a capable corps of expert scholars, but worked almost alone. His faithful foreman, Wynkyn de Worde, doubtless took over gradually a large share of the purely mechanical side of the business, but Caxton remained till the end of his life the active head as well as the brains of the concern.

As for his humor, it comes out even in his very selections of books to be printed, but chiefly in little touches all through his prefaces. For example, in his preface to the Morte d'Arthur he answers with a certain whimsical gravity the allegations of those who maintain that there was no such person as King Arthur, and that "all such books as been made of him be but feigned and fables." He recounts with assumed sincerity the evidence of the chronicles, the existence of Arthur's seal in red wax at Westminster Abbey, of Sir Gawain's skull at Dover Castle, of the Round Table itself at Winchester, and so on. But he goes on to say, in his own quaint way, which

there is not space to quote at large, that in his own opinion the stories are worth while for the intrinsic interest and the moral values in them, whether they are literally true or not. He closes thus:

"Herein may be seen noble chivalry, courtesy, humanity, friendliness, hardiness, love, friendship, cowardice, murder, hate virtue and sin. Do after the good and leave the evil, and it shall bring you to good fame and renommee. And for to pass the time this book shall be pleasant to read in, but for to give faith and belief that all is true that is contained herein, ye be at your liberty."

This wise, sane, gentle apostle of literature in England wrought well in his day, and is justly honored alike by scholars and by printers, who regard him, in England and America, as the father of their craft. Indeed to this day in the printing trade a shop organization is sometimes called a chapel, because according to ancient tradition Caxton's workmen held their meetings in one of the chapels adjoining the abbey of Westminster.



This survey of printing in its relations to the Renaissance is now not finished but concluded. I have shown that the invention and improvement of printing was not the cause but rather the effect of the revival of learning, while on the other hand the wide dissemination of literature made possible by typography of course accelerated enormously the process of popular enlightenment. I have selected five typical printers of that age:

Aldus, with his Homer.
Stephanus, with his Greek Testament.
Froben, with his Plato.
Koberger, with his Nuremberg Chronicle.
Caxton, with his Morte d'Arthur.

Here we find represented in the Aldus Homer the revival of Greek learning, in the Stephanus Testament the application of this to the free criticism of the scriptures, in the Froben Plato the substitution of Platonic idealism for the scholastic philosophy based on Aristotle, in the Nuremberg book the epitome of mediaeval superstition, credulity, and curiosity on the verge of the new era, and in Morte d'Arthur the fond return of the modern mind, facing an unknown future, upon the naive and beautiful legends of Arthurian romance. An age full of contradictions and strange delusions, but an age of great vitality, great eagerness, great industry, patience, foresight, imagination. And in such an age it was the good fortune of these wise craftsmen who handled so deftly their paper and type to be the instruments of more evangels than angels ever sang, more revolutions than gunpowder ever achieved, more victories than ever won the applause of men or the approval of heaven. In the beginning the creative word was *Fiat lux*—let there be light. In the new creation of the human mind it was Imprimatur—let it be printed. If printing had never been invented, it is easy to conceive that the enormous learning and intellectual power of a few men in each generation might have gone on increasing so that the world might to-day possess most of the knowledge that we now enjoy; but it is certain that the masses could

never have been enlightened, and that therefore the gulf between the wise few and the ignorant many would have exceeded anything known to the ancient world, and inconceivably dangerous in its appalling social menace. Whoever first printed a page of type is responsible for many crimes committed in the name of literature during the past four centuries; but one great book in a generation or a century, like a grain of radium in a ton of pitch-blende, is worth all it has cost; for like the radium it is infinitely powerful to the wise man, deadly to the fool, and its strange, invisible virtue so far as we know may last forever.



- DESIGNED BY BRUCE ROGERS AND PRINTED

 FROM MONOTYPE CASLON TYPE BY WILLIAM

 EDWIN RUDGE AT MOUNT VERNON NEW YORK

 IN DECEMBER 1921.
- OF THIS EDITION ONE HUNDRED COPIES ARE
 ON FRENCH HAND-MADE PAPER AND FIVE
 HUNDRED ON ANTIQUE WOVE PAPER.





