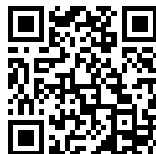

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HISTORY
OF PRINTING
PART II

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A BRIEF HISTORY *of* PRINTING

PART II

THE ECONOMIC HISTORY OF PRINTING

BEING A BRIEF SKETCH OF THE
ECONOMIC CONDITIONS OF THE PRINTING INDUSTRY
FROM 1450 TO 1789,
INCLUDING GOVERNMENT REGULATIONS,
CENSORSHIP, INTERNAL CONDITIONS *and*
INDUSTRIAL RELATIONS

BY

FREDERICK W. HAMILTON, LL.D.

EDUCATIONAL DIRECTOR



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PREFACE

IN this volume, as in the preceding, an effort has been made to give the reader some idea of the actual conditions of the printing industry in Europe from the time of the invention down to the French Revolution. Attention has been devoted to the organization and conditions of the industry, the circumstances under which the work was done, and the actual life and work of the men who did it.

The method of treatment chosen has been topical rather than chronological. It has been thought that a series of pictures of different aspects of the industry would be of more value than the ordinary detailed study of periods, of schools, and of the actual work produced at various times which is rather suited to advanced students than to beginners. This method of treatment necessarily involves a certain amount of repetition, but probably less than would be required if an attempt were made to fit the same information into a chronological framework.

To an extent even greater than in the previous volume the writer has endeavored to reconstruct in part at least the general conditions of the time. The economic history of printing or, indeed, any history of printing is a part of the general history of the period. It so happens that the peculiar conditions of the printing industry had a very marked effect in the changes which took place in the industrial world in the sixteenth and seventeenth centuries. The attempt is made to show the working of these influences in the treatment of certain parts of the subject. The main purpose, however, throughout has been to give the young printer of today an idea of the work and life of the old printers, who were very human men, engaged, though under different conditions, in the same struggle to earn their bread and butter which occupies our attention today.

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CHAPTER I

GOVERNMENTAL REGULATIONS

WE turn now to a study of the printing industry in some aspects concerning the industry as a whole, rather than the life and work of the great printers. A very large part of what follows will be found to deal with conditions in France. This happens because the study has been far better worked out for France than for any other country. While much incidental information is to be obtained from other histories, Mellotté's *Histoire Economique de l'Imprimerie* stands alone as a study of the printing industry from this point of view. Unfortunately it concerns only France and ends with the French Revolution of 1789. Conditions in France, however, were not greatly different from those existing elsewhere and for that reason the study which follows, based largely on Mellotté's work, will give a fairly accurate idea of the condition of the industry in general. It is to be regretted that Mellotté's book has not been translated into the English as it is a mine of information of great interest and value to all students of the industry.

The history of the printing industry is hardly intelligible unless one begins with a general understanding of the industries of the Middle Ages and the organization of those who were engaged in them. When Gutenberg practiced printing there was no such thing in the world as a factory. Perhaps the nearest approach to one might be found in some royal arsenal, shipyard, or mint where certain industries were carried on on a large scale. The day of invention had not yet dawned. Machinery, except of the most primitive types, did not exist. Consequently, industrial and social conditions were different in every respect from those which now prevail.

The work of the Middle Ages was hand-work carried on by a small group of workmen living in the household of the master; in other words it was what we call today household industry. Very often there was no one engaged in the work except the master and his family. Sometimes he had an apprentice or two. Master workmen usually employed as many apprentices as they could use. The apprentices paid for the privilege of learning the trade. As we shall see presently, the knowledge of a trade and admission to the ranks of the master workmen was a privilege very well worth paying for.

The apprenticeship indenture or agreement was a contract covering a certain number of years, usually seven. During this period the apprentice was obliged to work for the master to the best of his ability, to be careful of the master's goods, and to be subject in every way to his personal control, a control which extended to the infliction of corporal punishment if the apprentice were idle or disobedient.

The master was bound to teach the apprentice his trade so that if the apprentice used due diligence he might at the end of his agreement qualify as a journeyman. He was obliged to furnish him board and lodging in his own (the master's) home, to keep him decently clothed and, especially toward the end of the period, to give him a small wage for pocket money. We shall look a little closer at this matter of apprenticeship in a later chapter.

The masters themselves were organized into guilds. These guilds were a combination of what we now know as trade unions and employers' associations. Everybody connected with the trade in a regular and legal manner belonged to the guild. In some cases the master workman became so prosperous that he employed a considerable number of other master workmen and devoted his time to superintendence, but whether he were in this way an ancestor of a modern captain of industry or were at the other end of the scale, an

apprentice just under indenture, he was recognized as part and parcel of the trade guild. If he were not free of the guild he was not permitted to work at the industry excepting as an employee. As we shall see, there grew up in this way an intermediate class of hired workmen who were neither apprentices nor masters.

The guilds acted very honestly and conscientiously in the interests of both the public and the trade. While they monopolized the industry, restricted the number of persons engaged in it, and permitted no outside competition, they guaranteed the quality of workmanship and product. A guild member putting inferior goods upon the market or in any way detracting from the workmanlike standards of the guild was liable to severe penalties, and as a rule these penalties were conscientiously inflicted.*

The introduction of printing raised new questions. Printing did not fit into this scheme of things for several reasons. As a newly discovered art it did not properly belong to any of the known industries, which had gradually become consolidated into strong guilds. The printers, therefore, found themselves outside the recognized trade law.

They were, therefore, taken in hand by the authorities until such time as their own trade organization developed. Not only was the printing trade outside the guild organizations, but it was different from them in several important principles. In the first place, it was from the beginning a machine occupation; in the second place, it involved division of labor; and in the third place, it dealt with a product entirely different from that of the other craftsmen. The dawn of the printing industry was the dawn of an age of machinery in production. The product of the printing press was not simply an article of consumption. There is no comparison between a piece of cloth or a pair of shoes and a book. The book is a source of information and

* A more detailed account of the guilds will be found in Chapter V.

enlightenment, or the reverse. It may stir men to the ecstasies of devotion or incite them to rebellion or unsettle the foundations of their religious faith. It may serve the highest interests of mankind or it may be in the last degree dangerous to the church, the state, and the individual.

Obviously, to the fifteenth century mind everything called for the regulation of the industry. The fifteenth century, like those which immediately preceded it, was an age of regulation. The idea of the freedom of commerce and industry, so dear to the modern political economist, had not yet been conceived. All industry was subject to the most minute regulations partly imposed by the state and partly imposed by the guild. All the concerns of human life were subject to regulation, including even what people in different ranks of life should eat, drink, and wear. As there was no trade organization to regulate printing, of course it became immediately the subject of governmental interest.

Scarcely had the art of printing appeared when the governmental rights of regulation were invoked to destroy it, fortunately without success. Most important inventions deprive certain workmen of their occupation. The invention of printing was no exception. It necessarily meant the economic ruin of the copyists and threatened the illuminators. By the middle of the fifteenth century the copying of books had to a considerable extent come out of the monasteries and become a regular occupation. In 1472 there were in France ten thousand of these copyists, to say nothing of the illuminators. These copyists were organized into guilds with charter rights and a definite legal position. Seeing their livelihood threatened, they attempted in every way to prevent the introduction of printing. They invoked their charter rights and attempted to protect themselves thereby against the invasion of their field by the printer. Not only that, but they were probably back of the popular clamor which raised the accusation of witchcraft against Fust

and drove him out of Paris in 1465. Their opposition, however, was unsuccessful. A few of them retained their work. For a long time the manuscript book retained the esteem which is so often felt for hand work as compared with machine work. Long after the invention of printing there were many eminent collectors of books who would not have a printed book in their libraries. To this day there are a few people who live by engrossing and illuminating, although not generally by the copying of books.

An admirable illustration of the beauties and disadvantages of this kind of work may be found in the Congressional Library at Washington. There is there displayed in a series of frames a very wonderful engrossed and illuminated copy of the Constitution of the United States. The text is beautifully engrossed and the illuminated borders and the illustrations are in the finest style of modern art. At first sight it is a wonderful piece of work, but it requires but a slight examination to see that the text is full of errors. Words are omitted and misspelled so that the whole thing is practically worthless so far as its content is concerned.

A few of the copyists became printers. Probably the greater number of them lost their distinctive occupation and became absorbed in some way or other into other industries or, if they were too old for this, suffered the evils incident to permanent loss of occupation.

The illuminators at first made common cause with the copyists. Before long, however, they discovered that the copyists were making a hopeless fight and that their own occupation had a chance of surviving. They, therefore, for the most part went over to the printers and found occupation in the new industry, either directly in their old occupations as illuminators or in slightly modified form as illustrators. Many of the early books show hand-illuminated capitals and some show illuminated margins and hand-painted illustrations equal to those of the finest manuscripts. It was, however, only the more expensive books which

were separately hand-illustrated. The field of book illustration, substantially as we know it through the medium of pictures mechanically reproduced, was soon developed and offered a large field for the exercise of artistic ability and taste.

The kings and rulers generally favored printing as a means of spreading intelligence. The fifteenth century kings, unlike some of a little later period, were believers in education and patrons of learning and the arts. They had not yet come to see that their thrones, or at least their prerogatives, might be threatened by learning, and therefore they did their best to encourage it. Among all these royal patrons of printing, Francis I of France is the most conspicuous. When he first came to the throne he was under the influence of those who were hostile to the new art and attempted to stifle it by stringent legislation. An edict of his issued in 1534 prohibits printing on pain of hanging for the offender. Exactly why King Francis took so positive a position is not clear, but fortunately he very soon changed his mind and repealed the edict. From this time forward he did everything in his power to encourage printing and printers, as we have already seen in recounting the history of the Estienne family. In 1536 he made an arrangement, the first of the kind, to have a copy of every book that was printed filed in the Royal Library. In 1538 he favored the printers by granting them an edict of exemption from service in the City Guard, a service to which residents generally were liable.

During King Francis's reign labor troubles arose in the industry. Enough references have already been made to show that the strike is by no means a modern institution and that strikes in printing offices are pretty nearly as old as the industry. There were strikes, some of them of a rather serious nature, among the Parisian printers in the reign of King Francis. As soon, however, as it appeared that they were liable to injure the industry or interfere seriously with the work of the master printers the king suppressed them by a heavy-

handed use of the royal authority, insisting that trade disputes must not be allowed to interfere with the successful prosecution of the industry and that the journeymen must not be permitted by strikes to put a stop to the operations of their employers.

In 1585 King Henry III of France issued an edict relieving printers from the application of a general edict taxing artisans. This action was based on the ground that the work of the printer was so far superior in character to that of other mechanics that the printer was not to be regarded as a mechanic at all. He was formally recognized as being in a social class above the members of the trade guilds and almost, if not quite, in the class of gentlemen. Of course, we are speaking now in terms of the sixteenth century and not of the twentieth.

As an incident of this recognized social superiority the printer was permitted to wear a sword, a right which was denied to artisans generally. The old prints showing the interiors of print shops almost invariably show at least one of the workmen wearing a sword, or show a sword conspicuously displayed standing against a pillar or the wall. The introduction of the sword into these pictures is deliberately done to indicate the social pretensions of the printer of this period. It is worth remembering because although it involves a certain artificial social distinction which we now consider rather absurd it also involves certain principles which we should do well not to lose sight of. In those days printing was regarded as a profession rather than strictly a trade, and the printer was deeply impressed with the value and importance of his work, a value and importance which were not only claimed by him but recognized by his fellow citizens. It was very strongly felt that a man who made a book was engaged in a much more important piece of work than a man who made a pair of shoes or forged a sword. The more of this spirit of self respect, the more of this recognition of the importance of printing and the printed product

we can recover today, the better off we shall be.

From the beginning printers were troubled by typographical errors. Some of the earlier printers, like Caxton and Gehring, had their books corrected by hand after they were printed. As a rule, however, the modern practice of more or less careful proof reading preceded publication. There were constant complaints of inaccuracy, especially on the part of the cheap printers and the printers of pirated editions. The influence of the better printers and the insistent demands of the public finally brought about a reasonable degree of textual accuracy. It is interesting to note that royal regulation attempted to deal with this matter as it dealt with so many other things.

Charles IX of France issued an edict in 1592 the vital portion of which read as follows: "The said Masters shall furnish copies carefully edited, corrected, and made clear to the compositors lest through default of this their labor be hindered." The principle underlying the edict was a good one. It is certainly in the interest of all concerned that compositors should be furnished good copy. There is unfortunately every reason to believe that the efforts of this royal champion of copy editing were not attended with very much success.

In 1618 Louis XII organized the corporation of printers which will be discussed later. Louis XIV reaffirmed the preceding edicts governing and regulating the industry, and his great minister Colbert, in 1686, issued certain new regulations. In these it was provided that every shop should have a minimum equipment of two presses well provided with type. This was probably intended to put a stop to the small shops which did poor work and were very difficult to regulate under the police regulations which will be later discussed. The number of shops in Paris was fixed by this edict at 36. Private printing—that is to say, the exercise of the industry by persons not members of the Community of Printers—was absolutely forbidden. The quality of

the work put out was insisted upon under severe penalties in case proper standards were not maintained. The long standing disagreement between booksellers and printers was settled by a decision that booksellers could not be members of the Community of Printers, unless they were themselves printers. The bookseller, pure and simple, who was merely a dealer in books was thus barred out of the Community.

Louis XVI, the last king of the old regime, went still further in the matter of the regulation of journeymen. By his regulations every journeyman printer was obliged to register with the public authorities, to take out an identification card, and to have his domicile legally fixed and registered with the public authorities. He could not obtain employment without showing his card and could not change his residence without notifying the public authorities.

In 1789 came the Revolution which swept away all the edicts regulating printing. In this ruin royal regulation, trade organization, police supervision, and every other restraint on the trade went down together. Printing was unregulated and unlicensed. As an actual result there came a flood of printing of a very low character both mechanically and morally.

Some great houses like that of Didot stood fast by the old standards, but small printing houses flourished and the unregulated condition of the trade was in many respects most unfortunate. In the long run, however, economic laws asserted themselves as they always do. The establishment of a settled government under Napoleon and the reassertion of the old laws of libel and the like put a stop to some of the worst extravagances. At a later period, the growth and development of unions of the modern type has had its influence everywhere and the industry has at last come into its own, unhampered by artificial regulations and unrestrained by ill-advised attempts to prevent abuses which can better be dealt with by general statutes applying to all industries and by the operation of economic law.

CHAPTER II

PRIVILEGES AND MONOPOLIES

THE governmental regulations just described were similar to those imposed upon all trades. The product of the printing press, however, was not like that of other manufacturing establishments. The use of books is clearly different from the use of ordinary manufactured products. The modern printing press puts out a flood of material which is temporary in its nature. Much of it never gets read at all and comparatively little of it is considered as of permanent value. The early presses, however, turned out books almost entirely. Practically the whole product was of permanent value. It could be easily imitated, and in many cases the imitation could be produced at much less expense than the original as the imitation involved no labor of editors and compilers. Again, communication in those days was very difficult and freight rates were high. If a book could be reprinted freely by anyone who got hold of it, a book printed in a given place could be sold much cheaper than one brought from a distance. For example, a Paris printer could not compete with a Lyons printer in Lyons provided the latter were permitted to print the same books as the former.

But there was another far more important difference. The products of the printing press materially affected the human mind and through it influenced human action. When men began to read and printed matter began to be cheap and plenty, the individual in particular and the state at large entered an entirely new phase of existence. Minds of men might be filled with information or misinformation, with noble or with base desires and purposes, with high thoughts or low by the products of the press. They might be roused to patriotic action or stirred to rebellion. Their religion

might be deepened, altered, or destroyed. Immense and unimaginable influence might be and, as soon appeared, was exerted by this new agency.

These facts gave rise to certain problems peculiar to the industry. What right had the publisher to control his product and be protected against a ruinous competition from other printers? Had he any such right at all? Had the author any right to control the printing, publishing, and sale of his works? Had he any right to be secured in the receipt of some remuneration? How could that right be protected? Was the printing press to be allowed to pour out anything its owners pleased, regardless of its effect upon citizenship, religion, or morals, or should the product be controlled so as to secure the helping and not the hurting of mankind? If it was to be controlled, who was to decide upon the measures and standards of control, and on what ground? What was helpful and what was harmful?

The attempted solution of these problems, of course, grew out of the accepted commercial usages of the time. Patents and copyrights as we now know them, regulated by general laws and accessible to all inventors and authors, were unknown. Their place was taken by monopolies which, as we shall see, sometimes had much the same effect as a modern patent or copyright.

A monopoly, sometimes called a privilege, was a grant to a certain person of the sole right to sell or to manufacture a certain thing, to trade in a certain locality, or do something of a similar nature. Monopolies survive today in certain countries, though mainly as governmental monopolies; for example, in Italy the sale of matches is a governmental monopoly. No individual is allowed to sell them except as a government agent, and the traveler is not allowed to take any across the frontier, even in his pocket. In Russia the sale of vodka was a governmental monopoly until the outbreak of the Great War in 1914, when its sale was prohibited. In the middle ages, however, private

monopolies were very common. It is important to know that these monopolies or privileges were literally what the latter name indicates. Very often they were given to royal favorites as a means for their personal enrichment. They were purely acts of grace and did not imply any recognition of right on the part of the person to whom they were granted.

Those trades which could not obtain the protection of monopoly attempted to protect themselves when possible by trade secrets. This was a much more important protection in those days than it would be now. Combinations and processes, tricks of the trade which had been discovered experimentally by some clever workman, could hardly be discovered by his rivals unless they could hit upon the same thing by a tedious course of experimentation or could in some way secure betrayal of the secret. Very few trade secrets can be hidden from modern science, but modern science did not exist in the fifteenth century. The apprentice was sworn not to betray his master's secrets, and the consequences of such betrayal were very serious. As we have already seen, Gutenberg at first attempted to keep printing a trade secret, but the obvious impossibility of doing so led to other methods of protection.

Fortunately for the new art the great men of the time were interested in it and, as a rule, it was not difficult to obtain a certain amount of protection by privilege. Venice was perhaps the most advanced state in Europe in the middle of the fifteenth century, certainly it was one of the most advanced. The intelligent business men and astute nobles trained in public affairs who made up the body of citizens of the Republic of Venice were not slow in perceiving that a condition had arisen which must be immediately attended to. The matter was therefore taken up by the Council of Ten, an executive body which had large functions in the government of Venice. Their methods of dealing with the matter may be divided into four heads.

The first was the monopoly under which only one printer was allowed to work in a given town. Such a monopoly was granted John of Spire who, in 1469, was given the sole privilege of doing printing in Venice. Fortunately the unwisdom of this particular method of protection was soon seen and other printers were allowed in Venice.

The next was a form of privilege something like the modern copyright. Under this a publisher or even an author was granted the sole right to print or cause to be printed a certain book. The first one of these copyrights was issued to Antonio Sabellico in 1486. Sabellico was the official historian of Venice and the copyright covered his history. Unlike modern copyrights, which cover but a single book, these privileges might cover anything that an author had written or might write. It is clear that such a blanket copyright in the hands of a publisher might be used very injuriously, and there is evidence that they were so used either to extort money or to impede publication. It is probable that in many cases this form of privilege involved some arrangement between the author and the printer whereby the author shared the profits.

Copyright privileges ran from one to twenty-five years and were sometimes extended. Not infrequently copyright privileges were issued with limiting clauses or conditions, such as that the books should be sold at a "fair price," that the work copyrighted should be published within a year, or that a certain number of copies should be printed per week, and the like.

The third method of protection was by a privilege like a modern patent, covering certain processes or certain kinds of printing. For example: Aldus was granted the sole right to use the italic character, while others were given the sole right of printing in some foreign language.

The fourth method was the absolute prohibition of the importation of books printed outside the territories of the Republic. This was coupled with the refusal of

copyright privileges to all books not printed in Venice. Of course, in this whole discussion we must understand that Venice was not the modern city, but the medieval state, which at times was of considerable extent.

This system had certain rather serious defects in practice. In the first place the Council of Ten which issued all these privileges, although usually an extremely businesslike body, kept no record of its relations with printers. Probably this was not a serious matter for the first few years, but the time soon came when no member of the Council could remember what privileges had been granted either to printers or authors. Consequently privileges were very liable to duplication and the Council finally got out of the difficulty by issuing its copyrights with the proviso "If no previous copyright has been issued." This was very comfortable for the Council, but rather uncomfortable for the printer, because it threw upon him the burden of finding out facts which were nowhere on record. Again, there was no machinery for the enforcement of the privileges. While it is probable that legal proceedings could be instituted under them, some other machinery ought to have been provided to make them effective. Lastly, and this was, as we shall see, a common difficulty with all early privileges, they were very narrow in application. Privileges applied only to the territory of Venice and were worthless elsewhere. As we have seen in the case of Aldus, the products of the Venetian press were sold throughout the civilized world, but outside of their place of production they were unprotected by any copyright or other defence. In some cases they were excluded by protective laws similar to those by which Venice attempted to secure her printers from foreign competition. At a somewhat later period some difficulty arose because of the claims of the Papal Court to issue privileges outside of the States of the Church. On the whole, however, the Venetian system was about the best and the simplest of the early systems for dealing with the problems of the printing press.

Turning next to Germany, we find that practically all of the books printed from 1450 to 1500 were reprints of old books. The literary pirate made his appearance almost as soon as the printer appeared. We have already seen that Fust himself was the first of the brood. The fact is not surprising, however, when we remember the conditions of the time. The idea of property in a book excepting as one particular object, a piece of furniture so to speak, never occurred to anybody. Throughout the entire period of manuscript books it was everywhere held that any man who had possession of a book, even temporarily, had a right to copy it. That the owner of the book had any right to control its duplication, even though he had been at great expense to make a copy, was not considered worth discussion. If a man could copy a manuscript which had cost a hundred crowns to make, might he not reprint a book which cost less than one tenth of that amount? It was held that ownership of a printed book carried with it the same rights of reproduction which had from time immemorial been attached to ownership of a written book.

Men who wrote books wrote for the love of it. There was no such thing as authorship as a profession and no such thing as the sale of an author's work, except so far as the books themselves were concerned. It is true that certain writers were helped and perhaps supported by wealthy patrons of literature in the old world or by rich men and politicians who were willing to pay for verses or pamphlets eulogizing their names and praising their exploits. Doubtless, there were writers who lived by their wits in this way, but their case was far different from that of the modern author who either sells his work to a publisher or makes a contract for a royalty. If a man was paid for writing a poem in praise of his patron neither he nor his patron was supposed to control the poem; in a word, there was no conception of any kind of literary property, and the printers soon found that there must be

property in books or printing would become impossible.

Germany, like Venice, undertook to deal with the matter by the privilege system, although German privileges seem to have been less varied and more simple than those of the Venetians and to have concerned themselves more exclusively with the printer, to the neglect of the author. As elsewhere, a privilege was the sole right to print a work or a series of works in a given place. The peculiar political condition which existed in Germany made this a rather difficult matter. Germany in the fifteenth century consisted geographically of what is now the Empire of Germany, the Austro-Hungarian Empire, the Netherlands, and Switzerland. It was composed of a great number of states of very different sizes, from a single city up to a reasonably large country. Each one of these cities had a large degree of self government. They were all supposed to be governed by the emperor. He was called the Holy Roman Emperor and was supposed to be the heir of the old emperors of Rome. He governed largely through assemblages of the princes, called Diets, which were held wherever and whenever the emperor called them. There were also certain imperial courts and governing councils. All this elaborate scheme of government existed largely on paper. It was not generally strong enough to govern effectively, but was generally strong enough to keep things more or less in confusion.

The power of the emperor depended to a considerable extent upon his personal character and his private resources. An emperor who happened to be a strong man, governing a powerful state in the empire from which he could draw money and military support, could hold the states, which were liable to be extremely unruly, in their places and could collect the imperial revenue. A man of weaker personality or without the backing of such private resources could neither keep the turbulent princes in order nor collect the revenue.

The local princes had no sooner begun to issue privileges than the emperor began to do the same thing. A local privilege was not good beyond the limits of the small state which issued it. An imperial privilege was theoretically good throughout the empire, but practically good only in spots. If it conflicted with a local privilege, or the local authority happened to be on bad terms with the emperor it would be worthless. The result of all of this was that at a very early period the printers of Germany got together and made a sort of "gentleman's agreement," as we say today, to respect each other's undertakings. This agreement was practically the best protection of the German book trade until the development of copyright laws at a very much later period. It appears to have been relied upon by the printers more than was the privilege. Privileges were often obtained, partly because it was desirable to keep on good terms with the local authorities and partly because of the relation of privilege to censorship, which we shall discuss later, but it is clear that printing in Germany would have suffered greatly if it had not been for the existence of the "live and let live" agreement of the German printers.

Printers' privileges covered only old books. New books unless covered by some author's privilege were not covered at all, presumably on the ground that in those days, before author's rights to compensation were fully recognized, the expense and risk of producing the classics for a comparatively small market was greater than that of printing new books, especially as many of the new books were controversial and the authors paid the printers. Until about 1800 the printer was a much more important personage in legislation than the author. There was practically very little protection of literary rights of authors excepting what came through privileges, and the printer's privileges were considered much more important than the author's rights. Privileges covered:

(a) Public documents, including church books and school books.

(b) The first printing of books from the body of the world's literature.

(c) New books which were first treatments of some specific subject, generally scientific, technical, or practical.

The granting of a privilege often carried with it exemption from taxation.

Conditions in France were not greatly different from those in Italy and Germany, although France dealt with the problem by means of privileges only and had her problem somewhat simplified by unified administration over a large territory. The first privilege to be issued in France was granted Antoine Verrard in 1507 for an edition of the Epistles of Paul with a French commentary. French privileges were sometimes issued to printers for a single work and sometimes for all the works which they might print. They ran from two to ten years. They might be general, covering the whole kingdom, or they might be local, covering a single province or district. For example, one might have the exclusive privilege of printing certain books or the books of a certain author for ten years, or another might have the privilege of printing anything of a certain sort in the city of Lyons for five years.

It is understood, of course, that a privilege implied prohibition. If a man had a privilege for the works of an author throughout France that meant that no one else in France could print the same books. If he had the privilege for all that he wanted to print in Lyons it meant that nobody else in Lyons could print those books, although anybody outside of Lyons could print them freely. The French law contained one provision which does not appear elsewhere, namely that licenses could be revoked before they expired. They were occasionally issued to persons not residents of France, another provision which appears to have been peculiar

to the French law. A third peculiarity is that privileges were occasionally given to authors for the control of their works, but without the right to print them or to sell them. In such a case as that the printer would have to get another privilege to print and sell the books. He would have to pay the author for the right to do so. The question of privilege in France, like the question of censorship, which we shall soon take up, was greatly complicated by the multiplication of authorities and consequent conflict and confusion. Privileges might be issued by the king, by the Parliament of Paris (a misleading name, as the Parliament of Paris was a judicial and not a legislative body), by the University of Paris, and by the Provost of Paris. The tendency in all things French, however, from early in the 15th century to the French Revolution was toward the concentration of power, so that the right to issue privileges was gradually concentrated in the hands of the king.

CHAPTER III

CENSORSHIP

TO the mind of the fifteenth or sixteenth century man the protection of church and state and of the public was a very much more important matter than the protection of the printer or the author, and it was seen that the printing press might easily distill a venom which would poison the minds of men and threaten the health of institutions. Measures to prevent this occurrence went hand in hand with the granting of privileges. It was only natural that they should do so as they might well be regarded as conditions upon which the privilege should be granted, or, as the idea developed, upon which the trade should be exercised. France early decreed that every piece of printing put out in the kingdom must be certified as "containing nothing contrary to faith, good manners, public peace, and the royal authority." Theoretically, nothing could be more admirable. Doubtless many of us today would like to be assured that all printed matter should meet these requirements. It is obvious, however, that such regulations were liable to work very badly in practice. What constitutes faith, good manners, public peace, and the royal authority? These are, to a considerable extent, matters of opinion. It may happen that the royal authority becomes tyranny and ought to be opposed rather than supported. In the hands of the narrow-minded, ignorant, and unscrupulous, censorship laws may easily open the way to intolerable abuses. As a matter of fact, they have only too often done so, and it is for that reason that we in the United States today insist upon freedom of the press.

Possible injury to the faith was very early perceived by the church. As guardian of the faith and morals of

the people, the church felt constrained to see that nothing with heretical or immoral tendencies should be placed in the hands of the faithful. Just as Venice led the way in laws relating to privilege, so she was prominent in the matter of censoring books. Usually the body which issued licenses had charge of the censorship as well. It might not distrust the ecclesiastical examination and censoring of the books, but it made the censorship effective by its refusal of privilege. Later, as we shall see, when this procedure did not prove entirely effective other methods were taken to punish the printers and the authors of books which were deemed injurious. The first book which appeared with the approval of the ecclesiastical authorities was printed in 1480. This approval at first had nothing to do with the privilege to print, but was rather a commendation to the attention of the faithful.

In 1487, however, the Pope (Innocent VIII) issued a bull against objectionable books. This bull was addressed to the States of the Church, Italy, Germany, France, Spain, England, and Scotland. As a result, probably, of this bull, Venice enacted a requirement in 1508 that the approval of the Church should precede the granting of any privilege to print. In 1515 the Lateran Council established the principle of strict censorship. The religious troubles of the sixteenth century had much to do with the application of this principle. In the Protestant countries it was applied much less vigorously than in the Catholic countries. It must not be understood, however, that the Protestants had any broader or more intelligent views on the subject of censorship than the Catholics had. They were just as ready to recognize the principle of censorship and apply it, but the occasions for applying it were, or seemed to be, less frequent. Venice, although always a Catholic country, was careful to keep herself as independent of Rome as possible. The Venetians consequently kept the reins in their own hands with regard to the censorship of books as well as in other

matters, although they co-operated with the church authorities and offered no hindrances to the work of the Inquisition.

In 1503 Venice extended the scope of censorship to cover the literary quality of books and translations, the political effect of books, and their effect upon morals. The political and moral censorship appears to have been less effective than the religious and literary. In 1547 the Inquisition took charge of the censorship of books and the punishment of those who offended against the press laws, and continued to exercise those functions until 1730. It is interesting to note that the greatest activity of the Inquisition was in the first half century of its work, a period when religion was still the subject of bitter controversy and bloody warfare. The Inquisition took cognizance of 132 cases between 1547 and 1600. Between 1600 and 1700, however, it only dealt with 55, while from 1700 to 1730 it dealt with only four.

In 1571 Pope Pius V started the Index Expurgatorius. This Index was and is a list wherein are registered books and other publications which are condemned by the Commission in charge of it, called the Congregation of the Index, as being immoral and unsound either in religion or politics. By this means the church undertakes to protect its members from the reading of books calculated to injure their morals or to unsettle their faith.

Lines of legislation in Venice regarding censorship ran in certain very definite directions, namely: the legalizing of custom and precedent, protection of the industry against foreign competition and preservation of the excellence of the nation's press, protection of the buyer of books against poor workmanship and excessive charges (protection of the author's right has already been discussed), and the development of a Bureau to administer the press laws and regulate the industry. In 1549 the book trade was organized by the creation with definite legal recognition of the Guild of Printers

and Booksellers. It was believed that the trade could be dealt with better and could do its own work better if it were organized.

The purpose of the guild was three-fold:

1. To protect trade interests—the purpose of trade organizations at all times.
2. To assist the state and church in watching the output of the press.
3. To suppress pernicious books.

As the years went by the tendency was for the state censorship to relax and for the church censorship to become more severe. In time the censorship became very harrassing and very troublesome. In 1671, although the Inquisition had ceased to be very active in dealing with the enforcement of press censorship laws, the requirements preliminary to printing a book were so severe that one wonders that printing existed at all. If a man wanted to print a book in Venice at that time he had to secure the following:

1. A *testamur* (a sort of approval) from the Inquisition.
2. A *testamur* from the Ducal Secretary.
3. A certificate from the University of Padua.
4. Permission to print from the Council of Ten.
5. Revision of his work by the superintendent of the press.
6. Revision of his proofs by the public proof reader.
7. Collation of the original text with the printed text by the representative of the University.
8. A certificate by the Librarian of Saint Marks that a copy of the book had been deposited in the Library.
9. Examination by government experts to fix the price.

Almost every one of these processes had to be paid for. Italy outside Venice was strongly influenced by

Rome and the press was comparatively strictly controlled by the influence of the church.

In Germany, on the contrary, the censorship was probably the least severe of any on the Continent. As already noted, there was substantially no printing of original work in Germany until 1500 and consequently no special need of censorship. Shortly afterward Germany was rent in twain by religious dissensions. It must be remembered that the Reformation, being very largely a political movement, the difference between Catholics and Protestants followed geographical lines for the most part. There were comparatively few Protestants in Catholic countries or Catholics in Protestant countries. The Protestants seized upon the printing press as a method of propaganda. They consequently advocated its freedom and encouraged its use. The Catholics at first attempted to defend themselves from this attack by the suppression of printing and the destruction of imported books. After a little time, however, with greater wisdom, they themselves made use of the printing press for a counter propaganda. Those who were disturbed by the censorship in a country in either camp could and did move to one in the other. In this way unless a man had religious opinions which were unacceptable anywhere or wished to publish books which were seditious or immoral it would be entirely easy for him to find a place where he could be undisturbed and probably encouraged.

The early assertion of government control in France has already been described. Francis I, although a good friend of printing, was a loyal son of the church, and all the more so because of his unfriendly relations with Henry VIII of England who, for much of his life, was not on good terms with the church. Francis, therefore, issued edicts in 1521 enforcing the censorship which was called for by the decree of the Lateran Council already referred to.

This censorship was exercised by a considerable number of persons. This was always a defect in the

French press laws and was the cause of a great deal of difficulty and hardship. At first censorship was exercised by the bishops, by the Faculty of Theology of the University of Paris, by the Parliament of Paris, by the Royal Chancellor, by the Director-General of the Book Trade, and by the Lieutenant of Police. Tendencies to consolidation, however, soon manifested themselves. The first important step was the centering of church censorship in the hands of the Faculty of Theology of the University of Paris to the exclusion of the bishops generally.

The tendency to centralize was naturally accompanied by a tendency to tighten the censorship of the civil authorities, a tendency quite opposite to that which we observed in Venice. In 1624 a Censor-Royal was appointed to whom everybody, even the bishops themselves, was obliged to submit his writing. The numerous civil authorities having charge of censorship caused confusion for a time, but gradually their powers were concentrated in the hands of the Director-General of the Book Trade.

The laws were administered by inspectors of book-selling and enforced by the police and the civil courts. The laws were very severe. They applied primarily to the printer and bookseller, probably because he was an easier person to get at than the author and much more likely to be financially responsible. The printer was obliged to make public the name of the author and printer, the place of manufacture, and the place of sale of every book which he printed. A printer might be prosecuted if an authorized book turned out to be objectionable. This was a particularly unjust law because the printer was obliged to take the chance that, after the book had been duly censored and approved by authority, some censor, perhaps not the one who had originally approved it, might find something in it which he considered objectionable.

The penalties for infraction of the press laws were very severe. They consisted of the burning of books,

confiscation of books, fines, flogging, imprisonment, banishment, and even burning alive. From 1660 to 1756, 869 authors, printers, and booksellers were sent to the Bastille. At least one-third of these were printers.

The press laws in France were more severe than almost anywhere else in Europe. In practical operation they favored foreign printers at the expense of the French. Naturally the result of all of this regulation was that Frenchmen did not print, and the market was supplied from abroad. If the laws had been strictly enforced printing would apparently have been driven out of France. There were, however, certain mitigations. In the first place certain things were exempt from the operations of the press laws, such as legal documents, police papers, documents bearing the signatures of advocates, and small publications of two leaves or less for the spread of news or for other purposes. This particular exemption was always the cause of a good deal of question and a good deal of abuse. Again, these laws were largely held in reserve, that is to say, they made possible the punishment of offending printers, but in many cases the offender was not proceeded against unless someone complained. Again, the judges used large discretion in dealing with cases of infraction of the press laws. In many cases licenses were issued in a very informal way, so that official responsibility was not involved; and sometimes a clandestine permission was given, the printer being assured that although his book could not be approved no action would be taken against him if he published it. False statements as to place of printing were used as a means of avoiding responsibility, sometimes apparently with the connivance of the authorities. The personal influence of the Chancellor was very great in these cases, and it was entirely possible for him to protect authors or writers if he chose to do so.

By the eighteenth century the condition had become practically intolerable. There was a great mass of

laws on the statute books. Legislation was confused and contradictory and of the most drastic sort. The enforcement was sporadic and irregular, depending upon a great many personal and local considerations. There was no underlying principle to control either the making or enforcement of the laws. All this, like so much else that belonged to the life of the old days, was swept away by the French Revolution. All the laws regarding privilege, censorship, and the like were annulled in a mass. The press was given absolute freedom and left without any control whatever. Of course, it abused this freedom and the condition of things for a while was extremely bad. It finally readjusted itself, however, and gradually settled down into the condition which is familiar today.

CHAPTER IV

DEVELOPMENT OF THE IDEA OF COPYRIGHT

AS we have already seen, the early printers concerned themselves almost exclusively with the reprinting of church books and the classics. These last required for successful performance expert editorial work and proof reading. The printers engaged competent and sometimes very distinguished scholars to do this work for them and paid them for their labor. Out of this practice grew the idea that the author might properly share in the profits of the original work done by him. If he were paid for preparing a good text of Virgil, for instance, why could he not be paid for writing a critical article to be prefixed to the volume, and why not if he wrote a whole book about Virgil which the publisher desired to present to the world of scholars? At first there was some objection on the part of the writers themselves. It was held by many that it was undignified and improper for a writer to sell his ideas. Such opinions soon ceased to be common. The race of professional authors living by their pens came into existence.

The same questions which arose with regard to the printer's right to his work extended to the question of the author's right. Even before the author's pecuniary right in his work was clearly recognized the claim was asserted that he ought to have control of it. Luther, for example, strongly asserted this right of control and strenuously objected to piracy on the ground of his desire to safeguard the correctness of texts purporting to be written by him. He does not appear to have cared for the money, as he himself corrected the texts of pirated editions of his works. He feared, however, that harm might come through typographical errors or even the deliberate falsification of his writing. This

has always been a real danger, and one of the greatest complaints made by European authors against American printers previous to the days of international copyright was on the ground of the incorrectness of the pirated editions.

One of the first persons to enjoy anything like copyright protection in Germany was Albrecht Dürer. The city government of Nuremberg undertook to protect Dürer and his family in the right to print and publish his works. It is a curious mark of the undeveloped state of public opinion regarding these matters at this time that Dürer seems to have been protected more as an inventor than as an author. The early German copyrights in many cases seem not only to have prevented others from reprinting a specified book but also from printing any book on the same subject. For example, Dürer wrote a book on *Proportion* which was published in Paris. Before it was completed another artist named Beham undertook to publish a book on *Proportion*. Beham was ordered not to publish his book until after Dürer had completed publication. He insisted that his work was an absolutely independent one, not in any way copied from or related to the work of Dürer, but his plea was disregarded, although, as it afterward turned out, it was quite true that his work was entirely independent.

Throughout Europe during the period we have under consideration we find two ideas gradually clearing themselves from the confused thinking of the time and coming into recognition. The first is the idea that the writer of a book has for a time at least property rights in it, and the other that old books belong to the public. That is the basis of our modern thinking on the subject. We recognize that any writer may copyright his work and is entitled to the control of it during the copyright period, which varies in different countries. When his copyright has expired any publisher who cares to undertake the venture as a business proposition may bring out an edition and sell it at whatever price he

chooses. That is the reason why old books are generally cheaper than new books. An edition of Scott or Dickens is purely a manufacturing proposition. An edition of Maurice Hewlett is a very different matter because Mr. Hewlett, or his publisher, holds copyright on his works and must be paid for the privilege of publishing.

Another important development in thought was the growth of the idea of right as distinguished from privilege. A privilege, as the word implies, is an act of grace. It is a grant of permission to do a thing which one has no inherent right to do. In England, as we shall later see, when the idea of copyright came to be seriously considered it was based on the common law, that is to say, it was recognized that the printer and author had some rights in the matter.

As soon as it was seen that the printer and the author had produced something more than a mere piece of merchandise and that the property right of the producer inhered in that added element quite as much as in the piece of merchandise the basis was laid for the common law treatment of the whole matter. The extension of the conception of property to cover thoughts as well as things was the basis of the whole matter.

It was a long time before these ideas emerged on the Continent. It was well to the end of the 18th century before these matters were clearly understood and recognized by law. It was not until 1777 that French law distinctly recognized the difference between old and new books, and the rights of the author. This was only twelve years before the French Revolution. At that time all the old laws were swept away and the extreme regulation of printing in France gave place to no regulation at all, which for a time made things worse than ever. It was not until into the nineteenth century that the question of copyright has been reasonably settled. There is still something to be desired before ideal conditions are reached. Copyright laws

of the various nations differ greatly, but on the whole they fairly accomplish the desired results within the national boundaries.

International copyright rests on the Treaty of Bern in 1887. The United States was for many years a great offender in the matter of the recognition of the rights of foreign authors. At the time of the Treaty of Bern the United States recognized the principle of international copyright, but we did not have reasonably satisfactory legislation on the subject until so recently as 1909. In this, as in other matters which we have been discussing and shall discuss in this volume, very little reference has been made to England for the reason that a separate volume will be given to the history of printing in that country.

CHAPTER V

TRADE GUILDS AND THE COMING OF THE NEW INDUSTRY

THE outstanding factor in the industrial, social, and economic life of the Middle Ages is the trade guild. The real life of any people is not the story of its wars or the record of the doings of its kings and nobles. It is the life of the people themselves. The moment we try to study this aspect of these old times we find that in the towns especially the life of the people centers around their trade guilds. The guild was an organization of all the workmen in any given trade. It included the master workman, the journeyman, and the apprentice. It controlled the whole life of the industry from the buying of materials to the selling of the finished product, from the indenturing of the apprentice to the certification of the master workman. Its peculiar strength lay in the fact that it did not exercise this control in the interest of either the employer or the employed. It exercised it in the interest of the industry as a whole. It did not forget the interests of the public. It did not permit the industry to be practised by the unauthorized or outsiders. It limited competition. It distributed labor. It prevented over-production. It assumed great responsibility for its members and it held them to a very strict accountability.

Of course, such an organization was possible only under conditions of production far different from those which now prevail. All work was hand-work and each hand-worker was supposed to make the whole of the thing produced. There were no machines of any importance and there was practically no division of labor. The armorer, for example, made his helmet, carrying it through every process from the first shaping

of the steel to the attaching of the last plume. The shoemaker selected his leather and carried it through every process until the shoe was finished. Men learned trades in those days. They did not learn to tend a machine. A trade was worth something because the trade organization of that day made lack of employment impossible for a decent man in ordinary times. Learning a trade took a long time. As soon as the boy was old enough to begin to learn he was apprenticed to a master workman, usually for a term of seven years. Usually he paid something for his apprenticeship, in some cases a considerable amount. He lived in the master's family and was supported by him until he was out of his time. He then usually worked as a journeyman until he could accumulate the small capital necessary to set up as an independent master.

Having been apprenticed under guild regulations to a guild member he became a member of the guild himself as soon as he qualified as a journeyman. Meantime he had not only been thoroughly instructed in the practice of the industry but he had absorbed the craftsman's spirit and become imbued with the great principles of guild life. These principles were five:

1. General protection of workmen. This has perhaps been sufficiently described already.

2. Limitation of competition. This has also been remarked upon.

3. Perfection of work. The guild always stood behind the quality of the product made by its members. If goods were not up to standard in quality it was not only held to be a disgrace to the guild, but the offending member was liable to severe punishment at the hands of the guild itself. The guilds maintained their own inspectors. These inspectors visited the shops and the fairs or occasional markets where goods were sold. If they found poor work in the shop or if they found that poor work had been put in the hands of the merchants for sale, they reported it to

the guild officers who immediately dealt with the offending member.

4. Honesty in business. The guild member not only made his goods but sold them, generally directly to the public. Sometimes he sold them to merchants and sometimes he sent them to certain cities where at certain times markets or fairs were held, there to be sold on commission. More often, however, he made and sold his own goods in his own shop and lived in the same building with his family, his apprentices, and sometimes his journeymen. The guild stood for full weight and measure and for honesty in all business transactions. It punished faults in these directions as sternly as in the making of poor goods.

5. The maintenance of the social order. The guilds were always to be found arranged on the side of law and order, although that did not always mean that they were on the side of the king or other constituted authority in periods of civil disturbance.

The members of the guilds, all fighting men usually serving under their own guild banners and their own leaders, were an important part of the military force of the medieval cities. Although they might and did fight on one side or the other of some civic quarrel they always stood for order in the community just as they did for honesty in production and trade. This, however, is closely connected with the further fact that the guilds had a distinct religious side. The medieval man was not perhaps very much more religious than his modern descendant, but he was religious in a different way and paid much more attention to the forms of religion. Religious ceremonies formed a part of the regular routine of guild life and in many cases special churches were closely identified with certain guilds. Closely connected with the guilds were organizations known as confraternities. These confraternities were religious, charitable, and social organizations. Although usually drawn from members of

some particular industry, they did not attempt to exercise the trade control which was in the hands of the guilds. They adopted the name of some saint who was chosen as their patron. They had a solemn feast following attendance at church on his day in the calendar, and they maintained a fund out of which the needy could be assisted and the dead buried with due provision of masses for the repose of his soul in case the family funds were not sufficient.

You see we are dealing with a time when the lives of men were very simple, very neighborly, and at least so far as observance goes, very religious. It is very important that we should have some fairly clear idea of these times if we are to understand at all how the early printers lived, what they did, and why they did it.

The thirteenth, fourteenth, and fifteenth centuries were the golden age of the guilds. They were at the height of their power and influence at the period of the invention of printing. The sixteenth, seventeenth, and eighteenth centuries were a period of decline. At first the decline was slow. After the sixteenth century, however, the decline was rapid, and long before the end of the eighteenth century the guilds had lost practically all of their old-time power and influence. In some portions of Europe the old guild organization still exists, but its influence is very slight and its purposes are far different from those of the old organizations of the Middle Ages.

This decline was the result of the changing economic conditions. One of the most important of these was the development of the modern type of production in factories using costly equipment and employing large numbers of men. The old type of production required little or no capital. There was practically no costly machinery. The work was done in the master workman's house by himself, his sons, and apprentices. No expensive outlay for materials or plant was required. The journeyman required practically no

capital for starting in business beyond his personal strength and skill.

Printing was the first industry which could not be carried on under the old conditions. From the beginning the printer must have capital to supply type, presses, and other equipment, to purchase material, which was costly, and to maintain himself and those who were working with him while a long process was being brought to completion and the product marketed. In order to carry on the business to any advantage a considerable number of persons must be employed. Under these circumstances printing was necessarily from the beginning an enterprise which required the co-operation of capital and labor to an extent hitherto unknown.

Another reason for the decline of the guilds may be found in the increasing power of the government and its progressive control of the citizen. The control and protection thus exercised by the government rendered the protection and control exercised by the guild over its members not only unnecessary but improper. While in some respects governmental control and the freedom of a well-organized system of courts did not protect the rights of the individual and insure the quality of product as effectively as the guilds had done, it was inevitable that particular regulations should give way to general regulation and that the individual should not only be taught but compelled to look to the state rather than to an association of individuals for the protection of his rights and the definition of his duties.

It was probably this more than anything else which brought about an increasing antagonism between the guilds and the state in every country. In the years of their growth and power the guilds, as we have seen, had been the strong supporters of the social order, the pillars of the state, and the firm reliance of the government, or at any rate of that party in the government which they supported. When the government became strong enough to desire to stand alone, the power of

the guilds, which had formerly been useful, became decidedly objectionable, and the entire influence of the state was more and more directed against them.

Another important social change was the development of free labor and free capital, resulting in the separation of industrial classes. Under the guild system there was no separation between labor and capital, or between the employers and the employed as classes. The guilds were associations in which labor and so much capital as there was were combined in a close organization, while there was neither labor nor capital in any particular amount outside the guild. With the gradual change of conditions, growth of population, increase of wealth, and greater intercourse between communities there grew up on one end of the social scale groups of laborers who were not members of any guild and on the other end accumulations of capital which were either in the hands of men who were neither craftsmen nor guild members or of those who had larger accumulations than they could use in their own business. This development of laborers seeking employment and capital seeking investment was fatal to the guild system when once the progress of invention made the factory system possible.

One of the factors which accelerated this movement was a curious combination of high prices fixed by the economic law of supply and demand and low wages fixed by the ancient law of custom. It must be remembered that at this time the science of political economy did not exist. People did not know the laws which govern business and control prices and wages. They ignorantly supposed, as some persons still suppose, that these things may be governed by statute, being entirely unaware of the fact that they are really the product of causes for the most part beyond human control. In the early Middle Ages wages and prices were fixed on a basis of custom. The three centuries which formed the golden age of the guilds were a period of very slight industrial changes. There were

no great changes in population. There was no colonizing, with the consequent opening of new markets. There were no modern inventions. There was no particular change in the amount of gold and silver in circulation. Consequently the law of supply and demand made itself felt so little through variations in prices and in wages that it was entirely neglected. It became the custom to pay a certain amount for each commodity, and especially to pay a fixed rate of wages in certain occupations. Nobody thought of paying less or of asking more than this customary sum. In case anybody did attempt any modification of this sort he was promptly checked by law. Attempts were also frequently made to prevent by law variations in prices.

This condition of things was completely upset by the changes which took place about the time of the discovery of America. One of the immediate results of the opening up of the mines and treasure hoards of Mexico and Central and South America, with the consequent enormous increases in the amount of gold and silver in circulation, was a rise in general prices of about 100 per cent or, to put it differently, a cutting in two of the value of gold and silver. Gold and silver are just like other commodities. When the amount of gold in a given market is doubled its value is halved; that is to say, you have to pay twice as much for whatever you want to buy.

The opening of new markets and the stimulus given not only to invention but to production and communication by the intellectual movement and consequent discoveries and inventions which were going on at this time upset industrial conditions tremendously. As usual, however, the workmen were the last to feel this change. Men paid more gold for commodities because they could not get them at the same old price, but wages for a long period remained fixed by custom. The laborer, like other people, had to pay more for what he bought, but unlike other people did not get

any more for what he sold. This condition was made even worse by ignorant and sometimes disastrous attempts to control by legislation a situation which nobody understood. Statutes to fix prices and curtail profits are never enforceable unless backed by a government monopoly of production. Consequently the extensive legislation for these purposes was useless. Unfortunately there was also legislation forbidding combination of workmen, forbidding their passage from place to place in search of work, and forbidding their asking or receiving more than the customary rate of wages. Some of this was old legislation revived. Some of it was new. While not entirely effective, it was much more effective than the legislation with regard to commodity prices, because in the nature of things it was much more easily enforceable.

The natural consequence of these conditions was the disruption of the old economic order. The employer and employed, who had been associated together in the old guilds, separated into antagonistic, if not hostile, camps. Capital and labor instead of co-operating contested for supremacy. Guilds, if they survived at all, gradually became associations of masters. We shall see how this worked out in the development of the Community of Printers. The workmen gathered into organizations of their own which were the ancestors of the modern labor unions. The modern industrial system with all its power and with all its abuses came into existence.

Printing did not fit into the guild system at all. As has already been pointed out, the very nature of the industry prevented it. Indeed it was not legally regarded as an industry or a mechanical occupation until the great reorganization of the trade in 1618, a date to which we shall have frequent occasion to refer. At first it was regarded as an art or profession and those who practiced it were legally recognized as not being mechanics and not being liable to the laws governing mechanics. From 1450 to 1618 the printing

industry was a sort of industrial outlaw. It was not under guild control on the one hand and was not amenable to the general statutes regarding industry on the other. That meant that the regulations which were at this period so advantageous to the other industries did not apply to this one, with numerous unfortunate results.

The industry at first attached itself to the universities. It was utilized, as we have seen, not for a commercial purpose as now, but for the production of Bibles, the classics, and other learned books almost exclusively. As we have also seen, the universities attempted to control the output of the press until more effective methods of censorship were devised.

Previous to the invention of typography there had been a sort of guild of the makers and sellers of books. In most places this was known as the Confraternity of St. John the Evangelist, sometimes as the Confraternity of St. Luke, and in one place at least as the Brothers of the Pen. This organization continued to exist as an association of printers, but it did not have the power and standing of the great trade guilds of an earlier period. Soon after the invention of printing the journeymen and apprentices formed an association of their own, which very soon developed into something like a labor union. The result of these conditions was great disorganization in the trade. Strikes were frequent. In France particularly the period from 1539 to 1544 was one of great disorder. Accounts of a series of strikes in the city of Lyons at this period read almost like the accounts of a serious labor disturbance of the present time. Shops were picketed. There were parades of strikers. There were riots by the strikers and their sympathizers, and an appeal to the town authorities to settle the matter. The settlement proposed was so unfavorable to the master printers that they threatened to leave Lyons in a body. This would have been a very serious matter, as printing was then one of the great industries of the city, and the

disturbance was finally settled by a compromise which granted the journeymen some of their more important demands and yet left enough to the masters so that they felt that they could continue in business. The great grievances complained of were low pay, poor food (the journeymen were boarded by their employers), too many apprentices, and the unwillingness of the masters to allow them to work at certain times when they wanted to work, such as on the eves of Sundays and feast days and the like, and to abstain from work at certain times when they did not want to work.

Attempts were made to stop the disturbances in the trade by the intervention of the government. This intervention was entirely on the side of the masters. The journeymen were forbidden to do anything whatever to injure the masters or to impede their business and they were denied the limitation of apprentices for which they had asked. Guild regulations limited the number of apprentices taken in other industries and it seemed only reasonable to the journeyman that similar regulations should obtain among the printers, but the royal authority was constantly exercised against them. This attempted settlement by royal authority was immediately followed by still more serious strikes. The masters complained that the agitation was due to the pernicious activity of labor leaders and invoked the royal edicts. The journeymen alleged abuses, claimed their rights, and undertook to enforce them by combination. The royal authority was exercised in the effort to coerce the journeymen even to the point of threatening by an edict of 1617 that workmen who interfered with the conduct of their master's business should be put to death. This, however, was the last expiring effort of the old order of things. In the next year, 1618, a royal edict organized the trade and prescribed the regulations under which it should be conducted.

This organization, which we shall proceed to study in detail, was the basis of the conduct of the printing

industry in France until 1789. It did not bring industrial peace and it did not remedy all existing evils. As we shall see, the history of printing is a history of industrial conflict throughout the whole period until 1789. Henceforth, however, the regulation of the trade, the establishment of a responsible organization, and the fixing of regulations between masters and men changed the field of strife. We hear little or nothing more of strikes. The state was recognized as the source of regulation and as the arbiter of questions which might arise between the associated employers on one hand and their partially associated employees on the other. The industrial struggles hereafter took the form of litigation rather than of strikes. The outlaw industry at last obtained a recognized, responsible position in the industrial world.

CHAPTER VI

THE COMMUNITY OF PRINTERS

AN unregulated trade, conducted under conditions of absolute freedom approximating those of the present day, was not only out of place in the Middle Ages but was practically impossible. We have seen how the attempt to carry on a trade under such conditions resulted in a state of intolerable confusion in the printing industry. Accordingly a royal edict was issued by King Louis XII supplying the needed regulations for the conduct of the industry according to seventeenth century ideas.

So far as the industry itself was concerned the important feature of this edict was the organization of the Community of Printers. This Community embraced all the printing trades; that is to say, printing, book binding, type founding, and bookselling. The master workmen carrying on shops in any of these allied industries were members of the Community. It differed from the trade guilds in that it was an organization of employers only. It did not include even the master workmen who were not employers.

Certain matters were decided upon by the Community as a whole, but the work of the Community was carried on for the most part by a sort of Executive Committee called the Syndics. This Committee consisted of a chairman, who is usually referred to as the Syndic, and four associates or assessors. This board was chosen annually. Originally the elections were held in general assemblages of the industry at which all members of the Community were entitled to vote. Later the elections were in the hands of a board consisting of the five syndics for the year, past members of the board of syndics, and twenty-four electors. Of these twenty-four, eight were printers, eight booksellers,

and eight binders. The type founders appear never to have been very important members of the Community and probably soon ceased to be represented among the syndics. At the time the Community was organized typesetting was not a separate industry, but was carried on by the printers themselves.

The duty of the syndics was to act as the corporate representatives of the industry. They fixed wages and prices. They adjusted disputes between their fellow-members and acted for the employers in dealing with the employees. They had powers of visitation and supervision. Through these they were supposed to exercise a sort of censorship over printing, to maintain the quality of work done, to see that trade regulations were enforced and trade agreements carried out; in a word, to exercise the same minute control over the industry which was exercised by the guilds.

The new organization was a very great improvement over the former lack of organization, but it was very far from being completely successful. Its first effort was to regulate admission to mastership and so to membership of the Community. The number of shops in Paris in 1618 was 76. By 1686 this number had been reduced to 36 and the process was still going on. At Troyes in 1700 there were 16 shops and in 1739 only 3. This limitation was brought about by freezing out the small shops, by strict regulation of admissions to the Community without which the business could not be legally carried on, and by the purchase from time to time of certificates of membership. A certificate of membership in the Community was a very considerable asset to an individual and on his death it passed to his heirs. While it could not apparently be sold outside the family, it had distinct value and could often be purchased and cancelled by the Community. Except by inheritances membership might be obtained only through advancement in the trade from apprenticeship through journeymanship to master workmanship, as we shall see later. The fees required

for membership of the Community and the capital required for carrying on business were so great that very few attained membership of the Community in this way. Membership of the Community, however, was open to the sons of members or to those who might marry the widows of members, and in a very short time membership became practically limited to those who obtained it in one or the other of these ways.

The Community was undoubtedly very useful in giving a corporate center to the industry and also in giving more support to trade usages, contracts, and agreements. On the other hand its efficiency was greatly weakened by the quarrels which immediately broke out between the three elements of the Community and which lasted until the final break-up of the old conditions in 1789. The quarrel was mainly between the printers and the booksellers or publishers. The binders were soon recognized as forming an independent industry and they were before very long eliminated from the Community of Printers. They formed a Community of their own in 1686 and need not be further considered.

The hostility between the booksellers and the printers began with the invention of printing. Their interests were so closely related and yet so antagonistic that an attempt to combine them in one Community while at the same time keeping their functions separate resulted in constant quarrels and in a weakening of the influence of the Community itself.

The booksellers, for instance, were lax in their supervision and control in matters where the printers were directly concerned, while the printers were equally negligent of the interests of the booksellers. The printers naturally desired to restrict the number of printers but they were glad to see the number of booksellers competing for the privilege of handling their output increased indefinitely. The booksellers, being fewer in number and probably richer, were more united.

and more aggressive than the printers. They attempted to get control of manuscripts so that the printers could not produce anything without first paying toll to the owners of the manuscripts. We must always remember that at this period the great mass of commercial and periodical printing which supports the industry today was not in existence, and that printing was practically confined to books and official documents. The booksellers also wanted to print for themselves; that is to say, to hire journeymen printers and so make themselves independent of the master printers. By their resistance to the closing of the mastership and by the cultivation of competition they did their best to lower the prices of printing. In a word, they endeavored to subjugate the printers entirely. In this they did not succeed, but they kept the quarrel alive, very much to the detriment of the industry, until the end of the old industrial order.

CHAPTER VII

HOW THE OLD-TIME PRINTERS WORKED

BEFORE considering the organization of a shop and the conditions under which the work was done, it is worth while to look into a printing establishment of the sixteenth, seventeenth, or eighteenth century and see how the work itself was carried on. This general view of an old-time printing plant will be made fairly full even at the cost of some repetition of facts already stated elsewhere on account of the importance of presenting here as complete a picture as possible of the life and labor of printers in the centuries under discussion.

Originally the printer did everything except to make his paper and his presses. He designed and cast his type, he made his ink, he edited his manuscript, printed his books, bound them, and, for a time, sold them. We have just considered his relations to the bookseller. He got rid of his type casting about one hundred years after the invention. The type foundry of Guillaume Le Bé, established about 1551, seems to have been the beginning of type founding as a separate industry, although in later years some very large establishments maintained type foundries and even paper mills as incidents of the business; but the printer from this time on began to get his type outside.

Bookbinding came to be regarded as a separate industry at about the same time.

Ink making was done by the printer until comparatively recently. The ink balls which were used for distributing the ink on types were made by the printers themselves until the ink ball was superseded by the roller with the coming in of modern presses. Even then rollers were made in the shops for a long time, and indeed the practice is hardly now entirely discontinued.

The early paper was hand-made and was thick, with a rough, furrowed surface. It was grayish or yellowish in color and was very strongly water-marked. It was very costly, but very durable. It was heavy and hard to handle, especially as it was handled without mechanical appliances.

The early types were irregular in face and body as the natural result of being cast in hand moulds from hand cut dies. The early types were cast on large bodies and were used without leads. The point system, which reduced type to uniformity and did away with the annoying irregularity in size of the old types, did not come into existence until the middle of the eighteenth century, three hundred years after the invention of printing. Of course, all composition throughout this period was done by hand. Women were employed as compositors as early as 1500, but they apparently disappeared from the industry before long, as we find no evidence of their presence after the reorganization of 1618 or for some time before that.

The press was substantially the old screw press of Gutenberg in which the platen was forced down onto the bed by the direct pressure of a screw. A few improvements had been made. A sliding bed was introduced in 1500. A copper screw (more effective and durable than the old wooden screw), tympan, and frisket were added in 1550, and the so-called Dutch press, which did away with the necessity of raising the platen by a reverse motion of the screw by substituting leverage for it, was introduced in 1620. These were the only improvements of any note which were made before the introduction of the Stanhope press about 1800. Of course, the presses were worked by hand power and it will be seen that the setting up of the screw or the throwing of a lever with sufficient force to insure a good impression was an extremely laborious task. It was sometimes dangerous, as the screw bar or lever was liable to break when the workman's weight and strength were thrown upon it, resulting in serious injuries.

The ink was good—well-aged linseed oil, boiled until viscous when cool, and mixed in a mortar with resin black. It was mixed in the proportion of thirty-two ounces of oil to five ounces of black. Of course, it was variable, its quality depending upon the quality of the ingredients and the care exercised in preparation. It was spread on the type by means of balls of leather stuffed with wool and firmly attached to wooden handles. One of these balls was taken in each hand, a small portion of ink was spread evenly over the balls by rubbing them together, and the ink ball was then passed over the type so as to distribute the ink as evenly as possible.

Composition was done by the full page. This was a fairly reasonable method of reckoning, as the kinds of printing were not varied as they are now. Compositors worked "on honor" and were paid by time. Payment by ems is a very late advance, not having been adopted until about 1775.

Imposition was done practically as now.

The pressman's day began by the preparation, through softening and cleaning, of the balls which were to be used on the day's run, and the mixing of the amount of ink considered necessary for the day's work. Make-ready, adjustment of margins, register, and the like had to be attended to before the impressions could be taken. Meanwhile the paper had been dampened. The old screw press could not print on dry paper. Paper came from the mill in "hands" or packages of twenty-five sheets, folded once and laid inside each other as note paper is now sold by the stationer. A "hand" was dipped in a tub of water. It was then taken out and the sheets were placed flat under weights to squeeze out the superfluous water and keep the sheets in shape. After the water had been squeezed out the sheets were re-folded into "hands" and sent to the pressroom to be placed upon the press while still damp.

Two men worked together on the press, one inking the type and the other making the impression. They worked turn and turn about in hour shifts so that the more and less laborious work was equally distributed.

Two-color work was done by taking two impressions from one form. The parts which were intended to be printed in red were set in higher type than the rest and a perforated frisket was used. The red ink impression was taken first. The type for red ink was then removed and slugs were put in, making the form type high throughout. From this form the impression was taken in black ink. As might be supposed, the register was almost always imperfect.

The printed leaves while still damp were piled under weights to remove the counter impression of the type which naturally struck through the damp paper.

The printing was done with the paper sufficiently damp to make this simple process of removal fairly successful. Later the printed sheets were pressed between heated plates of metal, giving a very smooth and glossy surface to the page.

The pressman was paid by time like the compositor, but he was expected to accomplish a given amount of work in a day. In Paris, about 1575, he was expected to print 2650 sheets, while at Lyons the day's work was held to be 3350. All folding, of course, was done by hand with no further assistance than that of the bone or wooden folding stick. The first sheet from the press was taken as a sample or proof. Proving, as distinguished from printing, was then unknown.

Proofreading was done practically as now and the proof marks were substantially the same. Two corrections per page must be made by the compositor without extra compensation. Other corrections were apparently not made by the original compositor, but by other workmen who were employed as piece workers on that particular occupation for the time being. The printer appears to have ordinarily managed to get these corrections charged to the author.

There was a rude system of cost finding and estimating in force. In making a price on a job the printer charged first for the paper. Whether or not he took a profit here is uncertain, but he probably did when he thought he could get it. The paper did not enter any further into his computation. He next estimated the cost of the labor. He then figured 50 per cent of the labor cost as overhead, including such minor items as ink and other special materials which might be needed on that particular job before it got to the customer. He then added another 25 per cent of the labor cost, which was supposed to be profit, and upon that basis he made up his price. Presumably there were price cutters and more or less unsuccessful guessers in those days as there are now, but the method just outlined was supposed to be that by which printers generally reached their figures. The financial success of the printer depended, of course, on operation. He might so conduct his work that the 50 per cent overhead might leave a considerable margin to be added to the 25 per cent profit or, on the other hand, he might so bungle it as to eat up the 25 per cent and more too.

CHAPTER VIII

INTERNAL ORGANIZATION OF THE INDUSTRY

THE workers in the industry were divided into four clearly defined classes, namely apprentices, laborers, journeymen, and masters. In this, as in most respects in this volume, the study is based largely on conditions prevailing in France for the reason that we have much more abundant material from French sources than elsewhere. The conditions in France, however, were probably substantially the same as those which existed elsewhere, so that by studying conditions in France we get a very fair idea of those which generally prevailed at this period.

Apprentices

The apprentices, as now, were the boys and young men learning the industry under an apprenticeship agreement. The age of apprentices varied considerably. They were not often received under seventeen or above twenty-four. Perhaps the majority of them were received at the age of nineteen or twenty.

The printer's apprentice was probably a little older as a rule than the apprentice in other industries because he had to have a much more extensive previous education. It was not only necessary that he should be well versed in his own language and in the essentials of ordinary education, but it was necessary that he should also be able to read and write both Latin and Greek. While it is true that after a few years many books were printed in the native tongue of the printers, it must not be forgotten that the printing of this period was almost entirely book printing and to a very great extent the printing of books of what we should call today religion and serious literature. Latin was the universal language of the Catholic Church as it is today. It was

also the language of learned men everywhere. No scholar thought of writing a serious work in English, French, or German. He might translate one into the vernacular or he might, especially after the beginning of the religious controversies, write a controversial book in his native language, but for the most part serious writing was done in Latin. There was a considerable amount of printing of Greek classics in the original, although there was not much use of Greek for original composition. Under these circumstances it is clear that the knowledge of these tongues was very important. The enforcement, however, of the strict requirements of this period was a cause of many disputes in the industry. The employers then as now were ready to hire cheap help for cheap jobs, and they were given to taking on apprentices far beyond the requirements of recruiting the industry because they could get a good deal of work out of them which otherwise must be given to higher priced men. In many cases they were willing to take on apprentices who did not understand Greek or even Latin. The result was injury to the industry itself and to the interests of the workmen, as is always the case when employers take on improperly trained apprentices who are incapable of development into the highest efficiency. We shall meet these half-trained apprentices a little later.

Further requirements were that the apprentice should be of good life and manners and that he should be a Catholic and a native of France and unmarried.

An apprenticeship agreement was a formal contract. Originally this was a verbal contract only, a sort of "gentlemen's agreement." After the reorganization of 1618 it was a written contract drawn up by a notary. The period of apprenticeship varied somewhat, especially before 1618. In general, however, it was four years. The condition of the contract was that the apprentice should pay a specified sum to the master for the privilege of learning the trade and that he should agree to serve his master with care and diligence

for a period of four years and not neglect his master's interests nor spoil his master's goods. In return the master was bound to teach him the trade of printing so that at the end of his time he would be qualified as a journeyman. In addition the master was bound to furnish the apprentice lodging, food, clothing in specified quantity, and sometimes a very small amount of money.

The apprentice lived in the master's house and ate either at the master's table or at the table set for the journeymen, who also received their food from the master. If the apprentice absented himself for any reason from his work his absence must be atoned for by double time added to the period of apprenticeship. If his absences were repeated he was liable to be discharged. In this case the master was held to be the sufferer, the contract of apprenticeship was cancelled, and the entire amount paid in by the apprentice as a premium was forfeited to the master. It frequently happened that apprentices desired to be relieved of their contracts before the expiration of their time. Sometimes it happened that they changed their minds about becoming printers, more often, probably, they sought short cuts into the industry. It has always been the misfortune of printing that a very imperfect knowledge of it has a comparatively higher market value than an equally imperfect knowledge of other industries, while the period of apprenticeship required for full learning of the trade is long and wearisome. The apprentices were often tempted by offers of occupation as laborers or even as journeymen in some of the poorer shops which were willing to evade regulations. The habit of canceling indentures before their expiration for a money consideration thus grew up to the serious detriment of the industry.

The printers made profit by taking the premium from the apprentice and then selling him his freedom before his indenture had expired. The injury to the industry and to the well-trained workman of this competition of half-trained, incompetent workmen is perfectly clear.

The masters, of course, complained that the apprentices were idle, wasteful, and unteachable, and probably some of them were. Boys and young men were good, bad, and indifferent in the Middle Ages just as they are now. The apprentices complained on the other hand that they were overworked, underfed, and personally abused in many instances. Doubtless these complaints were often well founded because grown-up men were good, bad, and indifferent in the Middle Ages very much as they are now.

At best the work of the apprentice was very hard. Living as he did in the master's house and working in the shop as a beginner, he was a cross between a domestic servant, an errand boy, and a learner in the industry. The master's wife might call upon him to wash the kitchen floor. The foreman might send him out with a package of proofs. The workmen might send him out for a bottle of wine or a pot of beer, or he might be set to work on one of the legitimate tasks of his apprenticeship only to be called away at almost any time by some such personal demand as those just indicated. His hours, like those of everybody else in the trade, were very long. He was expected to keep the shop clean and in order, to clean the type and the presses, to mix ink, to dampen paper, and if he were strong and well grown he might even be put to working on the press. These and a thousand other things, many of them unknown to modern shops, were required of him besides the work at the case and elsewhere which gave him his real knowledge of the trade.

The question of the number of apprentices was a burning one. Previous to 1618 it was one of the great causes of strikes and labor disputes. The masters at that time desired to increase the number of apprentices indefinitely, to which the journeymen objected on account of the injury to their interests by having too many workmen, especially cheap ones. The journeymen succeeded in securing a royal edict which limited the number of apprentices to be

employed in any establishment to two for each press, one on composition and the other on presswork. The shop conditions which have been already described show that this taking of the press as a unit was fairly equitable. In the absence of machine work both composition and presswork were slow, and had a more nearly equal rate of speed than now. After 1618 the masters attempted to enforce the limitation of apprentices as against each other. They feared the competition of the man who succeeded in getting into his shop a supply of cheap help which enabled him to cut prices, consequently the journeymen no longer appear as parties to this dispute.

During the whole period there were complaints that the apprenticeship regulations were not enforced and that some of the masters insisted upon taking more than the proper number of apprentices and taking them with less than the proper qualifications. This seems to have been a very real difficulty and one which was never entirely overcome. The temptation to obtain cheap labor, regardless of the welfare of either the apprentice or the industry, was too great, and many printers found it impossible to resist it, especially as during the latter part of this period the conditions in the industry became very bad and it was almost impossible to make any money at it.

Throughout this period, especially after 1618, all regulations as to apprenticeship were relaxed in favor of the sons of masters and other persons whom the masters desired particularly to favor. One of the most significant and far-reaching of the regulations of the printing trade was that which admitted the sons of masters directly to membership without any previous training. We shall discuss this a little more fully later.

Laborers

The class of workmen called laborers constituted a source of one of the greatest difficulties and abuses in the industry, especially during the seventeenth century.

At this period there were no restrictions on their employment, or at least none that were successfully enforced. After that period they were less freely employed. They were ignorant or unskilled workmen incapable of becoming journeymen. It was into this class that the apprentices dropped who were employed without sufficient previous education, more especially those who were ignorant in Greek and Latin. The class was further made up of apprentices who had not finished their time, workmen who proved incompetent to hold journeymen's positions, and men who could do rough work but had never been apprentices. Obviously there was a good deal of work which these men could do. Part of it was work which would otherwise be done by apprentices, part work which would otherwise be done by journeymen. The unrestricted hiring of these men limited the number of journeymen's positions, reduced wages, lowered standards, and was in every way detrimental to the industry.

Journeymen

In the printing industry the journeyman was not the same as the master. In other industries after the apprentice had finished his time and qualified by submitting a piece of work of approved standard, he became a master workman. He was made free of the guild and ordinarily set up in business for himself. Theoretically a somewhat similar condition prevailed in the printing trade. Before the reorganization of 1618 and the consequent restriction of mastership the apprentice became a master workman when he had completed his time, and was at liberty to set up for himself if he so desired.

After the reorganization the apprentice after having finished his time became a journeyman in the shop to which he had been apprenticed. Originally he was restricted to that shop. He was then required to serve as a journeyman from two to four years. At the expiration of that period he passed a theoretical and

practical examination. This covered his proficiency in the languages and other academic subjects required and the submission of a piece of completed work. He was also obliged to submit a certificate of character covering the requirements of apprenticeship and testifying as to his conduct while an apprentice.

The question of his admission to the Community was then voted upon by the syndics, and if he was found qualified and admitted he was formally received into the Community at a public meeting at which were present the syndics and the elders of the Community. He was then sworn in as a member of the Community by the Lieutenant-General of Police. Before being sworn in, however, he was required to pay certain fees. Originally these fees were small, but they afterward became very large.

As a matter of fact, very few journeymen became masters. The heavy fees in themselves were almost prohibitive, but the greatest obstacle was the difficulty about raising the necessary capital. No other business at that time required so heavy an outlay for equipment, material, and labor before any return whatever could be realized. The equipment was very expensive and there were no small jobs such as are found in modern commercial offices, especially those of the less pretentious type, to keep the plant going. The printer was obliged to go to the entire expense for material and labor involved in getting out an edition of a book before he could begin to get any returns from it. Sometimes he knew where he could sell the book (Caxton seems to have been particularly successful in this regard), but more often he did not know. There is in existence a letter written by Sweynheym and Pannartz to the Pope asking him for assistance. They set forth their case by saying that they have sunk a great deal of money in procuring equipment and printing books which have sold slowly. They complain that they have a large house full of books but with nothing in it to eat, and beg that he will either assist them in the

sale of their books or tide them over until they can find a market.

These conditions tended to keep the journeymen permanently in that position and to confine the masters to those who came into the business by inheritance or marriage. The printing industry has thus the unfortunate prominence of being the leading influence in breaking up the old unities of industry and bringing about the modern industrial system. It was the first industry in which there was developed a distinct class of masters who were not and never had been workmen, and in which the workman could become a master only under unusual circumstances. The sharp division of industry into employers and employed with antagonistic interests and divergent aims begins here.

The hours of labor in the printing industry were very long. Throughout France they averaged about fourteen hours a day, and similar conditions appear to have prevailed elsewhere. As already indicated, a certain amount of product, particularly on the press, was considered to be a fair day's work. In 1572 the 3350 sheets per day required of a pressman at Lyons compelled him to work from two o'clock in the morning to eight or nine in the evening without leaving the shop. This appears from evidence submitted in litigation. Printers were boarded and generally lodged by their employers. Plantin's establishment, still in existence in Amsterdam, shows living quarters for all of the workmen who were employed in the plant. They were given their meals in the shop and were permitted to send the apprentices out for wine or beer, which they drank in considerable quantities. The men themselves objected to going out for their food, although they often complained of the quality of that furnished. Their objection was based upon the fact that they so depended upon each other for their work that if men went out, especially if they overstayed their time, they would be likely to hold up each other's work and make it impossible to complete the required task of the day

even in the very liberal time allowance which was then regarded as reasonable.

It is not to be wondered at that the long hours, close confinement, and hard work encouraged the drinking habits which were proverbial among printers. The natural result of so much drinking was a good deal of disorder and violence, especially on holidays. There is no reason to suppose, however, that printers as a class were worse than other workmen of their day and generation. They were much superior in education and they were recognized as being of higher social condition. They were exempt from many of the legal requirements upon journeymen in other trades, and their industry was more than once recognized by royal edict as being an art or profession and not a mechanical trade. The printers were very proud of this social distinction and, as has been already stated, emphasized their claim to it by wearing swords, which in those days was the mark of the gentleman or professional man.

The hard work and long hours had two compensations; one partial, the other very real. The first, which printing shared with other industries, was the great number of holidays. The shops did not work on Sundays or feast days. Under modern conditions there are slightly more than 300 working days in the year, taking out Sundays and holidays and making no allowance for illness or voluntary absence. In the period with which we are dealing there were only from 230 to 240 working days in the year; that is to say, there were 60 or 70 more holidays than we now have. Probably shorter hours and more days of work would have been better for all concerned. The other compensation was the very high rate of wages. To state the printer's wages of that time in terms of money would carry very little information, partly because of the difference in coinage and partly because of the difference in the purchasing power of money. The really enlightening fact is that the wages of a printer were from two

to three times those of journeymen in the other skilled trades. Actual wages were fixed by the operation of the law of supply and demand and by the skill of the individual workman. There was what we should call today a "scale" fixed either by custom or by law. The scale, however, instead of being a minimum, as now, was a maximum, the variations being below instead of above it.

Unfortunately there was a great deal of unemployment, owing to the prevalence of a form of work which will be presently described. This unemployment was not only a serious evil in itself, but it led to competition among workmen, who were often willing to work for less than the going rate rather than to go idle. Another tendency toward the lowering of wages was the competition in the book trade caused by literary piracy and the work of printers from the smaller towns or even outside countries who could do work cheaper than it could be done in the larger cities. For example, in the absence of copyright a printer might go to the expense of getting out an edition of an important work only to have a rival buy one of his copies and throw into the market an edition at a price based on the cost of manufacture only, while it is obvious that even if the competition were based on the cost of manufacture the printer from Lyons could undersell the printer from Paris because his presses turned out 700 more sheets a day, an advantage of 25 per cent.

All this competition had a tendency to reduce selling prices and to drive down the workman's pay. It was for these reasons that the employers were so anxious to use laborers instead of journeymen, and apprentices instead of either. All these depressing tendencies had full sway under the curiously inverted scale system which made the scale a maximum instead of a minimum.

Journeymen were divided into two classes, day workers and piece workers. The day worker was engaged under an annual contract which covered his salary, his board, and usually his lodging. In the

printing trade these contracts were written after 1618. In the other industries they were not written, although verbal contracts were common to all industries.

In some cases these bargains were collective; that is to say, they were made between the Community and the journeymen's organization soon to be described. Wherever possible, however, the masters prevented the organization of the journeymen and compelled the men to resort to individual bargaining.

The piece workers were men who were engaged for some particular contract or job which the master had in hand. Whenever an important piece of work was undertaken a number of extra men, depending upon the equipment and the time in which it was desired to do the job, were employed. Day workers and men employed for another job were supposed not to be put on and no additional men were to be employed for it, unless some of the original group dropped out. The men were supposed to know how long the job would last and were supposed not to be discharged without eight days' notice. These men were paid by the day and were fed and sometimes lodged like the day workmen.

The workmen constantly complained that in practice they were greatly abused under this system. They claimed that they were discharged without notice, that day men were put to work on their jobs, and that additional men were hired, shortening the period of their occupation. This manipulation of the job was a frequent device of the masters in order to finish a piece of work before a holiday, especially when a Sunday and a holiday and even two holidays came together, as was not infrequently the case with the great number of holidays then observed. By hurrying up the job and finishing it before the holiday the master could avoid feeding the men over the holiday. Under ordinary circumstances he was supposed to feed his men, whether day workers or piece workers, throughout the period of their employment, whether

or not he paid them on holidays. The result of this system was that a very large proportion, probably a large majority, of the printers had no regular employment, working only at such job work as they could from time to time pick up.

The journeymen were graded as first- and second-class workmen and foremen. The first-class workman was a sort of assistant foreman. He was employed upon the more difficult work or aided the foreman in the discharge of his duties. The second-class was the ordinary workman, comparable today to a man who would be earning the union scale with very little prospect of ever getting any more.

The two departments of composition and presswork were recognized then as now. Just as at present, there was keen rivalry between compositors and pressmen, each claiming that his was the superior art and required the greater skill.

In the composing room there were three subdivisions—compositors, stonehands and make-up men, and distributors. These last appear to have been employed on that particular work exclusively. There were no divisions in the press room. As has been pointed out, two men were employed on the press, one on the ink balls and the other on the lever, but these were not separate occupations as the two men exchanged positions every hour.

The foreman was a man capable of oversight of all processes carried on in the plant. The foremanship was not divided as it now is between the foreman of the composing room and the foreman of the press room. These functions were discharged by first-class workmen under the supervision of the foreman. The foreman was also a proofreader, at least in part. He corrected the first proofs although they were afterwards corrected by the author and sometimes by the master or an editor in his employ. It was necessary, therefore, that the foreman should be not only a first-class workman but an accomplished scholar. He had to be thoroughly

versed in his own language and highly trained in Latin and Greek or any other language in which books were printed in the plant. He was obliged also to be thoroughly familiar with theological, philosophical, or scientific terms, or any other special terms required for any particular kind of printing which the plant undertook.

When the workman became too old and infirm to hold his place or his eyesight failed there were several sources of at least partial support open to him if his family was not in a condition to support him. Some of these old workmen were licensed by the syndics of the Community to peddle tracts, almanacs, broadside sheets of ballads and notices, and other things which might be called the small wares of the printing trade. Some of them did a sort of junk business in old paper and parchments. In some places there were asylums for aged printers where a few found entrance. Others became pensioners on the Community. The Community in France and similar organizations elsewhere appear to have had funds especially for this purpose and to have used some of their current funds for charity. Other old men were allowed to make the rounds of the shops, particularly those in which they had been employed, taking a few coppers from their younger and more fortunate fellow workmen. There seems to have been a sort of comradeship among the printers which made these old fellows welcome as they made their periodical rounds for help.

The Master

The master has perhaps been sufficiently described as we went along. He was the capitalist who carried on the business. In the great days of Jenson and Aldus and the Estiennes he was often, himself, his own foreman and best journeyman. We have seen, however, how he gradually came to be in many cases a business man with little or no practical knowledge of the business.

In the early days of printing the masters seem to have been more prosperous than they were later. Godart and Merlin, of Paris, in 1538 employed 200 men. Such printers as these were rich and prosperous and held in high esteem by their fellow citizens. We have seen, however, that some of the greatest of the printers were constantly struggling with financial difficulties. The reorganization of 1618 did not seem to have the effect upon the prosperity of the masters which might have been expected. As we have seen, there was a cut-throat competition and even after the reorganization of the Community and the restrictions of master-ship governmental control had a tendency to grow more and more burdensome while the market for their wares increased but slowly. It is said that in 1700 there were not two printers in Paris who were worth 25,000 francs or \$5000. In 1700, \$5000 was worth two or three times that amount now, but even so the fact stated shows the prostration of the industry.

CHAPTER IX

RELATIONS BETWEEN EMPLOYER AND EMPLOYED

THE printing industry has always been liable to friction between the employers and the employed. We have already made reference from time to time to strikes and labor disputes, going back to the very beginnings of the industry. Previous to the reorganization of 1618 the workmen generally had recourse to strikes for the settlement of disputes and the masters in turn appealed to the civil authorities. In conformity with the ideas of those days the authorities intervened, if at all, to suppress the strike. The idea of authority was very strong at that period and rebellion or disobedience on the part of laborers was regarded as little less than sedition or treason. Social lines were sharply drawn and every attempt possible was made to secure and maintain the supremacy of those in authority, whether that authority were civil, ecclesiastical, or industrial.

After the reorganization of 1618, however, the strike as a means of settlement was rarely resorted to until revived in modern times. The very organization of the industry made it amenable to authority and made it possible to settle disputes by legal processes. Accordingly, we find that both masters and journeymen presented their cases before the courts or the executive officers having authority and endeavored to gain their points by means of laws or edicts. The journeymen on the whole were more successful by this method than they had previously been, although the points of dispute were never permanently settled.

The organization of the Community united the masters, but the attempts of the journeymen to unite were met with constant opposition and were frequently prohibited by law. The germ of the journeymen's

organization was the chapel. Originally the chapel was a group of workmen engaged on the same job and consequently dependent upon each other for its success and for the regular progress of the work. The origin of the name is somewhat in doubt, but it probably is either derived from the fact that many of the early printing establishments were connected with monasteries, or under the patronage of the church, or from the fact that the printers were educated men, and in the 15th century educated men were generally identified with the clergy. In English law, until within a comparatively recent time, a man convicted of certain crimes could escape capital punishment if he could prove that he could read and write. This proof was held to identify him with the clergy, who were exempted from certain criminal provisions of the statutes. This process was technically known as "pleading one's clergy."

The chapel was soon extended to include in its membership all the workmen in one shop, and in this significance the name is still in use. The organization of journeymen into chapels runs back to the early days of printing. There never seems to have been any serious attempt to prevent this organization in individual shops for the reason that such an organization was highly beneficial to the masters themselves, securing the better co-ordination of related processes and hence more efficient production. In France the chapel was legally recognized in 1777, only a short time before the break-up of the old order. The chapel had certain revenues which were derived from assessments and fees which it laid upon its members and particularly from the sale of books. It was the custom to give to the chapel a certain number of copies of every book printed. These revenues appear to have been intended originally as provision for certain periodical feasts and festivals such as were common in all the guilds of the middle ages. Later they were extended to cover charity and also to provide a sort of war chest out of which the expense of litigation could be met.

The combination of these chapels or the formation of tacit understandings between them created a sort of trade union, and the combination of their funds made possible the raising of the large amounts of money necessary to employ counsel and carry on the litigations against the employers. The employers, often backed by the authorities, strove throughout this period to prevent these combinations. They understood fully the tactical value of the precept "divide and rule," and they did their best to keep the journeymen divided and at the same time to strengthen the bonds of their own union. In this, however, they were only partially successful. In spite of edicts to the contrary, the chapels, though unable to form an open, strong organization which could meet the Community on equal terms or to act with the openness and authority of the modern trade union, nevertheless maintained a very real and often effective organization through correspondence, conferences, and other methods of securing mutual agreement and common action.

In addition to the general settlements of industrial conditions which were sought by legislation, individual disputes in particular shops or localities were often settled by arbitration. The great difficulty about these arbitrations, which rendered their results unsatisfactory and was never obviated during this whole period, arose from the impossibility of agreeing on a satisfactory board of arbitrators. The masters insisted that all these arbitrations should be referred either to the courts or to the syndics. To this the journeymen seriously objected. They felt that the courts would not really arbitrate but would settle the matter by an application of the statutes, and they knew by experience that the statutes were generally construed against the journeymen wherever possible. They were on the whole very law-abiding people. They had no disposition to break the statutes, but the questions which they wanted decided were either as to the application of the statutes or as to points not covered by them.

On the other hand they felt that the syndics were entirely unqualified to act as arbitrators for the reason that they were masters and consequently interested parties. The masters were insistent whenever possible that these cases should go to the syndics, although as an alternative they were willing that they should go to the courts.

The journeymen desired that arbitration boards should be composed of masters, workmen, and citizens not connected with the industry. They maintained that only thus could the interests of all be fairly represented and an impartial arbitration secured. To this type of board the masters almost invariably objected, and they generally refused to submit to its findings. In this regard the journeymen appear to much better advantage than the masters throughout this period.

The main points of dispute have already been indicated and were on the whole not different from similar difficulties today.

First and foremost came the question of pay and food, usually together. Occasionally men were satisfied with their food but not with their pay or vice versa, but ordinarily the two went together. The man who paid badly was likely to feed badly. Another burning question was the right of combination on the part of the journeymen or, as we should say today, the question of the recognition of the union. Another point was the matter of discharge or leaving without notice. The grievance arising from discharge without notice has already been discussed. The masters complained that the men would leave without notice and so render it impossible for them to complete their jobs according to contract. This was one of the evils attendant on the piece system which has already been described. On the one hand the masters tried to manipulate it by hiring extra men and the like so as to increase their profits, while on the other hand workmen facing the danger of a period of unemployment would leave a job

unfinished if they could get employment on another job which promised several weeks or even months of work.

Another fruitful cause of difference was tickets of leave or cards of dismissal. When a man left a job he was supposed to be given a card which identified him, told where he had been employed, what he did there, how well he did it, and what his conduct had been in the shop. He was supposed to show this card before obtaining employment. The workmen complained that these cards were withheld or improperly filled out for personal or other unworthy reasons. Sometimes masters were very particular about giving and demanding these cards. At other times they were very lax in both these regards and the consequence was that the card system was a source of constant annoyance to all concerned.

The complaint was also made by journeymen that members of the Community maintained a black-list, and if a journeyman offended a single member of the Community or fell into disfavor in a single shop he might be placed on this black-list and find it impossible to obtain employment.

Of course, there were many other questions which arose from time to time but these were the particular causes of difficulty which we find constantly recurring, just as the questions of pay, hours, recognition of the union, and handling of non-union material constantly recur today.

A fairly careful study of the conditions of this period shows that according to our modern ideas the journeyman generally appear to better advantage than the masters. There is no question, of course, that there were unreasonable demands and that individual journeymen or even groups of journeymen behaved at times in objectionable ways. On the whole, however, the effort of the journeymen of this period seems to have been only to obtain fair treatment and a reasonable recognition of their rights. They especially

desired to be treated as men and to confer on equal terms with their employers instead of being treated as inferior beings bound to accept without protest what was handed down to them. It must be remembered that they were far more highly educated than the workers in any other industry and that they had been officially recognized many times as being in a class apart from the ordinary workmen. They appear to have attempted only to secure in the industry the same recognition which they legally enjoyed socially. While they did attempt to have a voice in the fixing of wages and hours there is very little evidence of any attempt to enforce upon the shops the observance of rules and regulations made by themselves. The masters on the other hand had those ancient ideas of authority which have already been mentioned. They were not willing that their employees should rise above the level of other workers and they were not willing to recognize them as men entitled to fair consideration, to say nothing of equal rights. They lived in the days of serfdom and they took their position as masters quite seriously and quite literally. This opposition in spirit between the masters who, by their wealth, their education, and their social position were associated with the upper classes and imbued with all of their ancient pride, and the men who, themselves educated and imbued with a spirit of progress and a desire for freedom, were attempting to rise above the condition of serfdom in which the laborers of that age were commonly held was the real root of the struggles in the medieval printing trade. The purely industrial questions involved were the occasions rather than the causes of strife.

The end of the old regime is marked in France by the date 1789. This date marks the beginning of the French Revolution when great masses of medieval statutes were swept from the statute books, including all those which regulated the trade of printing. The Community, censorship, licenses to print, and all the

edicts regulating conditions in the industry went by the board together. The French Revolution, however, was only an incident of a change which was coming over the thinking of the whole world. A new condition had been growing up under the old forms and the time had come when the old forms had to break to make way for the new life. They broke in the most dramatic and tragic fashion in France and therefore we think and speak of this event as the French Revolution, but the change took place elsewhere in as real though a less striking manner.

One of the features of this change was the birth of the newspaper and an enormous production of pamphlets and other minor literature. There had been newspapers and periodicals for a long time before, but the ferment of men's minds which began in the middle of the eighteenth century naturally caused a great production of printed matter and a demand that it should be produced very quickly. Much of this printed matter was of a sort forbidden by the old laws and regulations. The greater part of it, being produced under conditions of haste inconsistent with good workmanship and under a demand for cheapness also inconsistent with good workmanship, was of a very poor quality. The industry was disordered by a great increase in the number of shops, particularly shops of a poorer character. At first the workmen profited greatly, but as is always the case conditions gradually settled back to a normal state.

The general history of printing may be left at this point. From this time on the conditions with which we are familiar are coming into shape. The old day with its old conditions has gone. We need to know the history of these old times in order that we may understand the records and experiences of the early day. The later conditions we understand from our own surroundings. The periodical literature which forms so large a part of the output of the press has fairly come to life by the end of the eighteenth century. Com-

mercial printing, which is now entering upon so positive a career of usefulness and importance, is about to begin. The invention of the Stanhope press about 1800 is the first of that long series of inventions which have made possible the printing establishments of today and their wonderful product. These things are elsewhere treated. Here we say good-bye to our elder brothers of the home-made type, the ink balls, and the hand press.

Supplementary Reading

The material bearing on the economic history of printing is very scattered. So far as the present writer is aware there is no book on the subject in English. The nearest approach to such a treatment will perhaps be found in the second volume of Mr. George Haven Putnam's excellent book *Books and Their Makers in the Middle Ages*. Some information may be obtained from Mr. DeVinne's *Invention of Printing; Notable Printers of Italy During the Fifteenth Century*; and *Christopher Plantin and the Plantin-Moretus Museum at Antwerp*. The "Plantin" is a publication of the Grolier Club, but may be found in substance in *The Century* for June, 1888. Some very excellent historical articles have been published in recent years in *The Inland Printer* by Mr. Henry L. Bullen and Mr. John Rittenour. The student will do well to examine the files of this and other leading trade journals for some years back and to consult the local librarian for such material as may be found in libraries.

SUGGESTIONS TO STUDENTS AND INSTRUCTORS

THE following questions, based on the contents of this pamphlet, are intended to serve (1) as a guide to the study of the text, (2) as an aid to the student in putting the information contained into definite statements without actually memorizing the text, (3) as a means of securing from the student a reproduction of the information in his own words.

A careful following of the questions by the reader will insure full acquaintance with every part of the text, avoiding the accidental omission of what might be of value. These primers are so condensed that nothing should be omitted.

In teaching from these books it is very important that these questions and such others as may occur to the teacher should be made the basis of frequent written work and of final examinations.

The importance of written work cannot be overstated. It not only assures knowledge of material but the power to express that knowledge correctly and in good form.

If this written work can be submitted to the teacher in printed form it will be doubly useful.

QUESTIONS.

1. How were industries carried on in the days of Gutenberg?
2. What was the general relation between an apprentice and a master?
3. What was a guild, and what did it do?
4. Did printing fit into this scheme, and why?
5. How was printing regulated, and why?
6. What was the effect of the invention of printing on the manuscript makers?
7. What did the copyists do?
8. What did the illuminators do?
9. What was the attitude of the authorities?
10. What king is especially noted as a patron of printing, and what were some of the things he did?
11. How did he deal with labor troubles in the printing industry?
12. What important edict was issued by King Henry III of France, and on what grounds?
13. How did the early printers deal with typographical errors?

14. How did a French king endeavor to deal with this difficulty, and with what result?
15. What important event took place in 1618?
16. Give the general points in the regulations of 1686.
17. What additional regulations were made by Louis XVI?
18. What happened in 1789, and what was the result?
19. What are some of the differences between the product of a print shop and that of the ordinary factory?
20. What were some of the problems arising out of this difference?
21. What was the 15th century substitute for copyright and patents? Describe it.
22. What did trades do to protect themselves if they could not get the form of protection just described?
23. Why did the printer especially need some kind of protection?
24. Discuss briefly under four heads the system of protection in use in Venice.
25. What were the practical defects of this system?
26. What kind of books were printed in Germany for the first fifty years?
27. What evil practice did Fust begin, and why did he think it was right?
28. Was there a profession of authorship, and why?
29. How did Germany undertake to protect printers?
30. Give a brief sketch of the political organization of Germany in the 15th century.
31. What effect did this have on the protection of printers?
32. What did the printers do about it?
33. What did printers' privileges cover in Germany?
34. How did France deal with the question of printers' privileges, and what were some of the peculiarities of French law?
35. What moral and political danger was perceived shortly after the invention of printing?

36. How was it dealt with by church and state?
37. What action was taken by Pope Innocent VIII?
38. What was the result in Venice?
39. What had the Inquisition to do with printing?
40. What is the Index Expurgatorius? Why was it drawn up?
41. What were the general lines of legislation in Venice regarding censorship?
42. What was done in 1549, and why?
43. What was the purpose of the guild of printers and booksellers?
44. What were the requirements in 1671 for the publishing of a book in Venice?
45. How did censorship work in Germany, and why?
46. What was the result of Pope Innocent's action in France?
47. By whom was censorship exercised in France?
48. What was the result of this system, and how was it improved?
49. Give some features of the press laws of France, and state the penalties.
50. What was the effect of this legislation, and how were the worst effects avoided?
51. What was the end of it all?
52. How did authorship come to be recognized as a profession?
53. How did the idea arise that the author had the right to control his work?
54. What was the early German idea of copyright as illustrated by the experiences of Luther?
55. What two ideas gradually came into prominence at this time with regard to literary property?
56. When and how did copyright come into general existence?
57. When was international copyright recognized?
58. What is the record of the United States with regard to international copyright?
59. What is the outstanding factor in the industrial life of the Middle Ages?

60. Describe it briefly.
61. What conditions made it possible?
62. State and discuss briefly the five general principles which governed it.
63. What was its relation to the state and to religion?
64. What was the best period of this organization?
65. When did it decline?
66. Give three reasons for this decline.
67. Why was the printing industry an important factor in this decline?
68. How were wages and prices fixed in the early Middle Ages, and why?
69. What happened after the discovery of America?
70. What was the effect on prices and what the effect on wages?
71. What was the result on the social and industrial organization?
72. How did printing relate itself to the industrial system of the sixteenth century?
73. What was the result of this relation?
74. What difficulties arose, and how were they met?
75. What was the effect of the legislation of 1618?
76. Who composed the Community of Printers?
77. Who were the syndics? How were they elected, and for what purpose?
78. What advantages were gained by the new organization?
79. What was the relation between printers and book-sellers, and why?
80. What did the old-time printer have to do?
81. What was the early paper like?
82. Describe the types in use at this period.
83. Describe the presses in use at this period.
84. Describe the ink of this period, and tell how it was spread.
85. How were compositors paid?
86. What did the old-time pressman have to do?
87. Describe the old method of two-color printing.

88. How were the printed sheets treated when they came from the press?
89. How were pressmen paid?
90. What was the custom with regard to proofreading?
91. Describe the system of cost finding and estimating of this period.
92. What four different classes of workmen are enumerated?
93. What was an apprentice?
94. What were the qualifications necessary to apprenticeship?
95. What were the conditions of an apprenticeship agreement?
96. How were these agreements abused by both sides?
97. Describe the work of an apprentice.
98. How many apprentices were allowed?
99. What can you say about the enforcement of these conditions?
100. Who were the laborers, and how did they affect the industry?
101. How did an apprentice come to be a journeyman?
102. How did the journeyman become a master?
103. Did journeymen commonly become masters, and why?
104. What were the hours of labor at this period?
105. How did the journeymen live?
106. What sort of men were they?
107. What two compensations did they have for the hard conditions of the industry?
108. What influences tended to lower wages?
109. How were journeymen divided?
110. What were the conditions of employment of each?
111. What were the difficulties of the second class?
112. How were journeymen graded?
113. What division of labor existed in the composing room, and what in the press room?
114. Describe the foreman of this period.
115. What happened to the old or disabled workmen?
116. What was the place of the master?

117. Was the general condition of the industry good or bad, and why?
118. What were the relations between the masters and journeymen before 1618?
119. What were these relations after 1618?
120. What was a chapel?
121. What difficulties did the organization of journeymen have to meet?
122. Describe briefly the growth of organization among the journeymen.
123. How did masters desire to settle their disputes with the journeymen, and why?
124. How did the journeymen desire to settle them, and why?
125. What were the principle causes of dispute?
126. According to modern ideas, which party of these disputes generally appears to the better advantage, and why?
127. What was the French Revolution?
128. How did the French Revolution contribute to the coming in of modern conditions in the printing industry?

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THE following list of publications, comprising the **TYPOGRAPHIC TECHNICAL SERIES FOR APPRENTICES**, has been prepared under the supervision of the Committee on Education of the United Typothetae of America for use in trade classes, in courses of printing instruction, and by individuals.

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