

FROM SCRIVENERS TO TYPEWRITERS

DOCUMENT PRODUCTION IN THE NINETEENTH-CENTURY LAW OFFICE

M.H. Hoeflich

a few short years, written communications have been revolutionized by virtue of the introduction of e-mail, Twitter, and Facebook, to name but a few. Each new mode of communication has also changed the ways in which we write. Multiple articles have been written on the ways in which e-mail, text messaging, and Twitter have literally changed not only commonly accepted principles of grammar and orthography, but also the very ways in which we write and think about communications. The communications revolution of the past few decades has also radically changed the way lawyers write, communicate, and produce documents. To name just a few examples, the new media have required radical changes in the Rules of Professional Conduct, in the rules of discovery, and, indeed, in the basic everyday ways in which lawyers practice their profession. Thus, it is rather surprising that so few legal historians have begun to consider how changes in

M.H. Hoeflich is John H. & John M. Kane Distinguished Professor of Law at the University of Kansas School of Law. A version of this article was presented at the Boston College Law School Legal History Roundtable in April 2013. Another will be a chapter in his forthcoming book, The BUSINESS OF LAW IN NINETEENTH CENTURY AMERICA.

See, e.g., ABA Commission on Ethics, *Ethics 20/20*; the various publications of the Sedona Conference on e-discovery.

basic office practices in the nineteenth century, such as the shift from the use of scriveners to typewriters and other mechanical means of document production and reproduction, affected both law practice and the substance of the law itself. Perhaps the most thoughtful commentator on this subject, Professor Cornelia Vismann of the Max Planck Institute in Frankfurt, has put this most strongly:

Legal studies lack any reflection on their tools. Of course, lawyers consult files to recapitulate past events. But they are of no interest in themselves, and they certainly do not turn into objects of scientific investigation.²

In this paper, I wish to follow in Professor Vismann's path and examine the history of precisely how American lawyers went about the business of document production and how changes in this process changed both the legal profession, widely defined, and the law itself.

THE AMERICAN LAW OFFICE AT THE TURN OF THE NINETEENTH CENTURY

In order to understand the major changes that occurred in the practice of law in the United States in the nineteenth century it is useful to begin by describing what a law office might have looked like and how it functioned at the beginning of the period. The first thing to note is that "law office technology" around 1800 was not terribly much different from law office technology around 1700. Essentially, a lawyer's office would have been one or two rooms equipped with a desk, some bookshelves to contain the lawyer's working library, a scrivener's desk, some chairs, and some form of lighting so that those in the office could work at night. The lawyer's office at this time held very little specialized material other than law books and would to most observers have appeared little different from that of a merchant or banker. As to personnel, there would have been the lawyer, of course, a scrivener, and, perhaps, an apprentice. There might also have been an "office-boy" who would do

² C. Vismann, Files: Law & Media Technology, trans. Geoffrey Winthrop-Young (2008), p. 11.

such things as sweep up and act as a messenger, and who might well aspire to be a scrivener or even a lawyer some day. The heart of a nineteenth-century law office was document production, storage, and retrieval. And at the heart of this was the scrivener.

To understand the importance and role of the scrivener in the that place and time, it is necessary, first, to understand the allocation of labor in the office. The lawyer or lawyers — lawyers would often work in partnerships of two or three — was the keeper of legal knowledge. It was the lawyer who would meet with and advise clients. It was the lawyer who would draft most correspondence. It was the lawyer or, occasionally, an apprentice, who would do legal research. It was the lawyer who would go to trial, if necessary. And it was the lawyer who would draft original documents.

The scrivener did not have formal legal training. His role to begin with was that of a copyist. We may well remember that in Melville's *Bartleby*, there were two men referred to as "copyists": Turkey and Nippers. Their primary role, as was true of all legal scriveners, was to produce "fair copies" of documents, i.e., copies that faithfully and accurately reproduced the originals. In the office Melville portrayed, the lawyer in charge had complaints about both his scriveners. Turkey, a man of about sixty beginning to show the signs of age, had a tendency to make "blots" in his copies in the afternoons, i.e., he would have to make unsightly corrections. Nippers, a younger man of twenty-five, produced fair copies as was his job, but he often also attempted to usurp the lawyer's role by drafting original documents, a task for which he was neither licensed nor trained. The two — and later when Bartleby joined the staff, three — scriveners did work independently:

It is, of course, an indispensable part of a scrivener's business to verify the accuracy of his copy, word by word. Where there are two or more scriveners in an office, they assist each other in this examination, one reading from the copy, the other holding the original. It is a very dull, wearisome, and lethargic affair.³

³ H. Melville, "Bartleby the Scrivener," in *Melville's Short Novels*, ed. D. McCall (2002), p. 10.

Melville encapsulates in this passage a key element of the scrivener's task: not simply copying but producing an accurate copy of the original document. Of course, such accurate copies were — as they are today — crucial in a law practice, for these documents would have legal validity and an error in a document could have a catastrophic negative impact. A lawyer's reputation and success in his profession depended upon the skills of his scriveners. Today, of course, the role of proofreader and verifier of document accuracy is most often played by an associate lawyer, but this is an innovation of the twentieth century.

One might well ask why, given the importance of producing "fair" copies of legal documents, nineteenth-century lawyers delegated this task to scriveners rather than doing it themselves. The answer lies in the economic structure of the nineteenth-century law practice. In modern terms, nineteenth-century lawyers used "transactional" billing. The economics of transactional billing are very different from those of hourly billing. A modern lawyer who bills by the hour has no incentive to be efficient. Indeed, the economic success of a modern law firm that uses hourly billing depends upon the ability to maximize billable hours. Thus, in a modern firm, the delegation of the task of proofreading to associate lawyers who bill out at substantial hourly rates improves the firm's bottom line. In the nineteenth century, when a lawyer charged a fixed fee for a particular client task, the economic incentive was to work as efficiently as possible. By delegating tasks to scriveners the lawyer was himself free to take on additional work and, at the same time, ensure that document production was accomplished as inexpensively as possible. Having a scrivener who could produce fair copies quickly and cheaply could produce a substantial profit for the lawyer.

Indeed, the more cheaply documents could be produced, the more profitable a law practice would be. Even in the nineteenth century, lawyers looked to technology to help them achieve maximum profitability.

The first workable and commercially successful mechanical copying device was a press patented by the Scots inventor James Watt in 1780.⁴

⁴ The information on the development of mechanical copiers described here is

This press was intended primarily for copying letters. Watt's device required that the document to be copied be written using a specially formulated ink. Once written, the document to be copied would be put into a rolling iron press with thin papers and put under pressure for a period of time. Once removed from the press, the original document and the copies resulting would be ready for use. Although it was never widely adopted by lawyers in the United States, Thomas Jefferson owned several of the devices, as did George Washington. Jefferson also pushed to equip United States foreign diplomatic missions with them after 1795 when Watt developed a portable version. It may well have been one of these Watt presses that was listed for sale as "a copying press" in the 1828 auction catalogue of the law library of Barney Smith in Boston. ⁵

By the time the Civil War had ended in the United States, the technology of document reproduction had developed significantly. By the 1830s some American manufacturers had begun to produce flat-bed cast-iron copying presses. These were, in general, far easier to use and could reproduce a greater variety of documents than Watt's rolling press. In 1856 German chemists began to use aniline dyes in the manufacture of everyday writing ink.6 This innovation was of great importance for copying machines, because aniline dyes produced inks that were more amenable to being used to make copies, particularly multiple copies. Prior to their introduction, copying machines needed to use specially produced and expensive inks. Once aniline dyes became a standard component of writing inks, any document produced using them was suitable for copying. In 1868 extremely thin but durable tissue papers began to be imported into the United States. These, combined with the new aniline dye inks, meant that copy machines would become much more common in offices, including law offices, in the United States.

It would appear, from surviving mechanically reproduced copies, that the most common form of copying in nineteenth-century

taken from B. Rhodes & W.W. Streeter, *Before Photocopying* (1999), and S.A. Bedini, *Thomas Jefferson and His Copying Machines* (1984).

⁵ Catalogue of the Library of Barney Smith, Esq. (Boston, 1828).

⁶ Rhodes & Streeter, *Before Photocopying*, pp. 38-39.

law offices was that utilizing a flat-bed cast-iron copy press used in conjunction with a "copybook." Copybooks had been used by lawyers for some time. Generally, a scrivener would copy correspondence directly into a bound volume. Copybooks designed to be used with mechanical copying devices were bound collections of thin tissue copy paper. When a copy was made, the original document would be inserted between two pages in the copybook, moistened, and placed in the press under pressure. When the process was complete an exact mirror-image copy of the original was imprinted onto a sheet of the copybook. My research reveals that very few legal documents were copied in this way. Instead, copybooks tended to be used primarily for letters sent out by the law office. One may assume that this form was adopted because prior to the use of mechanical copiers, handwritten copies of legal correspondence were generally kept in bound volumes arranged chronologically. Thus, with the introduction of mechanical copying involving copybooks (albeit using different paper), lawyers could simply add the new type of copybooks to their already existing handwritten volumes. This preservation of form is both unsurprising and indicative of the relative conservatism of law office practices so characteristic of the legal profession then – and now.

One interesting aspect of the use of copybooks to preserve law of-fice correspondence concerns the ability of lawyers to retrieve copied and stored documents. As I will discuss later, nineteenth-century document storage and retrieval in law offices was relatively unsophisticated and worked primarily because the volume of document production and storage was generally small. The use of copybooks served as a major step forward in storage and retrieval. Generally, a single book would contain the correspondence from an office for a set, continuous period. The pages of the book itself were numbered. This led to the adoption of a simple and effective indexing system:

The last name of the correspondent to whom the copied letter was addressed would be recorded in the index, along with a brief indication of where the copy was located in the book.⁷

⁷ Ibid., p. 65.

One may speculate that lawyers felt comfortable using these index books, in part, because they already often used such indexed books to preserve the fruits of their legal research. These volumes, known as "commonplace books," generally were arranged alphabetically by subject, an arrangement first proposed by John Locke in a 1706 essay.⁸

The efficient production of documents in the nineteenth-century law office was also significantly improved by the use of preprinted blank and partially blank legal forms and formbooks.9 The more time a lawyer devoted to drafting new documents for a particular client, the less time he would have available to do different work. Since his fee was the same for the task regardless of how long he might take, any timesaving device would increase the potential profitability of his practice. Thus, nineteenth-century American lawyers used existing documents whenever they could. Collections of documents, often titled "precedents," had been available to lawyers both in England and the United States for several centuries. The documents available in these compilations ranged across wide swaths of a typical lawyer's practice areas and covered litigation documents, property-related documents, contracts, testamentary documents, and much more. These books were readily available both new and used from virtually every law bookseller. In addition, American lawyers had available to them collections of state-specific documents in book form. These were frequently updated by the issuance of new editions and often were supervised by a "leading member" of the local bar. By using the documents available in book form a lawyer could simply select the appropriate document for the task at hand, have a rough copy made, edit it to fit the specific client and jurisdiction involved, and have his scrivener then make a fair copy.

By the latter part of the eighteenth century, individual preprinted and partially printed "law blanks" were also widely available in the United States from law booksellers and stationers. The advantage to the lawyer in using these individual "law blanks" was that

⁸ See M.H. Hoeflich, 'The Lawyer as Pragmatic Reader: The History of Legal Common-Placing," *Arkansas Law Review*, v. 55 (2002), p. 87.

⁹ See M.H. Hoeflich, "Law Blanks & Form Books," Green Bag 2d, v. 11, p. 89.

they would, in many cases, be more current than those compiled in a formbook. As the law changed or as new transactions came into use, booksellers could print new appropriate law blanks within days. The lag time to produce a new edition of a formbook was far greater. Purchasing individual law blanks could also be quite a bit less expensive than purchasing a formbook. Finally, by using an individual law blank, the lawyer could avoid having a rough copy made for editing. He could simply insert or have his scrivener insert the necessary details into the blank spaces on the preprinted form.

The greatest technological improvement in law office document production — and in the social and professional demography of the law office — came in the last quarter of the nineteenth century with the perfection and commercialization of the mechanical typewriter.

For centuries the primary tool for document production was the quill pen. These pens were fragile and had a limited useful life. The typical scrivener in the age of the quill pen needed several basic tools in order to write: quills, a quill cutter, ink, and ponce (a dusty powder needed to dry the ink). Quill pens, except in the hands of a skilled professional, were also difficult to use and prone to ink blots. In the early nineteenth century, several companies began to manufacture steel-nibbed pens, a great improvement upon quills. But writing by pen, whether quill or steel-nibbed, was still tedious, difficult, and slow. Thus, professions which required the efficient and cheap production of documents – such as law, journalism, and court reporting – were ripe for the introduction of a more efficient mechanical device to replace the pen. This, of course, was the type-writer.

Lawyers were intimately involved with the development of the typewriter from its earliest days. ¹⁰ William Petty received an English patent in 1647 for a primitive precursor of the mechanical typewriter. His patent application stated that his new invention would be "of great advantage to lawyers, scriveners, merchants,

¹⁰ The discussion of the development of the typewriter here is taken from B. Bliven, *The Wonderful Writing Machine* (1954), D. Wershler-Henry, *The Iron Whim* (2007), and R.N. Current, *The Typewriter and the Men Who Made It* (2007).

scholars" and others whose work required the production and reproduction of multiple documents. By the mid-1860s, more than twenty mechanical writing devices had been developed but none was commercially successful, no doubt because none of them worked well. This all changed, however, between 1867 and 1872, when two Americans, Christopher Latham Scholes and James Densmore, developed and patented what was to become the first truly workable mechanical writing device, which they called a "typewriter." Scholes was the primary inventor of the device. Densmore was the financier and promoter and, not coincidentally, a lawyer. Densmore and Scholes arranged to have Remington, a manufacturer of guns, sewing machines, and other mechanical devices in Ilion, New York, begin mass production of their typewriters. By the mid-1870s the typewriter had attained a form quite similar to what it would be for the next century.

In the first few years of production few typewriters were sold, in large part because of a financial depression in the United States. But even during the first few years of limited production and distribution court reporters were among the most important customers for typewriter manufacturers. And from the beginning, as well, they targeted the legal profession as a major consumer of the new machines. An early article in the *Milwaukee Sentinel* opined that because the typewriter could produce more documents in a shorter time than could a scrivener using a pen, the typewriter would be useful "to all who write much, especially editors, lawyers, clergymen and, above all, phonographic reporters." According to an advertisement published by Densmore, the added speed of a typewriter over writing with a pen was not inconsiderable:

The average speed of the pen is from 15 to 30 words per minute. The average speed of the Type-Writer is from 30 to 60 words per minute. 13

¹¹ Wershler-Henry, The Iron Whim, p. 35.

¹² Quoted in Current, *The Typewriter and the Men Who Made It*, p. 37.

¹³ Ibid., p. 68.



The Sholes typewriter (1873).

Within a few years, with the introduction of secretarial schools and typewriting competitions, and a growing pool of professionals trained to maximize efficient use of the new machines, speeds upwards of 100 words per minute were not unusual. For the law office, this increase in speed was nothing less than revolutionary: document production could be speed up by a factor of two to six times. Greater efficiency, in the context of transactional billing, meant significantly increased profits.

The benefits of the introduction of the typewriter were multiplied by the fact that typewriters also could be used with carbon

paper to produce multiple copies simultaneously. Carbon paper had been available since at least the beginning of the nineteenth century, but it was impractical for use with most pens because the force required to use it would generally tear the top sheet of paper. ¹⁴ Because typewriters effectively pressed on the paper almost vertically, they were perfect for use with carbon paper. This meant that simply inserting a carbon in the typewriter could produce copies without going through the difficult process of using a copy press and copybook, thereby saving additional time and expense.

The shift from scriveners - specialized professionals skilled in handwriting, proofreading, and verification of documents - to typists operating mechanical typewriters also, to some extent, increased the lawyer's authority. Professor Vissman has suggested that scriveners not only had the power to *produce* but also to *stop* the flow of documents. 15 Melville's Bartleby provides the perfect example of this. When Bartleby decides that he will no longer perform his scrivening duties because he "prefers not to," the law office comes to an absolute standstill. The lawyer has two problems. First, he must remove Bartleby from the office, but, second, he must also find a replacement for Bartleby, a task not easy of accomplishment. When the scrivener is replaced by the typist and her typewriter, the lawyer no longer faces this problem: since the typewriter is a machine, it makes no demands. As for the typist, all the evidence suggests that there were many available and thus replacing this lowerskilled worker was easier - and cheaper - than replacing a scrivener. Thus, Bartleby the human typewriter (he works indefatigably day and night at the beginning of the story) when replaced by a mechanical typewriter gives his employer far greater control over his own office and the process of document production. (Much the same as is true when today factory workers are replaced by robots.)

But the introduction of the typewriter into law did more than make law offices more efficient. It also changed the demographics of the office and, in so doing, signaled the demise of the scrivener as a

¹⁴R. Dale & R. Weaver, Machines in the Office (1993), pp. 42-43.

¹⁵ C. Vismann, Files, p. 35.

crucial member of a law office staff. Although the earliest staff to use typewriters were male (presumably scriveners who were willing to adopt the new technology), within a few decades, virtually all typists (who were also known as "typewriters") were women. Why? Contemporaries gave several reasons for the female domination of the field. First, women were thought to be better suited to using typewriters because they had a softer touch. Many believed that typewriters required a light touch, like pianos. Second, and clearly more important, was the fact that women typists were cheap. 16 Richard Current points out that while the typical weekly wage of a female typist at the end of the nineteenth century was fifteen dollars per week, a male typist commanded an average of twenty dollars per week.¹⁷ Finally, the introduction of typewriters into offices also coincided with the rise of women's movements, movements which championed the idea that women could work outside the home. The job of typist paid better than many factory jobs. Further, it was believed that women would be a civilizing element in formerly male offices. ¹⁸

The introduction of typewriters and women typists into American law offices had wide-ranging effects. First, as typists became more common the perceived need for scriveners declined. But it is important to recognize that the typical typist performed a more limited function in a law office than a scrivener. Scriveners were more than copyists. They were also proofreaders and verifiers of the accuracy of documents. Women typists were solely copyists. Therefore, as typists replaced scriveners in the late nineteenth and early twentieth centuries it was necessary to allocate the document verification function to someone else, in this case to law clerks. I would suggest

¹⁶ See A. Delgado, *The Enormous File* (1979), pp. 39-44; D. Hale, "The Woman and the Tyewriter," online at www.h-net.org/~business/bhcweb/publications/BEHprint/v008/p0076-p0088.pdf. This article discusses many of the reasons for and effects of women as "typewriters" in offices of the period; for a feminist perspective on the introduction of women into the office as "typewriters" and clerical workers, see M. Davies, *Woman's Place is at the Typewriter* (1982). I have drawn on all of these sources for the account herein.

 $^{^{\}rm 17}$ Current, The Typewriter and the Men Who Made It, p. 119.

¹⁸ Ibid., pp. 117-119.

to you that in this reallocation of function was born the beginnings of the associate attorney whose functions came to include proof-reading and verifying the accuracy of documents before they left the law office.

A second possible unintended effect of the introduction of type-writers – and with them the entry of women into law offices as typists – may have been to make it harder for women to gain wide-spread acceptance as lawyers. I suggest that it may well be that the mass introduction of women into law offices as typists may well have helped to fix within the established male profession a stereotype of women in the law office as clerical workers at roughly the same time that a few women were making the first successful efforts to gain admission to the bar.

Finally, we cannot ignore the social and moral aspects of the introduction of women typists into the formerly all-male domain of the business – including law – office. The theme of office dalliances between male managers and female typists is one of the most common in the popular culture of the 1880s through 1920s. Working women were often thought to be radical, if not "fast." The typewriter, by introducing women into the law office, also introduced sexual tension and the possibility of scandal.

Once a document was produced and sent out, if so required, lawyers still had an important task: preservation and storage and, hopefully, retrieval when necessary. Law offices throughout the nineteenth century were quite conservative in their preservation and storage practices. Preservation of legal documents — with one exception — was quite simple. Virtually all legal documents were produced on paper, usually one hundred percent cloth-based paper. The useful life of such paper runs into the hundreds, if not thousands, of years. Of course, paper documents could be damaged or destroyed by fire or water, but, if no disaster occurred, lawyers could be confident that their documents would long outlive themselves and their clients.

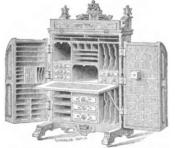
¹⁹ Ibid., pp. 117-120; Wershler-Henry, *The Iron Whim*, pp. 88-95; Bliven, *The Wonderful Writing Machine*, pp. 3-16; Delgado, *The Enormous File*, pp. 39-61. See, for a contemporary source for this, G. Allen, *The Type-Writer Girl* (1897).

Document storage and retrieval in nineteenth-century law offices was, perhaps, the most problematic of all aspects of law office practices. Traditionally, lawyers stored their non-correspondence documents on shelves, in either flat bundles or tin boxes. These are what we would technically classify as "horizontal files." Generally, all of a client's papers would be stored together, but they tended not to be arranged in any particular order or by any specific category, so retrieval of a specific document would require that the lawyer or his clerk sort through the entire mass to find one specific document. One practice made this easier: generally documents were folded and either the blank side of a document or a blank cover wrapped around the document would contain the name of the client, the nature of the document, i.e., will or deed, etc. and, often, a brief abstract of the contents. The use of tin boxes, often called "deed boxes," not only made segregation of a particular client's papers more assured, it also provided some protection against fire or water damage. The arrangement and storage of documents by client names, especially when there might be a large quantity of such documents to sort through, would appear to have been a source for some difficulty for lawyers. Examples of this can be found in lawyers' papers throughout this period.

One specialized form of document storage introduced in the mid-nineteenth century merits special mention. Roll-top desks equipped with multiple drawers and "pigeon holes" provided an alternative to tin boxes. These desks often contained several dozen compartments into which documents could be placed. Security and privacy were provided by the locking roll-top. The standard roll-top was perfected in the "Wooton Patent Desk." This masterpiece of office furniture replaced the roll-top with a design in which the entire desk opened and closed. When opened dozens of compartments were available for document storage.

²⁰ The discussion of the classification and development of filing systems here is taken from C. Vismann, *Files*, pp. 71-146, J. Yates, *Control Through Communication* (1989), and B. Kafka, *The Demon of Writing: Powers & Failures of Paperwork* (2012).

THE DESK OF THE AGE!



WOOTON'S

PATENT

Cabinet Office Secretary.

The most commodious and comprehensive desk ever presented. Now in use throughout the world. Bankers and Attorneys everywhere pronounce it invaluable. We append the following copy of a letter from Col. A. F. Rockwell, concerning a very handsome Necretary of this construction we recently sent to the White House and

which is now being used by President Arthur.

"The desk manufactured by your company for use in the Executive Mansion, is a fine piece of workman-hip, and gives satisfaction. The carving of the coronet (guard at top) is very handsome and effective."

Washington, D. C., Feb. 23d, 1882.

A. E. ROCKWELL.

WOOTON'S PATENT ROTARY DESKS.



THE "LAWYER'S OWN."

The annexed cuts represent our PATENT ROTARY DESKS, with rotating cases at each end. The principle of construction is simple and will be readily comprehended. By an ingenious arrangement the lower sections are pivoted to the framework of the body of the Desk, and made to rotate at the will of the operator. With a turn of a key these cases are at once brought forward.

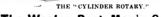
cases are at once brought forward, and the whole interior space presented to view, unobstructed by the old form of drawers or cupboards, which have so long been a source of annoyance and discomfort.

When the operator desires to close the desk, he has only to swing the cases around and fasten with the key.

The principle at once commends itself to progressive business men, and is a pronounced success. The Lawyer's Own is admirably adapted to the use of professional men of all classes.

all classes.

For full details and prices,



address,

The Wooton Desk Man'g Co., Indianapolis, Ind., U. S. A.

An advertisement for Wooten desks in McKillop, Walker & Company's "Mercantile Register of Reliable Banks and Attorneys of the United States and British Provinces, Together with the Attorneys' References" (1882).

The document storage practices described here did not make for efficient document retrieval. First, of course, correspondence was kept separate from other client papers. Second, correspondence was maintained in chronological order while the other papers tended to be kept in no order at all other than by client name. Although these storage and retrieval practices were not efficient, they worked for most lawyers who did not have large numbers of clients nor clients who produced massive amounts of paper. In essence, these practices were adequate for the small legal practices common throughout most of the nineteenth century.

The last quarter of the nineteenth century saw the market introduction of vertical filing systems in the United States. These vertical files (the most common example is the file cabinet) were a vast improvement on horizontal filing. From a lawyer's perspective, vertical files meant that documents could be arranged by matter, by client, or chronologically, or a combination thereof. Further, correspondence could be integrated with other client documents in the same file group, and the use of folders meant that adding or removing documents could be done more easily and more efficiently. By the beginning of the twentieth century, lawyers, like other professionals and merchants, were moving over to the new vertical filing systems.

One might fairly ask whether this description of document production in nineteenth-century law offices has anything other than antiquarian value — although antiquarian research should not be dismissed out of hand. The answer is that it does. Nineteenth-century law office practices, including document production and storage, were generally quite efficient and worked well within the context of small practices maintained by one or two lawyers with several assistants. When the nature of the legal profession changed in the last quarter of the nineteenth century and the inexorable rise of corporate law firms began, law firms that were required to handle larger numbers of matters and papers for large corporate clients were forced to adapt. Fortunately, the tools necessary for that process of adaption were readily at hand: the typewriter and vertical filing systems. Indeed, it seems quite clear that just as these new techniques

were being adopted by lawyers they were also being adopted by their clients. For example, vertical filing systems were adopted widely by railroads, for whom document tracking and retrieval were necessary for survival. Can it be a simple coincidence that railroads were the first major corporations to use the new, larger and more sophisticated corporate law firms? Undoubtedly, changes in corporate office practices influenced changes in their lawyers' office practices as well. I would suggest, in fact, that the technological changes that I have described here made it possible for the new corporate law firms to develop and satisfy the far more demanding needs of their clients than in the past.

Of course, these changes in technology also brought with them significant changes in the very nature of the legal profession, particularly the demise of an honorable profession, that of the scrivener, and the introduction of women as typists into formerly all-male law offices. And, thus, the modern law office was born.

