THE WOODBURY AND COMPANY STORY

BY

HAROLD D. WOODBURY

Edited by

KIMBALL R. WOODBURY
INTRODUCTION

Woodbury and Company, founded in 1879 by John C. Woodbury, WPI class of 1873, was one of Worcester’s leading graphic arts companies for one hundred and twenty three years.

Soon after graduation, John Woodbury found that his talent lay in making the artwork for wood cuts, and later, making large drawings of industrial plants. With his partner, and classmate, John Keyes, he built a satisfying business making wood cuts and these very popular “Bird’s-Eye drawings. The only method of reproducing pictures at that time was by the halftone method, which gave a quite unsatisfactory result. John Woodbury was familiar with the process of photogravure and dreamed of reproducing these drawings using this process. This is an engraving process that produced brilliant results, but was extremely difficult and expensive to produce.

In 1908 when his son John Edward Woodbury graduated from Tech, the circumstances led to the decision to place the future of the company on the production of photogravure letterheads. This involved modification of the basic process, and modifying the existing power press equipment to produce the letterheads by power. This was and extremely challenging and risky undertaking.

The company became the first company anywhere to make photogravure plates and to run letterheads successfully on a power press. This was the product on which the company developed their reputation for producing the most beautiful engraved picture letterheads in the country, and this was the basis for the success of the business for the next one hundred and twenty three years.

In the late 1960s, Harold Woodbury, the founder’s son undertook the challenge of recording the company history in his “Notes on the History of Woodbury and Company.” He added important and interesting events up though the 80s, when his son, Kimball Woodbury picked up the story and told it until the company closed in 2002.

The company is a WPI based company—the company founder, John C. Woodbury, its technical leader, John Edward Woodbury and Kimball Woodbury are all graduates of WPI, and many of the Executive team graduated from the WPI School of Industrial Management, being Kimball, John C., David, Peter Woodbury, and Earl Berry and Bill Shumway.

After the company closed, the Woodbury family gave the company archives to WPI. This included Harold Woodbury’s “Notes on the History of Woodbury and Company,” pictures and samples of the work, as well as about a hundred and twenty five Industrial Plant Drawings, all of which WPI has stored and catalogued. When this work was being done by students and library staff, two professors became interested in the story, and decided to write a History of Woodbury and Company. Prof. Kent B. Lundquist and Prof. James P. Hanlon, along with library archivist Rodney G. Obien published the History of Woodbury and Company as part of the WPI Studies Series to be added to the WPI Studies series.

At the same time, the family gave a collection of Industrial Plant Drawings, print and photographic enlargements of textile plants to the American Textile History Museum in Lowell Mass.
When Woodbury and Company, of Worcester Massachusetts closed in 2002, it had accumulated an interesting, and perhaps valuable collection of memorabilia. The family decided that because the company always had a close relationship with WPI, that it would donate the company collection to WPI.

The collection consists of the following principal items:

The most important single item is Harold Woodbury’s written “Notes on the History of Woodbury and Company”, which is augmented by comments by Kimball Woodbury covering the later years. These notes include a number of interesting photos illustrating the story.

The most impressive part of the collection is a collection of Industrial Plant Drawings. These number about one hundred. They are examples of a unique artistic illustrative style developed and perfected by John C. Woodbury. For this fact alone they are quite breathtaking. The sharp, exacting detail of the architecture, as well as the people, trains and other vehicles included is spectacular.

In addition to the value of the artistic presentation, they are a fine example of the industrial architecture of the early 20th century, as well as a display of industrial history in the area for that period.

It should be noted that the Woodburys donated a significant number of Industrial Plant Drawings of textile factories to the American Textile History Museum in Lowell Massachusetts, as they are in a special position to understand and appreciate the importance of the textile industry in our country at that time. The Woodbury Collection at the Textile Museum is available to anyone who might be interested.

There is an extensive collection of photogravure, and other letterheads, as well as prints made from Woodbury wood cuts made in the early days. (Sorry, there is not one example of a wood cut in the collection) And there are samples of other items the company produced, such as the photogravure art print of “Christ and the Doctors”, Christmas cards, bank statements, First Day Covers etc.

There is a complete collection of “Eagle’s Eyes” which records pretty well the employee activities, as well as some management comments on business activities.

It is always easy to look back and wish we’d saved lots of other items that would now be interesting, but at the time they were nothing special.
FOREWORD

I have often thought during the past few years that the story of Woodbury and Company has many aspects of excitement and drama, and that the unfolding of the efforts of many talented men and women actually reveals a significant example of the kind of success that can be won in America, by the application of imagination, talent and a lot of hard work.

The story, however, is quite long; and the details are fast disappearing into forgotten memories of the chief actors in the drama. Therefore, if any coherent record is to be made it is time that it was now started.

Moreover, much of the record being unwritten, and the rest of it uncoordinated, will soon be lost unless those who can recollect some of it, and who have the perspective to put it all into reasonable focus proceed without further delay to put it down on paper. That is the reason for this effort.

The reader will understand that in writing this, the author is very vividly aware that the record, especially of the earlier years is spotty, and in many respects quite incomplete. However, it is better to record what is now known, despite the gaps in the story, than to leave the task unattempted, for that would quickly produce a total loss of what is now known.

Harold D. Woodbury
November 1966

After Harold Woodbury wrote the FOREWORD in 1966, he continued to update the story until the 1980s. At that point, Kimball Woodbury undertook to tell the story right up until the company closed in 2002.

The arrangement of the details of a story of this kind presents a problem. For some parts of the record occupy a segment of time such as a year or decade, other parts of the story are related to a longer period of time, the beginning and ends of which have little or no relation to the on-going developments that are the essence of the record, and still other matters reveal a very long term, basic evolution which actually a part of the story that has relevance almost from the very start. The problem consists in how to tell these various parts of the story with reasonable cohesion and unity without making the story too full of spotty paragraphs and parenthetic diversions.

In conclusion, the solution of this problem is this:

There will be a series of chapters telling the brief story in free narrative form of the company’s record by decades. The first chapter, however, will cover the first twenty years. This is, at least, partly due to the fact that we have so little firm information about these very early years. With this exception, succeeding chapters will cover each successive decade, 1900 to 1910, 1910 to 1920 etc.

There are a number of subjects, mostly technical, that have had an impact over many years, and these will be included in the decade in which they first appeared. The
discussion of that subject will be completed at that point, even though it covered a number of decades.

There are a few subjects covered in the life of the company, i.e., the building history that will be covered in separate chapters.

It is believed that the record put together in this way should be quite complete and though the record will obviously not be in simple chronological order, it will nevertheless be more readable and intelligible.

The appendix will include a detailed description of the unique Woodbury and Company processes that highlight the skill and imagination of Edward Woodbury.

[Signature]

Oct 13, 2009
Notes on the
History of Woodbury
and Company
Chapter 1
The Early Years 1880-1900

It is difficult to establish exactly the point time when the enterprise that is now Woodbury and Company, Inc. was begun; but the best opinion and judgement suggests the year 1879.

John C. Woodbury had graduated from the Worcester County Free Institute of Industrial Science - now the Worcester Polytechnic Institute, or WPI - three years earlier. His course of study had emphasized free-hand drawing, a subject which is obviously quite foreign to the present educational program at "Worcester Tech".

As he entered "The Tech" John C. Woodbury undoubtedly had much less educational background than most of his classmates, for he had attended only the public primary school in Charlton, Massachusetts where he had been born. Despite this initial handicap, however, he was able to achieve a standing both scholastically and otherwise which made him the class valedictorian at the graduation exercises in 1876.

For a brief period after graduation, he had served as an instructor in drawing at Worcester Academy, as a substitute for their regular drawing teacher. Also, he had tried out the designing of carpets, in the employ of the Whittall Carpet Mills, but he quickly discovered that this was not especially to his liking.

Some months were spent in New York City as a commercial artist, after which he returned to Worcester.

Upon resuming his Worcester residence, he began work as a "free-lance" artist. And a few months later, May 1, 1881 he formed a partnership with his friend and classmate at "The Tech", Mr. John F. Keyes. These men were both artists, and they both served the firm as salesmen, as well as draftsmen. From the very first, much of their work consisted of drawing on wood, preparing in this way for the work of the wood engravers who were to follow.

The wood cut was made by hand, cutting away the wood in all the areas which were to be white, that is, that were not to print leaving untouched the lines or areas that were to print. And of course, the whole had to be like type, reversed from left to right.

In preparing to make a wood cut, the first step was for an artist to draw, in pencil on the wood surface, the picture to be produced, drawing it in reverse, then the wood engraver with his special "graver" and looking through a powerful magnifying glass, would cut away the wood that was not to print.

It can be imagined that these wood engravings were not inexpensive since they had to be made so laboriously by a skilled artisan.

There was in Worcester a firm called Corliss and Emerson who were active and well-known wood engravers. And this firm gave the young partnership enough work for a fair proportion of its production.

All kinds of advertising pictures, designs, and paintings came from the Keyes and Woodbury studios. One item in the record tells of a "painting of a mill in Connecticut" for which $10 was received.

The record shows that the first drawing of a factory made by John C. Woodbury was in 1882.

Within a rather short time, Messrs Corliss and Emerson developed a disagreement, which opened the way to a transaction with Keyes and Woodbury. A deal was made which
involved the payment by Keyes and Woodbury of $700 for the goodwill and $600 for the equipment and in addition to that, it was agreed that Mr. Emerson would be employed for $3.00 per day. This last part produced in the record, a self-congratulatory remark that this was 50% more than Mr. Corliss had been able to make while on his own with Emerson.

With the absorption of the Corliss and Emerson business with the several employees and customers that went with it, the partnership had become a significant economic unit. As has been indicated, the drawing on wood and the actual cutting of the wood cuts was an important activity. The whole field of what is now “photo-engraving” did not exist.

Halftones had not been invented. If it was desired to print a picture of any kind, it was necessary to make a wood cut of the work to be done by “ordinary printing”, that is, on standard Letterpress machines.

During the 1880s, for several years, Keyes and Woodbury was the source of supply for a substantial fraction of the commercial art work, and wood engravings required by commerce and industry in Central New England.
In the late 1880s half-tone was invented. This new kind of plate for printing pictures swept the field. It was at once the standard method. The making of wood cuts was immediately abandoned. Everyone in the business had to get re-established on the new technique essential to the making of half-tones and zinc etchings. A zinc etching is simply a “line” etching from artwork, of any non-pictorial element to be printed by letterpress. For example, lettering or a trademark.

For Keyes and Woodbury, this meant further development of the making of pictures of factories, as well as the preparation of the great variety of illustrations that are required by advertising of all kinds of commercial activity.
It also meant the development of a department for the photographing of pictures, as well as a department for the making of the half-tones and zinc etchings.
In the building of these new departments, the firm employed young men to learn and grow with the business. Among these were Arthur Howard and Alfred Wesson whose names will appear later in this narrative.
The developing business had outgrown the small office rooms that had been occupied in downtown Worcester. So a studio was built between the homes of the two partners on Park Avenue. This was set back from the street much more than the two homes. But it is worthy of the remark that when this building was constructed, the location was very remote indeed. The nearest public transportation was the horse car that came out Salisbury Street as far as Boynton Street. Obviously, the selling must have been done by salesmen going to the offices of prospects and customers. Even the telephone was not yet available.
During the 1890s this was a busy and successful operation. They often had ten or more employees, each busy painting, drawing and creating advertising pictures, and making the printing plates that the printers would need to reproduce them.
They claimed to be the largest photo-engravers in central New England. The partners felt modestly prosperous, too, for the record suggests, with some apparent pride, that the two men, Keyes and Woodbury had each been able to collect and average of $2,250 annually from the enterprise. 

A development which, as matters were to develop later in the history of the company, was to be of great significance, was the rapid increase in volume of the “Bird’s-Eye-Views” of factories.

BIRD’S-EYE-VIEWS, Later called Industrial Plant Drawings, (IPDs)

This is a subject which has an enormous significance to the overall Woodbury record, a fact that will be evident as we trace the development of this work, and its profound influence on other products. 

The real beginning of this was in the early 1880s, John C. Woodbury, the young artist-salesman of the Keyes and Woodbury partnership was in contact with the Worcester mills which made wire and wire products. And there were many, indeed, They were so numerous and important that Worcester was the largest wire manufacturing city in the world.

The manager of one of the local wire mills gave Woodbury an order for a picture of his plant. It was made promptly and delivered. It greatly pleased the owner of the plant, and when this plant became part of the great wire manufacturing combine, the American Steel and Wire Company, soon afterward, this plant manager was instrumental in arranging for a similar picture of each of the many factories in this very large and important corporation.

One legend has it that the manager was Mr. Moen of Washburn-Moen Co. and the building in question was the first building of what later became the North Works, but which no longer existed. Mr. Moen described it to John Woodbury, who came up with a drawing that pleased Mr. Moen very much.

It was a very large order for the young partnership. It meant travelling to New Haven, Pittsburgh, Cleveland and Chicago to sketch the plants that were located in those cities. It took many weeks of energetic work to complete this assignment. The work when completed was received with satisfaction by the customer, and with praise for the artist. Perhaps even more important, it proved to be very profitable.

Naturally the question arose: if we can do this so well and so profitably for one customer, why not go after more of the same?

Thus began a specialization on factory illustrations which lasted for several decades, and which resulted in hundreds, if not thousands, of these pictures. It has been stated that John C. Woodbury and his associates made more Bird’s-Eye-Views of factories that any other individual or group in the country.

The usual procedure in making a Bird’s-Eye-View was for the artist to go to the plant being pictured, and to make a series of careful sketches. He would note the architecture of the building, especially the faces of the building which would be seen from an imaginary point of view that the artist would determine in his mind’s eye. He would note
and sketch the exact construction of the windows, and count them on every side of each building. He would note the roof structures, chimneys, ventilators, and saw tooth roofs, skylights and the like. It became the customary thing for the salesman who was also an artist, to make a rough suggestion of how the picture would be laid out. Often he could do this, quickly, while on the spot, and the result was just impressive enough, and intriguing enough to win conditional acceptance. “If you can finish this up, and guarantee satisfaction, you may go ahead.”

Back at the studio, the artist would develop the perspective drawing on a large sheet of drawing paper, drawing everything in careful, meticulous detail. After final submission to the customer for approval, the “wash” was then applied. This “wash” was simply a mixture of water and India ink, and it produced a gray tone. The finished work, called a wash watercolor, showed tones varying from the lightest gray, to the darkest gray, almost black.

The author recalls seeing John C. Woodbury demonstrate this method. He would go to a roll of wrapping paper and tear off a long strip. Perhaps six feet of it. Then, working rapidly and with great skill, without a drawing board, or the usual devices for establishing the vanishing points, he would produce a pencil outline of the “way the building will look.” His work was so skillful, and accomplished with such speed and accuracy, that often these factors, as much as the prospect’s need for the picture, decided the issue.

But sometimes an artist was not available to make the sales effort. In that case the salesmen would take many rolls of photographs with a big old folding camera, to let the artist know exactly what the building looked like. The artist could usually produce a totally satisfactory drawing, without ever having seen the building himself.

Color was almost never used. This was due in part to the fact that the time required would have been greatly increased, resulting in a corresponding increase in cost. And equally important, there was at that time, no commercially feasible way to reproduce the picture in full color.

But it was easy to speculate on these “roughs” too frequently. It was all too easy to try to “develop an interest” in a prospect in this way…. instead of following a more conservative line, i.e. first by talk and then showing the work already done, to create an interest in what might be done…. and not until then, if interest was there, to gamble the time and effort required to make a speculative sketch.

Indeed, in some instances, speculation was actually extended to include the finished work, instead of being limited to the rough pencil sketch. Not surprisingly this led to some bad losses.

But there were episodes that revealed that all was not smooth and easy. A story of one such happening is recalled. John C. Woodbury had obtained an order for an illustration of his mills, from Mr. Frick, the famous Pittsburgh steelmaster. The details of the initial stages of the transaction are not included in the story, but when Woodbury had finished the work and delivered it to Mr. Frick, the conversation that ensued went like this:

Woodbury: I’m glad you like it Mr. Frick. Here is the bill for the work.
Frick (looking at the bill) I never agreed to pay you this much for the picture. I’ll give you $100 for it; that’s all it is worth.

Woodbury; (well aware that he had nothing in writing to prove that $500 as the agreed-upon price; and realizing that he was helplessly caught in a trap) I’ll take it.

On another occasion, when work was very slack in the “perspective” department, a completely finished drawing was made of the campus of Brown University in Providence. It is not known whether there was a tentative order, or whether there was some other reason to think that the gamble might be successful. At any rate, the work was done, and the people at Providence declined to buy it. Many years later the drawing was found when the drawing files were being reviewed. The drawing was then delivered to the people at Brown, who received it very graciously, and with appropriate words of gratitude. But that’s all.

These special anecdotes should not be understood as reflecting especially on the good volume, and general profitability and success of the “perspective” department in pursuing this line of work. For it was successful, becoming very well known and respected.

In the preparation of these pictures there were a few special or unusual features that are interesting, and in some cases significant.

In the early days, customers always wanted the chimneys to show great billows of smoke spouting from the stacks. This was to indicate how very busy they were. Later, just the opposite became the standard: No smoke at all, or perhaps just the slightest wisp, was to be shown. For smoke revealed poor combustion, and it was definitely poor public relations to admit that you were pouring tons of soot on the countryside.

The customers also wanted the factory to show in the best possible light, and as large and imposing as possible. Quite often there would be a demand for alterations of specific features. “Remove that old building from the neighbor’s property, and substitute a railroad yard with a line of freight cars standing on it, adjacent to our shipping platform”… “We are planning to make a big extension to this building next year, so we might as well show it now.”

There were special techniques available to the artist to make the building look bigger, without actually exaggerating anything. Two of those special techniques were used in almost every instance. The first was to flatten the perspective by spreading the distance between the vanishing points. In this way, the two faces of a building that are visible from a given point of sight, seem to be extended. So, without increasing the number of windows, or in any other way falsifying any detail, the building seems to have a much greater magnitude.

Another technique used for the same purpose, namely to make the building more impressive and imposing, was to arbitrarily lower the horizon. Normally, the horizon is at the same level as the vanishing points. But if you lower the horizon from this level, you reduce the amount of area involved in the background. With the background reduced in area, the relative importance of the building is obviously greater. Presto, the building becomes much more impressive.
John C. Woodbury became personally extremely skillful at the work of painting these factory pictures. He did them well, and with great rapidity. Many times he was observed painting with both hands at once! And when it came to painting the skies on these paintings, it became an accepted fact that "JC's skies were real masterpieces."

In passing, it should be noted that his skill in painting led him to develop, especially during the last few years of his life, a hobby of landscape painting, usually in watercolor. Many of his beautiful; works are among the most prized possessions of his descendants.

The rapid development of New England and the adjacent states of the industrial Northeast was an obvious basis for the quickening interest in factory illustrations. When a concern has a good product and was able to sell it in quantity, resulting in the erection of a splendid modern factory establishment, what better way was there to advertise the fact of their good product, and good business methods, than by displaying a picture of their facilities?

People who lived nearby or business men, who had occasion to visit them, would naturally know all about them. But this kind of appreciative acquaintance could hardly be expected to exist with possible customers five hundred or a thousand miles away. How better to win them, than to show them an impressive picture?

In the longer term review of the company record, it is to be noted that the work of making Bird’s-Eye-Views has been a valuable feeder for other kinds of work. The making of copies by gelatin printing, photography and photogravure is one area where it is important. And later, the basis that it furnished for the move into photogravure illustrated letterheads is actually a vital part of our record.

By the end of the decade, and of the century, the possibilities of this line of work, including the uses to which these pictures could be put, were beginning to form the basis of some dreams—dreams which were original and quite imaginary, but dreams which John C. Woodbury was to live to see handsomely fulfilled in the remaining thirty years of his life.
Chapter 1 The early years 1880-1900  7

John Keyes was having serious health problems. He would become short of breath on the slightest exertion, and his heart would race so fast that he would be quickly exhausted. He had arranged a six-moth leave of absence and seemed much better. But on resuming regular work, the difficulties returned, and he made up his mind to make a complete change in his living and working arrangements.

So the partners negotiated a separation, Mr. Woodbury buying out Mr. Keyes’ interest. It is not known what the sum was that this involved, but it can be guessed at roughly from the fact that John Woodbury raised the money needed for the transaction by placing a mortgage on his home.

Thus in December 1898, the partnership was dissolved. It had lasted 19 years. With the separation of John Keyes from the firm, the name of Woodbury and Company was adopted.
At the beginning of the new century, many changes were being planned. The concern was a busy, reasonably prosperous and effective unit. It was what would now be called a “photo-engraving shop”, with the addition of a well-known producer of “Bird’s-Eye-Views”.

John Keyes had withdrawn the year before, for reasons of health. John Woodbury was the head and leader of the operation, putting in much of his time and effort in the selling and production of the factory illustrations. Alfred Wesson was rapidly becoming an effective manager of the “process” department, i.e. the part of the organization making the halftones and zinc etchings. And Arthur Howard, a promising young artist, was in charge of the “Art Department”.

For some years the work of the “Bird’s-Eye-Views” had become an excellent source of revenue, as well as a “feeder” for other work, such as could be produced by the other departments. And it was noted that, to an increasing extent, companies which purchased a picture of their manufacturing properties, wanted large copies of these pictures. It is a bit difficult, now, to appreciate the popularity of this habit. Almost every good-sized factory felt it to be an essential part of their operations to distribute large copies of their factory picture to all their friends and customers. For a decade or more, before and after the year 1900, if you were to enter a factory office or a sales office in Boston or New York, you would find the walls literally covered with large pictures of factories. Many of these pictures would show, in the lower right corner, the signature of Keyes & Woodbury, or Woodbury & Co.

Until 1901, when a customer wanted large copies of one of these pictures, it was necessary to buy them from some outside concern, either “gelatin” prints, or photographic enlargements. Later, after 1908 large photographic prints also included among the possibilities.

The situation led to the purchase of the operation being conducted in Gardner by Mr. Herbert Carlton. He moved to Worcester, and was installed as the head of the “gelatin” department, whose function was the making of large copies of factory pictures, using the gelatin process in which Mr. Carlton was an expert.

The Gelatin Process

The characteristics of this process are:

1. Soft smooth tints
2. Freedom from screen effects (No screen is used)
3. Economical for production of short editions
4. Appropriate for fairly large work e.g. up to 36”

It will be observed that these characteristics make it almost ideal for the production of “Bird’s-Eye-Views” where the edition called for is rarely as many as 100 prints.
When Herbert Carlton came to Worcester, the name of the company was changed to Woodbury- Carlton Co. 

It was unfortunately but a few years after Herbert Carlton came to Worcester that serious dissatisfaction arose within the organization. It is impossible for us to now identify the causes of this, or to comment helpfully upon them.

At any rate, Mr. Carlton withdrew, and he immediately organized the Carlton Engraving Company to compete with the parent company not only in the matter of gelatin printing, in which Mr. Carlton was an expert, but also in the growing field of photo-engraving. Carlton's adoption of the name “Carlton Engraving Company” made it mandatory that the name Woodbury-Carlton be changed. So, the name became Woodbury and Company, and the chief associates of John Woodbury at this point were Alfred Wesson and Arthur Howard.

Just why Carlton felt it necessary to withdraw and compete, are not now clear, but there is some evidence that the split, and another which was to follow a few years later were related to a clash of personalities.

Arthur Howard was young and ambitious, definitely a talented artist and a hard worker. He had a real gift in the kind of creative art that commerce and industry always find useful. If he had a problem it was a strong temper and a tongue to match. Alfred Wesson was also a hard worker, but he was a “smoother” and more agreeable personality than Howard.

During the early years of the century’s first decade, it seems probable that the “perspective” department, the part of the work that came within the personal interest and management of John Woodbury, was less profitable than it had been, and less profitable than the growing and active “art” and “process” departments.

There is recollection of many astringent discussions among these three men. Perhaps “discussions” is not the best word to describe these verbal encounters, for John Woodbury, when under critical fire, was more likely to “take it” than to respond vigorously.

Another factor that may have had a bearing on the situation is John Woodbury’s increasing interest in the photogravure process, and its possibilities for the Woodbury concern. Whatever time and effort went into this process during the years under review in this chapter almost certainly represented outgo of cash, with little or no resulting compensation.

What had become a serious and distracting situation reached solution, however, about 1907. Mr. Woodbury agreed to sell to Messrs. Howard and Wesson the two departments, the “art” and “process” departments with all the associated equipment and machinery, that these two men had been leading.

This was the start of the Howard Wesson Company. These two departments had been occupying rooms at #4 Walnut Street. They set up business for themselves, and stayed right there.

The rest of the concern remained as Woodbury and Company, and this part too, stayed right where it was on the top floor of #4 Walnut Street.
Chapter 2
A Decade of Change 1900-1910

The year 1907 was important in the record by reason of the withdrawal of Messrs Howard and Wesson, with the resulting diminution of the scope of the company’s activities. The products of Woodbury and Company were now quite limited. There was, of course, the old stand-by, “Bird’s-Eye-Views” and copies buy gelatin printing (which were now purchased from outside concerns, probably not Carlton). There was a certain amount of commercial photographic work. And the photogravure process was used to produce copies of middle size (12” x 20” in dimension).

But the year 1908 was important in the record by reason of the fact that John Edward Woodbury (everyone called him Edward) completed his course at Worcester Tech. He had taken the “General Science” course, one which obviously was spread over the fields of Chemical, Civil, Mechanical and Electrical Engineering. This was highly fortunate in the light of what he was called upon to do, as soon as he joined Woodbury and Company. John C. Woodbury had become intensely interested in photogravure. Here was a process of making pictures that was so much superior to the half-tone method that there was no comparison, when real richness and high quality was desired. Up to this time photogravure had been used almost exclusively for the frontispieces for books, where the circumstances justified an extra allowance for cost. He appreciated the fact that photogravure could use a screen so fine that it was not visible to the naked eye, or, alternatively, a dust screen which, if it could be seen at all, made a pleasing pattern. John C. Woodbury’s highly cultivated artistic discrimination responded with enthusiasm to the beautiful work that could be produced by this method.

Among the first assignments that Edward Woodbury undertook was the making of photogravure plates of various subjects that were available. To begin with, of course, were the Bird’s-Eye-Views of factories. These prospects were immediately available, for the pictures were being completed currently, no doubt, four or five every month. And some of them agreed to buy a photogravure plate, and an edition of copies for framing and distribution. Edward developed great skill in the demanding and complex process of making these Photogravure plates.

A second kind of work was covered by the phrase “Art Prints”. It was thought that people might like to buy Christmas Cards with a beautiful Photogravure reproduction of some religious picture painted by one of the “Old Masters”. Several Photogravure plates were made in development of this idea, and editions of cards were printed from these plates.

In the Worcester Art Museum, at the time, was an exhibition of Biblical paintings by a world famous artist named Tissot. One of them, for example, was entitled “Christ and the Doctors”. This was a painting in which the figure of the twelve-year old Jesus stood in the midst of learned and thoughtful men. The depth of color and richness of the tones were remarkable. Our copy of this painting was itself a work of real art.
The leadership of the company, it now seems, in long retrospect, was completely absorbed in the technical problems of making beautiful copies of the pictures, and had no time or attention left to seriously meet the problem of selling. At any rate, all this work, while splendid technically, did not sell. And in the history of the company, can be put down as one of the growing pains involved in establishing the Photogravure process as a significant part of our “arsenal” of methods.

During this time too, we found a few...a very few... customers who wanted a picture of their factory on their letterheads. We were happy to oblige. But what we made in response was a photogravure picture by the original dust method, and then hired an engraver to put in the lettering....but the lettering had to be shallow, for the work was to be printed by hand, and deep-cut lettering, of the kind we are now familiar with, would be wiped out when printed by hand. Needless to remark, in this connection, that the price of hand-printed Photogravure letterheads was very high...and as compared with alternate methods of production completely non-competitive.

About this time, Harold Woodbury, John Woodbury’s youngest son became involved the business, when he began sweeping the floors on Saturday afternoons. One day when he was fulfilling this chore, the telephone rang. Harold answered it, and the caller wanted to know when his letterheads were going to be delivered. Of course, Harold was taken aback, and was somewhat speechless. Finally the caller said, “What’s your name?” By that time he had recovered, and answered “I’ll find out”. So much for the future head of the company.

The business of Bird’s-Eye-Views seemed to be running into a slow and hard-to-analyze decline. Very likely this was based on the increasing recognition by the business and commercial community that these pictures would be, and very often were, faked. That the factory shown in the picture was so large and imposing that even those familiar with the place would hardly recognize it. The answer to this could be an actual photograph from an elevation, or a tower. This was the spark that started the development of the Sky Camera.

The Sky Camera
It was 1908, John Edward Woodbury had just graduated from Tech. He had started at once on his career with Woodbury and Company, apparently accepting the opportunities and challenges offered by the company as his appropriate field of work.

In another section of this record will be the story of his taking hold of the photogravure method of making prints of pictures, and adapting it for power production of letterheads. But this section is concerned with the brilliant effort that was made to meet one of the problems associated with the work of making factory illustrations.
Although a great many factories were being built each year, more and more artists, when called upon to paint pictures of the factories yielded to the pressure from the buyer to make the scene more attractive than it was in fact. It is not clear what an artist should do, in the face of such requests. We probably made the picture as required by the purchaser. And quite naturally other artists doing similar work had similar responses. In any event, people began to assume that this kind of picture was exaggerated. This greatly damaged the market for this kind of work. "Why should I buy a picture of my factory, when no one will believe it is true, even if it is?"

The writer recalls an interview he had with the owner of a large textile factory in Worcester. The question of the frequent exaggeration in factory pictures was raised by the prospect. "Do you ever exaggerate the size of a factory in one of these pictures" he asked.

"Well," said I, "Sometimes we have to follow two standards of truth"... He laughed uproariously, but he wanted a picture, anyway, and we made it for him.

What was to be done about this almost universal attitude?

There was one obvious solution. Make a photograph of the factory. When one looks at a photograph, he accepts it at truth. There is an obvious veracity about a photograph. It was necessary, of course, to get up high enough to be well above the roof of the building being photographed. In the case of a small, one-story factory, this might be accomplished by a stand thirty or forty feet high; or there might even be a high enough hill in a convenient location or perhaps a water tower on a neighboring factory. But when it is considered that many factories are three or even four stories high, that the presence of hills or water towers is purely a matter of occasional luck, it is at once obvious that to meet the commercial opportunities even to a minimum degree would require a tower of at least seventy five feet, which could be dismantled and transported from place to place without undue expense. This tower should be strong enough possibly to support the weight of a man who would ascend it, and take the photograph, or, alternatively, there should be an arrangement permitting the mounting of a camera on the top, with the sighting and exposure devices that could be worked from the ground. This was the challenge.

Edward Woodbury proceeded to meet it. The first effort was in the form of a nest of great brass tubes, telescoped together. There were, I think, ten of these tubes, the largest about five inches in diameter, and the next one as large as would go inside this five inch tube, and each succeeding tube, a trifle smaller.

Erection of the tower would be accomplished by pulling up the smallest of the tubes to a height that would allow the lowest two feet of the tube to remain inside the next one, that is, there would be two feet of overlap. When the smallest tube was raised to this height, cross bars and truss wires would be added to the structure to give it stiffness. To be sure, this process would be slow and
awkward, but it seemed the best possible.

How well I recall the test of this giant “telescope”. There was a large field across Park Avenue from the Woodbury home (where Salisbury Garden Apartments now stand). The nest of tubes was set up, with guy wires in four directions to hold it steadily upright. The smaller tube was raised up to the intended height, fixed with a pin through it, and wires carefully installed. Then the second tube was raised in the same way, which of course carried the first one up this additional ten feet. All went well so far. At this point, our tower was thirty feet high.

Still another tube—the third one—was raised, slowly and carefully to its position. At this point, of course, we began to get into use, the four guy wires that were to hold the tower upright, these wires, of course, being attached to the top of the heading i.e. the smallest tube. As these four guy wires began to function, in their duty of holding the whole tower upright, they must have exerted a downward pull on the whole structure.

Suddenly, without the slightest warning, the tubes began to sag. We watched in horror... There was nothing that anyone could do to stop the bending of the tubes. The whole thing collapsed into a tangle of bent and broken brass tubes, and a tangle of wire.

“Thus endeth the first lesson”

The lesson seemed to be that the brass tubes lacked the needed degree of longitudinal stiffness. Perhaps some other material would be better in this respect.

So the second attempt was to build a nest of wooden poles. A kind of wood notable for strength was chosen and a group of poles, with a four inch cross section was prepared. Of course, now we could not use the convenient nesting arrangement that was so obvious with the brass tubes. So, we did the next best thing, which was to nest them side-by-side, with steel collars to hold everything together.

Now, the process of erection would involve raising the pole at one end of the cluster, locking it and trussing it, and then raising the second pole to its intended height, locking it and trussing it, etc. until the whole group of ten poles had been raised, and the tower would stand at its full height.

When the second version was ready, it was brought out on the testing field, and we proceeded to put through the routine which was required.

However, this, too, was doomed to failure. For when the top pole had reached the height of perhaps forty feet, something gave way, and it came down in a great heap of broken poles and a tangle of trusses and wires.

The time had come for a new approach.

The third effort, using a brand new engineering approach proved very successful. From the standpoint of technical effectiveness, it was an almost perfect success.

It was a light wooden frame, triangular, with each of three faces trussed by cross wires, tightened with turnbuckles. The frames were slightly tapered so that, for example, a
frame might measure thirty five inches on each side at one end , and thirty eight inches on each side at the other end. Using this taper, it was possible for one frame to telescope into the next larger frame, for convenient handling and shipping.

It proved to be remarkably strong. I recall a test that was made one day. A thirty foot section was assembled, and one end placed on a box, with the other end on the ground. John C. Woodbury, who was a rather heavy man (over 200 pounds) stood on the middle of the thirty foot frame. It withstood this strain without the slightest difficulty.

There was clever device which was used to lock the sections together in a manner which made the linkage not only strong, but entirely free from slack. The result was that we could assemble a tower, level on the ground, for eighty feet long, one hundred feet long, or even on one occasion at Buffalo for the Pierce Arrow picture, one hundred twenty feet long, without any serious technical problems.

The tower was assembled on the ground; and then it had to be raised. For this we had a tripod about fifteen feet high, to the top of which was attached a heavy wire, and the other end of which was on a windlass staked to the ground. When all was in readiness, we would turn the windlass, pulling on the tripod. And as the tripod began to come down toward the windlass on the ground, the whole tower could start coming up.

Controlled carefully by guy wires, it gradually reached the upright position, where it would be caught in position by guy wires, front and back.

An arrangement for holding the ropes by which the camera could be hoisted into position made it possible to bring the camera to the top of the tower, and in a position to take in exactly the required view. Exposure by an electrically actuated shutter completed the operation.

The Sky Camera using this third version was a complete technical success. By the use of this invention, better pictures of small isolated factories were made than ever before or otherwise been produced. That still holds, even today with airplanes and helicopters.

For a few years that this device was in operation, there were , of course, several experiences and episodes that were interesting. One, for example, was involved in an expedition to Holyoke to photograph one of the divisions of American Writing Paper Company. It was situated on the edge of the Connecticut River. There was no place to put the tower except out in the middle of the river. We waited until mid-summer when the river was almost dry (the actual flow being diverted into the power canals that run through the industrial section of Holyoke.) The river bed was not exactly a suitable place to set up the tower. Just a jumble of ledges and great rocks.

Another episode that I recall underlines two of the problems that occasionally developed. We were to photograph the Crocker McElwain Paper Mill in Holyoke. This mill stood on the west side of one of the great canals which industrial Holyoke is interlaced. Across the canal, on the east side , was a rather untidy street with closely
Chapter 2  
A Decade of Change  1900-1910  15

..three-deckers” abutting it. The only place where we could set up the tower was a narrow space between two of these three story houses. The weather was fine, but was windy... a variable gusty wind, first from the west, then from the south.

Despite these problems, both apparently minor, we went ahead. The narrow space between the houses forced us to change the normal angle of the guy wires from 45 degrees to perhaps 80 degrees. This steep angle of the holding wires reduced their ability to hold the tower firmly. The wind greatly accentuated the tendency of the tower to tremble and vibrate.

The pictures were taken. Several exposures were made. But all of them showed a small degree of shake.

Another problem, one which did not develop in New England where most of the factories were small, showed up when we made a picture of the Goodrich Tire factory in Akron Ohio. This great company already in 1910 had a huge complex of buildings at their headquarters in Akron. Large four or five story buildings stretching for blocks. Here we set up the tower at its full height of one hundred twenty feet, and this was somewhat above the highest roof lines of the buildings. The photograph, at least technically, was very good. But while it showed the building in the foreground very well indeed, the buildings back of this were visible only to the extent of half of the uppermost story, and the buildings farther in the rear some of them hardly showed at all.

The customer insisted that the buildings in the rear be made to show more impressively. To do this, we had to elevate what did show of these rearward buildings, and then paint in, with the most meticulous care and detail, a line of windows, etc. so that the picture when thus altered would give the buildings in back a much greater visibility. Perhaps it need not be remarked, that this kind of alteration of a photograph, especially since it has to be done with such perfection of detail that it still looks like an unretouched photograph was extremely expensive.

Looking back now in 1966 to this effort to meet one of the obvious problems associated with the making of factory illustrations, it seems altogether remarkable that the two Woodburys, John C, and John Edward, had the courage, stick-to-itiveness as well as the engineering imagination to make this experiment. In the face of a financial situation in the company which was anything but satisfactory, they spent the money required to make the two versions of a collapsible tower which were prompt failures. Then they proceeded to build various versions of the final design.

Regrettably, at last the effort was labeled a failure. It must be emphasized that the failure was commercial, for the results of the work surpassed anything done in the narrow field where it fitted, before or since,
Chapter 2
A Decade of Change 1900-1910

Why was it a commercial failure? The official conclusion at the time was simple: "It is impossible to sell enough pictures taken by the sky camera at a profit-making price."

In a long term historical perspective, however, the author remains unconvinced that this was fully a correct conclusion. In the light of many experiences since, it is clear to him that determined promotion can sometimes sell services at a profit-making price, which under conditions of less determination, seem impossible.

One episode is recalled, and this, while in no way typical, may suggest something of the business and selling philosophy of the time. An order was received to make a picture of the Windsor Machine Company in Windsor Vermont, a small modern attractive building with saw-tooth roofs, which would make a fine picture. The order came to us from the Blanchard Press in Worcester ... a concern which later was purchased by Commonwealth Press. The price was $75 for the job, the Blanchard man saying "This is less than your usual price, but it is all I could get." The work was done very successfully, and the work billed out.

Some weeks, or months, later we heard indirectly, but reliably, that Blanchard had obtained $150 for the work, and had taken advantage of our price-weakness to exact an unreasonable bargain. If there is a moral here, as there may be, it is of course that a business is not often successful without a firm price and profit policy. It may be, I think, that a failure on this important point may have had a strong effect upon the commercial failure of the sky camera.

During this period, 1900-1910, the company was trying desperately to find its proper niche, and in the effort undertook many various things. This is perhaps well illustrated by reference to a few episodes, significant mostly for their diversity.

An order was received from the Underwood Typewriter Company for a catalogue of type faces and special keys they made available to their customers. Why in the world they sent us this order is a total mystery. It may have been that when we were doing a general "photo-engraving" business, the habit got started. In any event, they sent this order to us by mail. We tackled it, sending various parts to various other concerns who were equipped to handle these parts of the work. I am sure that if a purchasing agent of the Underwood Company had looked in on our struggles to produce this job, he would have had a fit.

Another job, less inappropriate, was an order from Stone and Webster, the famous concern in Boston, who was at that time was embarked on its historic and tremendous development of electric utility installations throughout the country. This order was for making a large number of photographs, taken in the communities in which they were working, to show their northern stockholders the sort of young and growing cities that were being served by these new utilities.

One of our employees, Harold Wilson, who later became Sales Manager, was sent on a months-long journey to get these photographs.
An interesting accounting practice developed during this time. When a concern is technically insolvent, the balance sheet shows, instead of a “Surplus” (an excess of assets over liabilities), it will show a “Deficit” (an excess of liabilities over assets). Fair and correct accounting requires that such a deficit be shown and properly labeled. But during this period, when we were spending a good deal of time and energy developing processes and procedures, to make the new letterhead venture operative, we were actually carrying a substantial deficit. But instead of showing it as such on the books, we liked to pretend, and I am sure this was entirely sincere, that our patents and processes had considerable value. Therefore, in preparing our annual balance sheet, it was the practice to label the deficit “Patents and Processes”. The more we lost, the more “Patents and Processes” were worth.

At one time this “value” reached $10,000. When at last we began to show a net profit, this valuation began to come down. And eventually our balance sheet showed the value of this item a $1.00, which under more favorable circumstances so often suggest so much more.

It will be seen that for some years around 1910, the truth is that our financial condition was strictly “touch and go”. There was no strong, profitable line of work, when we could sell a “Bird’s-Eye-View” it usually was produced efficiently, with excellent customer satisfaction, and with a fair profit. But orders came irregularly and with difficulty.

An interesting evidence of the need to show progress, at least to ourselves, was the way we computed the monthly finance figures. Let it be noted parenthetically, that we used a primitive single entry bookkeeping system, so there was no assurance that the entries we made were tied in properly with the overall figures.

As we closed the books each month, John C. Woodbury would review cards—each card representing one of the orders in process—and would estimate the “percent completion” as of the month end on each of these jobs. If he estimated that the XYZ job was half done at the end of the month just ended, that job would be deemed to be worth half the price that we would receive for it when completed.

This was, of course, unorthodox accounting, but, worse, it was a complete waste of time. But it reveals as well as anything could, the urgent psychological need to be able to show some progress toward a profit, from month to month.

It was probably about 1908 that the basic question of long term business policy began to come into focus. It may very well not have been a sharply conscious search for a satisfactory future base, but in any event, there was a convergence of factors which made it clear that a new line of advance was essential if the business was to survive in any significant way.
The business of making “Bird’s-Eye-Views” or “airplane factory illustrations” was beginning a long decline. The vogue of distributing large copies of these pictures was clearly passing its peak of customer acceptance. The company had a strong position in gelatin printing, but this was useful only as it served the Bird’s-Eye-View copy business. Photogravure was a beautiful process for one color copies of pictures, but it was so unusual and difficult in the technical requirements, as well as slow and expensive to print that its future as a method of making large copies of factory pictures was seriously in doubt.

Was there, perhaps, something else that could be done with Bird’s-Eye-Views that would give this line of work a new lease on life? So far, the uses to which these pictures had been put were very few indeed. There was, of course, the already mentioned sending out the large framed copies to be hung on customers’ walls; there was also the idea of putting a copy of the picture in the firm’s catalogue as a sort of frontispiece. But there was nothing much else.

What about reproducing it on the letterhead? This had been done in a very small way for a few years previous to this time. The usual manner of doing this was to include the picture on the firm’s letterhead in Lithography. Lithography in those days was printed from stone, with the picture itself drawn by an artist, in line. In passing it may be added that the typical letterhead design was (from the present viewpoint) wildly inartistic, and a bit ludicrous. At any rate, a factory picture was a drawing—not a photograph—and it therefore had a look that even then could be referred to as “old fashioned”.

There was one other method of putting these pictures on letterheads. That was by “steel engraving.” Here the lettering was engraved with all that that could mean in terms of impressiveness and quality; the picture was engraved in line and dot, by an expensive artist. And since it was done in line, similar to the lithographic picture, it was, like the lithograph, “old fashioned” in appearance. The steel engraving therefore was not attractive and it was also expensive. It is not difficult then to understand that it had no real place commercially.

Two other methods of printing a picture on letterheads should be mentioned. The first was regular “half-tone”. The half-tone process had been invented some twenty years before, (as mentioned earlier in this story), and was universally used for pictorial reproductions for normal purposes. But for good work, it was found that the paper should be very smooth, that is, coated. This was because it was so important that the pressure of the impression should be the same per square inch of inked surface, throughout the area of the picture. Coated paper, of course, was quite out of the question for letterheads; therefore half-tones were “out” for this purpose. If one tried to print a half-tone on bond paper, i.e. the kind of paper used for letterheads, the result would always be a blotchy-looking, coarse picture with extremely rough and unattractive edges or “vignette”. No one would think of using this method for a high-grade letterhead.

Then there was also used, but very rarely indeed the hand printed. Photogravure method.
Chapter 2
The Decade of Change 1900-1910

Here the picture would be etched in the plate by the usual photogravure method, etching the picture through carbon tissue, laid over a rosin dust. Then the lettering would be engraved in the usual way, though much less deep than would be the case if the engraving were to be stamped by power. This photogravure letterheads plate would be printed by hand in the same way that photogravure art prints were made. (and still are). For a very few customers who wanted the best, and didn’t care what it cost, we made letterheads this way during the climactic years from 1905-1910.

The profit was non-existent. The bookkeeping was primitive. The sales work was far from professional, and, at least from the present point of view, it was not strong or imaginative in any way. The technical imagination and ingenuity of Edward Woodbury joining the company in 1908, was very strong. And the artistic skill of John C. Woodbury was, of course, superior.

Acquiring new skills in making photogravure plates seemed to be a possible area of exploitation. The paragraphs in the previous pages at least hinted at the possibility of attempting to join the photogravure picture-making process with pictorial letterhead design, and with the then-developing Diestamping process of making engraved letterheads.

Given this background of technical facts, commercial development and financial urgency, what was to be done? What COULD be done?

The time had come for a now-or-never decision. Close down, admit failure, go through bankruptcy, start over again working for someone else, or... go all out for photogravure letterheads. Perfect as rapidly as possible the various elements like plate making, solve the problem of moistening the paper, design and construct adjustments in the diestamping press, find out how to make changes in plates that would often be required, learn about the iron facing to protect the plates. These were the problems to be met and solved. Whether the decision was a sudden inspiration, or the result of long study, or of many conferences, is not now known. At any rate the decision was quite clearly arrived at, that we should embark on a program of photogravure letterhead design and production. We would take the then undeveloped photogravure process, adapt it for power printing on diestamping presses, and thus, we hoped we would find it possible to make beautiful letterheads taking advantage of the existence of hundreds of Bird’s-Eye-Views that we had made, and those we hoped to make in the future.

Could this make an effective viable business? It was certainly doubtful. Mr. James Logan, the man (a very close friend of John C. Woodbury) who had just put together the “envelope trust” - the United States Envelope Company, thought the outlook for the venture has “hopeless”. “No one will pay what it costs” he insisted.

To us now, nearly sixty years later, the drama of the situation is crystal clear. But at the time it was lost in the fog of difficulty, discouragement, and often times, black despair. It was assigned to Edward Woodbury to make the technical developments in photogravure etching methods that would be required; also to make the necessary
modifications in the standard Diestamping press that would make efficient production possible. Along with these major tasks there would soon become apparent several other technical obstacles to overcome. Everything was committed to the gamble. The story of the development from this low point will be covered in the story of the next decade... 1910-1920 and will be appropriately titled “THE STRUGGLE TO SURVIVE”

THE PHOTOGRAVURE PROCESS AND WHAT IT HAS MEANT TO WOODBURY AND COMPANY.

The story of Woodbury and Company would have come to an end early in the 1900s if the photogravure method of picture printing had not existed. As it happened, there was a convergence of several factors at a period of time where each factor could contribute something, with a result that was clearly the basis for the establishment of the company, and for much of its longer term growth. First, what is the photogravure process? The dictionary definition is very broad, and indicates that any intaglio engraving of a picture photographically produced is a photogravure. As this story develops, it will be come evident that Woodbury and Company developed and adapted one form of photogravure to the uses of engraved stationery; and that this special form came to be known, by us at least, as “Woodbury Photogravure”. (For a detailed technical description of Woodbury Photogravure, see the appendix)

Intaglio is an Italian word meaning “cut”. A printing plate that is cut below the surface, where the area or lines that are thus cut below the surface, are the areas and lines that print., is an intaglio. So when we say that a photogravure is an intaglio plate, we mean that it is a plate which has lines cut below the surface and where the picture (made up of the lines) is produced by a photographic process.

There are many advantages of this process for printing letterheads, as compared with alternative processes, Suffice it to mention the following:

1. The detail can be extremely fine. It can be finer and smaller in detail than the naked eye can see. This is important when you are considering a letterhead where the picture must be reduced in size to perhaps two or three inches across.
2. The intaglio plate (any intaglio plate) can be printed on bond paper, the kind used for letterheads, with complete precision and perfection on every print.. Once you get enough pressure to print well, every print will be perfect and will be the same...the variations in thickness and surface that are features of bond paper will have no effect whatever on each print (Compare this with halftone, which requires coated paper to be at all effective).
3. Vignettes can be extremely delicate and attractive, and can be produces by skillful use of a burnisher on the plate. Nothing like this is possible with a half-tone.
4. Darks are possible, of great depth and richness, far beyond the capacity of any alternative process, including lithography.
Starting then, with this quick review of the photogravure process itself, what was the problem facing Woodbury and Company?

It was evident at once that the then-available process for making photogravure letterheads was completely out of the question, partly by reason of cost, and partly by reason of the bad effect the process had on the paper.

A few customers were actually being served by the production of hand printed photogravure letterheads around 1908. The plates were made with the usual "dust" photogravure, and the lettering was engraved shallow (like a visiting card plate) because it would be printed by hand, which required shallow lettering. Then the paper to be used was pre-moistened, that is, taking perhaps 50 sheets at a time, the paper was dipped in a tub of water the day before, and set out between blotters until the next day, by which time the water would pretty well have soaked through all the fibers of the paper. Then the printing process itself, where a muscular man would ink and wipe the plate, after which the assistant, usually a girl, who was seated by the press, would place the letter paper over the plate carefully in register. The man would then pull on the big wheel at the side of the press, and the bed would carry the plate and paper through under the roller, giving it a very high pressure. The bed would then spring back to the original position, the girl would take the paper off the plate, and the process would begin again.

The printed sheet would be laid out on a rack to dry until the next day. The next day, the dried prints would be picked up. But the paper would look like a "dish cloth" before it is ironed.

The final process was "plating". A plate - a piece of masonite board, or equivalent, would be placed on the table. Then the letterheads placed on it (if the masonite board was 20 x 24 which was usual, there would be room for four letterheads arranged upon it). Then another masonite board, then four more letterheads. Until there was a stack of these masonite boards, perhaps fifteen inches high. The stack was then put through a hydraulic press with very great pressure...and this would smooth the paper down, almost restoring its original attractive, smooth appearance.

Then the letterheads were inspected, counted, packed and delivered.

No wonder they were expensive. No wonder this process has little or no commercial appeal.

The project then, was this: To develop a form of photogravure which could withstand the rough, abrasive wear of a power stamping press better than the "dust" photogravure described in the preceding paragraphs. And then to find a way to duplicate or improve, the results of the hand printing, by using a power stamping press.

First, the photogravure etching. The "dust" photogravure produced a beautiful result, and if the effect of the dust could be seen at all, which was seldom, the pattern produced was pleasant in appearance. But the irregular pattern had no ability to resist wear. Edward worked out the use of a regular screen, three hundred lines to the inch both ways, with the space between the line twice the width of the lines. This was entirely successful.
It was found that a photogravure etching could be made with this kind of screen which would produce a splendid picture which would actually result from the ink that was caught in the grid of valleys that had been etched. These valleys, of course, varied in depth as well as in width. The deeper and wider these valleys, the more ink and the darker the tone.

It was found that in practically no case could we produce a photogravure etching that could be used without more or less retouching, or hand-tooling. The retouching therefore became a standard part of the routine of making a photogravure plate. This special form of photogravure that we have described lent itself very well to the retouching process. For, if it was desired to make an area darker than it was when it came from the etching bath, it was necessary for the retoucher to put his graver into the groove already etched, and run it carefully along the groove, deepening it slightly and the result would be to darken the line and thus the area. By the same token, the fine lines could be made more shallow by the delicate use of a burnisher. In effect the skill required of the retoucher was minimized by the use of the screen. Of course, also, it should be remarked that the grid of more or less deep valleys in the etching made the plate which was ideal for resisting wear.

Second, there was the question of printing this plate on a power press. A word may be said about the press. When we began this development, we borrowed a press from the Hill Division of the United States Envelope Company. It happened to be a Waite Die Press made in England. There was one other type of press then in general use, namely the Carver press. The Waite Press had a wipe that was much more sophisticated than the wipe of the Carver. As experience developed, it became the firm opinion that the Waite wipe was much superior to that of the Carver.

The next challenge was to protect the photogravure plate against the wear caused by the wiping action, for long editions of letterheads. So it was necessary to create an electroplating operation to plate (or face) the copper with iron to protect it.

Traditionally, photogravure engravings have been made of copper, and for all but the shortest editions, they have been protected by a coating of iron (which we always referred to, inaccurately, as steel) electroplated onto the surface of the plate.

In the case of the shortest editions, 100 or fewer, for example, it was known that the wear and abrasion of inking and wiping would appreciably affect the engraving. But if the project was to make a few impressions from a beautiful photogravure etching, a few prints made as the plate was being worn out in the process, would make those prints more valuable for no more could be made. ...the edition had been completed.

However, in the making of letterheads, of course, an edition of 100 prints would have no value, so it was necessary to protect the plate against the wear and tear of printing.
The usual way was to electroplate it with a thin layer of iron (steel). The standard plating (or facing as it was equally called) would last 5000 prints in the pressroom. This happened to be about the production of half a day. The result of these circumstances was that at 12 o'clock, all the presses would stop, all the pressroom operators would hurriedly take off the plates which were to have more prints made from them, and rush them to the plating room. The plating room would quickly clean them, solder them to the hooks needed for the electroplating process, put them into the plating tanks and turn on the current. At the end of about a half an hour, they would be finished; the plates taken from the tanks, the hooks unsoldered, and the plates rushed back to the pressroom, where the printing would then be resumed.

The same procedure would be repeated at 4:30 when the pressroom day was ended. For many years, while this process was the normal method of protecting the plates against wear, it served incidentally as a protection against competition. For most engravers were not equipped to put on these iron facings, or any other kind. And as we delivered the plates with the facing removed i.e. in the pristine copper condition, the usual engraver would throw up his hands, and give up on doing the job. Sometimes, in ignorance he would put the plate on the press, and the plates would show great deterioration within a couple of hundred prints. The competitor would get scared, take the plate off, and confess his sins.

But all this was subject to much improvement. The story of this improvement begins in Washington.

At the Bureau of Engraving and Printing in Washington, paper money and stamps have been, from the early days of American history their major product. For the production of these extremely important items, they had assembled a staff of the very best artists and engravers, as well as technicians in handling of steel, steel transfers and the like.

The usual process in the production of a stamp, for example, would be for the artist to make sketches of various possible designs. After one of them had been approved, the engraver would then copy it in soft steel, of course, in reverse.

Then this soft steel engraving would be hardened, and by the use of a very ingenious machine, this would be transferred to another piece of steel. This in turn would be hardened, and used in the actual production.

Early in the 1900s, the craftsmen who did this transferring, noting that they controlled a key part of the process, combined to demand higher and higher wages. At last, the managers of the Bureau appealed to the Bureau of Standards, asking them for some process of preparing engravings for the production of money and stamps, which could by-pass this transfer production procedure. The Bureau of Standards responded, after a long series of studies and experiments with a process by which the steel could be plated with a thin layer of chromium— one of the hardest metals— and thus the original could be used for the actual printing.

It is not known how extensive was the actual use of this alternative procedure, but at any rate, it broke the monopoly that was embarrassing the Bureau of Engraving.

The process in due course was published by the government.
Edward Woodbury got hold of a copy of the report, and saw at once the possibilities, as the method might be applied to our work. He set to work, installed the plating baths, and ventilating hoods, etc. which looked like a wild Rube Goldberg mass of wires and switches, backed up by a big motor-generator to produce the direct current required. He then perfected the process of chromium plating of our photogravure plates.

I recall that it appeared to be no great problem to protect the copper plate by first plating it with steel, and then chromium. But the problem was to make the chromium go directly to the copper.

It is also to be observed that at the time there was no commercial plating concern which was able to put chromium directly on copper, electrically. In other words, in terms of existing technology, this chromium plating copper was a completely new extension of the plating art, or science.

The steel facing we had been using would protect the plate for 5000 prints. The chromium would protect it for almost 50,000. It is easy to recognize the enormous improvement in routine printing of engraved letterheads that this advance permitted.

It should be noted that during this period, if there seemed to be a problem with the facings, Edward would undertake a delicate, meticulous, time-consuming test of the bath to determine the exact proportion of chromic acid and sulphuric acid. On completion of his test, he would add a tiny amount of sulphuric acid or chromic acid to correct the balance. Later on, when this was Kimball Woodbury's responsibility, he would dump the old bath, and replace it with a new bath of commercial ingredients for about $3.00.

Some years later in the 1980s, we replaced Edward's plating installation with a whole new set-up in the new North addition, partly to comply with new Environmental regulations. It ran well most of the time, but we might suddenly find the plates would run only 5000 impressions, for no apparent reason. We had made no change in the chromium plating procedure. Perhaps it was the ink, suddenly become more abrasive, or perhaps a new batch of die wiping paper. At the same time the chrome facing didn't "seem a hard as it used to be", even though the baths, the temperatures, the power source, and plating time had not changed. But then the problem would go away as stealthily as it had come.

Then a new challenge presented itself:

It was not long after the beginning of the engraved letterhead business that it was discovered that there was a problem involved in making changes in the engravings. A letterhead often has officer's names as part of the lettering; and of course, these names inevitably change from time to time. A telephone number too, is subject to change (after the telephone arrived on the scene) The address of a branch office, the description of a product .... each of these matters are sometimes changed.

Before our entry into the engraved letterhead business, the producer of engraved letterheads used steel dies. And when he faced this problem, he had the choice of
abandoning the die and starting over; or going through a rather laborious process of changing the die, This process included: 1) softening the die (it had been case hardened after the initial engraving was completed) 2) drilling one or two 3/8 inch holes in the back of the die... leaving a thin shell of steel, perhaps 1/16th of an inch thick; 3) cutting out the lettering on the face of the die that has become obsolete, making in this as shallow a cut as possible, but being sure to cut out enough to completely remove the lettering; 4) with a punch set into the holes (item 2 above) pound up the steel where the lettering has been removed so that the surface of the die is still level; 5) engraving the new material that is to go into the area being changed 6) filling the holes in the back with brass and finally 6) re-hardening the die.

It can well be imagined that this long and laborious process was dreaded, and that in most situations the option of starting with a fresh piece of steel was the preferred alternative.

Now, Woodbury and Company was making letterheads from a copper engraving, where the copper was a sheet about 1/16 inch thick. The process of changing was much simpler, at least insofar as the mechanical restoration of the surface was concerned. After taking out the obsolete lettering on the face of the plate, a pound up from the back was not too difficult. The re-engraving was then performed. This left a shallow depression in the rear of the plate. Unless this was filled, under the pressure of printing, the copper would bend, and soon crack... and the plate would be ruined. Solder was tried as a convenient metal to fill the depression in the back. But under the pounding of making many prints, the solder would soon be squeezed out of place. At this point, we worked out a method of localized plating, a concept which was, we believe, entirely original, and which found an application in some other directions.

To fill the depression in the back of the plate, we would put the plate onto a plating machine which featured a STREAM of electrolyte (instead of being immersed in a bath). The matter was arranged so that the copper would be electrically deposited onto the back of the plate only where we had pounded it into a concavity, which needed filling. After the copper had thus been deposited, with perhaps some extra, the plate was removed from the plating machine, and the excess copper milled down so that it was smooth and flat.

Thus we had effectuated a change in the plate, so that the lettering was removed from the face, new lettering substituted, and the copper itself restored to its original thickness and smoothness.

From the standpoint of successfully selling engraved letterheads, this has real value and importance. For this made it possible for us to say to a prospective buyer who asks about making changes, “Yes, we can change the plate for much less than it would cost to start fresh with a new engraving, and what is equally important, we can guarantee to make changes in the plate even in the same spot over and over for as many times as you may ever want these changes made without having to abandon the original engraving.”
Emphasizing the fact that this kind of facility was unheard of in connection with engraved letterheads, this became a valuable feature of our sales “pitch.”

The ideas resulting from these experiments and developments included the idea of chromium plating electrotypes (used in newspaper printing) to make them much more durable and to chromium plate type to make it much more durable. Some attention was given to these two ideas, but nothing of commercial value appeared.

It was probably the result of the experiments in electroplating that another idea was canvassed. We worked out a method of making a copy of one of the photogravure plates, by a special application of the usual electroplating method. We would make a matrix of a photogravure plate, then using the matrix as a base, would make another engraving, which would, of course, duplicate the original. This effort was abandoned, no doubt owing to the fact that the commercial opportunity to use it was very likely to be very limited. It would be only in those cases where a customer wanted several letterheads all alike except for some feature such as a branch office address. In this case, we could make several duplicate engravings and put one branch office into one plate, another into the second plate, etc.

This is another of the many technical innovations which were dreamed up, partially developed and abandoned.

At this point in our history, we had mastered a number of technical problems in making a photogravure plate. But still remained the question of how to moisten the paper which was necessary to make a photogravure print.

Background. At the time when we first began making photogravure letterheads, it was the habit… the established custom, to print these letterheads on pre-moistened paper. When we began to print these letterheads on the power press, we found that the moistening was necessary in order to obtain a good print. If it were not moistened, the picture would be weak, granular and mottled in appearance.

The problem was solved in a way that involved the following: First, an additional shelf was built on the press at the left side, as you face the press. On this shelf was built a machine which was in fact a sort of jaw… on the lower side of this was a sheet of canvass which was kept constantly moist by a water feed. And there was a piece of cardboard cut out so that the wetness would come to the letterhead paper only where the picture was about to be printed.

A girl sat at this machine, at the left of the feeder, feeding the sheets into the jaw, one at a time. The arrangement was added so that the lower end of the sheet would be picked up and held up from the table, so that it would be easy for the press feeder to take hold of it. Thus, for the feeder, instead of taking a sheet off the pile of paper for each impression she simply had to take it from this auxiliary jaw.
Then, feeding the moistened sheet into the die press, the moistened part of the paper would come to the picture part of the plate, and since the moisture had softened the fibers of the paper slightly, the picture would come out clear and fully bright.

A patent was taken out on the machine and the method of printing with this patch of moistened paper.

Patent #1209097 covered this machine.

Patent #1209098 covered the "method of printing" using this machine and the idea of locally moistening. These were issued in December 1916.

In 1930, it was learned that a concern in Buffalo, which was named Bates Jackson and Company... was using and invention that they had made, which squirited a jet of steam at the paper in advance of the printing, obviously for the same purpose.

An agreement was made with these people, the actual names being Jackson, Hoehn and Gaskin... so that they could license the Carver Company, manufacturers of diestamping presses, to make and sell this device.

Unfortunately, nothing ever came of this.

We continued to use this moistening machine for many years. It was improved later by the use of a sheet separator invented by Edward Woodbury. Thus, the operator of the diestamping press which was originally a two-girl job ( one to feed, and one to lay out) and which became a three-girl operation when the moistening machine was added... now reverted to a two-girl job again.

At this point in our record, photogravure letterheads were being produced by power. The big power stamping press would produce them at the rate of perhaps 1200 per hour. Two girls would operate the press, one to feed the press itself ( taking the paper from the wetting machine) , and the other girl to "lay out" , that is, put the letterheads, one at a time as they were placed on the shelf at her left, by the feeder, onto a wooden rack, with the heading exposed. When ten of these racks had been filled with letterheads ( each rack would hold about twenty letterheads on it) the girl would callout "Ten racks" and one of the rack boys would come to the press, and the two people would lift the ten racks from the press table, and set them down on a wheeled frame, to be left there until the next day, thus permitting the letterheads to dry until then.

For some years, these moistening machines were in constant use when we produced pictorial engraved letterheads.

Some time later, date unknown, it was gradually discovered that moistening was not necessary.

This astonishing fact must have come about by the gradual change in the hardness of bond papers. It was probably first noticed that heavy all-wood papers printed without moisture without much trouble. Then the methods used for this, notably including heavier pressure than we were used to using, was applied to a constantly wider range of papers. Then eventually, it was found that we could actually print the hardest papers, down to 16# pound papers, without moisture, Often great pressure was required for this.
This factor of heavy pressure may have been more important than we realized anywhere along the line.
But the moistening machines were gradually abandoned and this evidently was associated with the development of new problems. The story of these gradual changes, their causes, and what was the final outcome is a fascinating story. It is fascinating partly because during the changes that are being recounted, we were probably not sharply aware of what was happening; and partly because after the completion we were, in a way, back where we started.

A very serious problem occurred in the early days of the production of photogravure letterheads.
It was called “feathering”
A word of technical explanation is in order. Imagine a cross section of a letter forming a part of the main line of the letterhead. The engraving of this letter would form a cavity in the surface of the plate. Then imagine the mechanical inking and wiping of the plate of which this letter is a part. The inking will leave the cavity almost level full of ink. When the bond paper is placed on the plate, it must be forced against the ink in the cavity in order to transfer the ink to the paper. To get this gentle pressure a woolen blanket is placed against the back of the paper. This blanket must be hard, and tough and slightly resilient. This resilience is important because it is needed in order to squeeze the paper into the tiny valleys that compose the photogravure picture. But when the pressure against the blanket and the paper is great enough to pick the ink out of the tiny valleys, it tends to press into the wider letters and squeeze the ink out of the heavier engraved letters. The result is that the ink squeezes out along the edge of the letter and makes a ragged edge of the letter
This is feathering
And it is a blemish of very serious importance when it is great enough to be visible.
All sorts of methods and devices were used to combat it; harder “counter”, a thinner blanket, more varnish in the ink, less pressure from the press. None was very satisfactory.
It should be noted here that when our competitors were told that we printed the picture and the lettering in the same impression, they simply didn’t believe us.
The matter was serious, for as we made photogravure letterheads, and were using the standard device of a blanket to get good prints, our competitors making engraved letterheads without any pictures could use no blanket ...i.e. a hard counter, and were thus relatively free from the feathering problem. As competitors, they made the most of our struggle with feathering when discussing our work with their prospects ( and our customers and prospects).
We had to find the answer.
Edward Woodbury invented the “moving blanket”, a device which prevented the blanket from becoming deformed, as it pressed into the letters many times in the course of making the prints. It tended to prevent the blanket from squeezing into the lettering, and greatly reduced the problem.
Chapter 2
The Decade of Change 1900-1910

Photogravure has traditionally been printed using a very heavy woolen blanket as a “counter.” It is this blanket which is used right against the paper, in making the impression. Thus, at the moment of greatest pressure, the blanket with its resilience helps to force the paper into the tiny lines and wells of the engraving. The resulting print therefore is a much better reflection of the delicacy and fine detail of the photogravure, than would be the case if some non-resilient material were used.

The tradition of the use of a heavy woolen blanket was followed in our own development of photogravure.

However, there was a problem. For the printing of the photogravure pictorial part of the letterhead, the worked beautifully. But the lettering was another story. It will be understood that when the thick blanket was pressing the paper into the engraved lettering, it would actually tend to squeeze the ink out, around the edges of the letter, resulting in feathering.

A similar and equally bad effect was caused by the tendency of the blanket to become hardened a little in the form of the lettering that was being printed. After the blanket was forced with great pressure into the individual letters a thousand times, the blanket would begin to show the form of these letters... the blanket would be slightly embossed with these letters. This made matters worse, in respect to the tendency to feather.

In passing, it should be noted that when we made letterheads from a plate or steel die with lettering only, we used a hard counter, so that there was little tendency to feather. It was our problem to solve this, on photogravure letterheads.

Edward Woodbury met this challenge. One of his many patents reveals part of the story. A moving blanket was invented. This device held the blanket on a frame, independent of the rest of the pressure mechanism, and moved the blanket a fraction of an inch, each impression. Thus, the exact area of the blanket presented to the lettering was slightly different each time. Thus we completely overcame the tendency of the blanket to become embossed with the lettering that we were printing.

This greatly reduced the problem, though it must be admitted that it did not overcome it. In sum, the moving blanket was found useful, indeed a necessary part of our mechanical equipment for many years. But eventually, experience discovered a combination of thin blanket covered with “moleskin”... an extremely strong cloth, faced with a tough, hard, rubber-like surface, which would work. The combination gave the slight resilience needed, but without the tendency to squeeze out the ink from the lettering, or become formed into it.
The business needed an appropriate emblem. A striking example of a bald eagle, beautifully mounted, was obtained from a Boston museum. It was carefully photographed. And this picture of the eagle swooping down on outstretched wings became the emblem of Woodbury and Company from about 1901 to the time the company closed.

Its appropriateness is obvious. It could hardly be improved as an emblem for a maker of "Bird's-Eye-Views" ... and of course, the bald eagle has always been a favorite for suggesting aggressive superiority in any field.

One carping critic has complained that one wing of the bird is apparently broken. That may of course be the truth, but despite this, the picture has been universally admired. A great many prospective buyers of letterheads have offered to buy if we would use this picture for them, a suggestion we have always refused.

I sometimes have believed that we have been better known for that eagle than for our letterhead work. "Oh, you're the people with that beautiful eagle!"

Beginning in 1910, we had made the decision to risk everything on the success of the photogravure letterhead business.

The outlook was clouded by the fact that people buy their letterheads only about once every two years; and of course the concerns that will even consider something new and different are a very small percentage of those who are in immediate need of a fresh supply. This obviously made the selling of new letterheads a matter of slow, long term cultivation of hundreds of prospects.

Also, the idea of photogravure illustrated letterheads involved a new kind of design, and people who were conservative by nature and who would wish to use the most conservative kind of stationery would be slower to adopt something as radically new as this.

In addition to these inherent problems, all "outside" advice was against the project. As described elsewhere in this record, friends of John Woodbury were quick to tell him that people would not pay the high cost of photogravure engraved letterheads.

But despite everything, a start was made. A man was employed to make sketches, drawn in pencil or ink on a piece of photographic paper, to show a prospective buyer how a finished heading might look. As the prospects were given a look at the few samples we had already produced, many, if not most of them would exclaim, "I never saw anything like these, they are beautiful!"

The beauty and originality of the work was successful in selling many prospects. During the second decade, we began to build up a modest volume of letterheads.

The technical problems had been met, by the brilliant work of Edward Woodbury. He had worked out an adaptation of the basic photogravure etching method which would withstand the bruising and abrasive wipe of the power press. And he has found out that, with pre-moistened paper, and a few other adjustments and gadgets, photogravure pictorial letterheads could be produced by power.
Chapter 3
Struggle to Survive 1910-1920

The reader should note carefully at this point. Woodbury and Company’s contribution to the Graphic Arts, and the matter on which our early growth was entirely based was this: WE HAD FOUND OUT HOW TO MAKE PHOTOGRAVURE LETTERHEADS BY POWER, AN ACHIEVEMENT NOT HITHERTO ACCOMPLISHED BY ANYONE.

The production of engraved letterheads, without a picture, was becoming common, and had reached a high point of customer acceptance. But if a picture was to be included, it had to be done by the expensive and old-fashioned-looking hand engraved “steel engraving style” of picture.

As elsewhere described, hand printed photogravure letterheads could be made, if expense was not a factor.

At this point, Woodbury and Company had worked out the solution to this problem--how to combine the advantage of both.

The growth was slow. The problem was finding people who would listen to the story of beautiful pictorial engraved letterheads. This is slow, expensive work. Then too, all our cost-analyses have consistently indicated the cost of selling a new customer is so great that the first order for such a new account produces a net loss. It is only after one or possibly two repeat orders have been received that the customer produces a profit for the company. Thus, in the early years of this developing letterhead business, the net profit from letterheads was extremely slow in developing.

The author of these notes had graduated from high school in 1910, and became at once the bookkeeper of the company. This continued for a year and a half. Then, after three months at college, it was found necessary to quit school for an appendicitis operation; and rather than return to school, it was decided to resume the bookkeeping work until the following fall. During this time, there was a good opportunity to make observations, and these will become a part of the record of this period.

The quarters occupied were on the top floor at #4 Walnut Street, facing Walnut Street, with the top of Grace Church directly across the street. The lower floors were occupied, predominantly by music teachers, both vocal and piano, so the working hours were often filled by the practicing of neophytes, and the running of scales.

It must have been about 1910 that we borrowed a Waite Press from the Hill Division of the United States Envelope Company. This press was moved to a room that we had hired in the rear of 274 Main Street. The test was immediately so successful that we ordered two more of the same kind, and when they became available, they were installed in this factory loft. I recall, also, at one point during that period, it was casually noted that Ed Barrows, the Sales Manager and Axel Sternlof, an artist were spending much time in “conference”. It soon turned out what “they were up to”. For they resigned, and announced that they were setting up a partnership for the production of commercial art in Detroit.
Another detail of this time which was, I think, interesting was the habit of Edward Woodbury to call a conference with John C. Woodbury... and I was usually included. The burden of Edward’s discussion was simply that “Things were going very badly, and what was going to be done about it?”

Sometime before 1915, the rooms at #4 Walnut Street were abandoned and the office moved to 274 Main Street. This involved the abandonment of the Art Department and the photograph rooms... The room that had been devoted to hand printing of photogravure.

For we had staked all upon the success of the photogravure letterhead work. There was no cutter for the paper. We had to take the paper in folio size, by truck, to a “trade” cutter in the new Graphic Arts Building on Foster Street, have it cut to letterhead size and returned to us. Much of the handling of the paper, I recall, fell to my lot. I would put the cut paper into letterhead boxes for easy handling, and stack it into bins marked with the name of the customer to whom the paper was assigned.

It was at this point that I designed the “schedule board” which has been used ever since. A piece of cardboard about an inch wide, with a length varied to the length of the run, carrying the name of the customer, the quantity ordered, and other details significant to the pressroom’s work on the order.

Ward Robinson had been hired to make sketches for us, He found that the loft building shook a good deal from the use of heavy machinery upstairs, as well as those that we were running. This made it difficult for him to do his work. So we hung a platform from the ceiling with springs, to keep it from shaking. It should be noted that “Robbie” continued to be a valued member of the team for the rest of his life. (I, KRW, remember visiting him in the hospital when he was about at the end of the road, when he urged me to allow him to continue to be Foreman, which, of course, I did.)

It was during this period that we were extremely hard pressed financially. The bank had loaned us some money, I do not know how much. But when the loan was due, we could not pay it. The loan was renewed a few times. The bank finally put the account into the hands of a prominent lawyer, Mr. Charles M. Thayer, the leading partner of one of the largest and most well known firms in the city, to collect. John C. Woodbury called upon him. “You can put us into bankruptcy if you call the note; and that way you will not get much of anything, for we are insolvent at this time. However, I am confident that if you do not take this action, you will eventually get all your money.

The confidence he thus expressed must have seemed to the lawyer the kind of groundless optimism that so many people, in the midst of their financial troubles often display. In this case, it was no doubt based on the fact that the letterhead business, while still very small, did actually show signs of being eventually profitable. Be that as it may, the lawyer recommended further delay without action... This advice was followed and the bank was, of course, finally paid off.
Another episode in the financial story of this period was the Hammond affair. As has already been well indicated, the company was very short of cash. In 1912, we had just moved from Walnut Street to the loft building in the rear of 274 Main Street. We were starting in a determined manner to sell photogravure engraved letterheads, and allowing all the sidelines or ideas to be set aside. But the profit was still missing. We received an application for work from a Mr. Hammond, who offered to lend us $10,000 if we would employ him. This was very tempting. We needed the money, so we hired him.

It is not now known how long it took us to discover that he was not an effective employee. Nor are we now sure, what his assignment was. At any rate, after a few months, he seemed to find his work in routine handling of shipments, and receiving paper as it was shipped in to us. In other words, his capabilities seemed to be limited to jobs of this limited kind. Finally, the obvious decision had to be made, and Mr. Hammond was told that we could no longer use his services.

What about the $10,000 we had borrowed? “Well, we’d take care of that as fast as we could.” Right at that time, to repay his money was a heavy burden indeed. But it was completed at last. And the payment of the money to the Worcester Bank and Trust Company was also eventually accomplished.

From that point onward, things began, very slowly to “look up.” We began to show a small profit. At one point, we established the fact, with considerable pride, that we were able to clear $100 per week from the operations. We could still use money. Nobody in Worcester would give us anything, and we canvassed Boston for some money for borrowing. No result there. So we had to get along without any borrowing.

One of the men who was employed during this period to assist in the making of “Bird’s-Eye-View” drawings of factories was Albert W. Nelson. He became an apprentice under the guidance of John C. Woodbury. Another young man who had joined the company a few years before in the same department was Albert Norris. Both of these men were individuals of real talent for this specialty.

It is interesting to see how the paths of these two diverged. Mr. Norris, after a few years, left the company and set up for himself in the making of “Bird’s-Eye-Views.” He was, it is understood, moderately successful. An odd point to this story is that, when he left, the conditions were somehow painful, for they gave rise to a degree of animosity between Messrs. Norris and Woodbury. The details of this are completely unknown, and they are not important to this story. But it must have seemed important to the participants in this story, for, years later, when the author of these notes happened to meet a brother of Albert Norris at a social gathering, he immediately launched into an apology for the way his brother had acted!

Meanwhile, Albert Nelson, who, it may be assumed, had received the same kind of
training, attention and encouragement became an increasingly valuable member of the work force. Soon after he was employed in 1915, knowing that Mr. Woodbury was increasingly hard-pressed financially, he offered to buy a few shares of company stock from Mr. Woodbury. This, as he must have known very well was either a loan or a gift to Mr. Woodbury, for by any realistic standard the stock had no value whatever at the time. His offer was gratefully accepted by Mr. Woodbury. The result of this transaction was that Mr. Nelson became the only person outside the Woodbury family who owned common stock in the company until many years later. Also, it may be noted with some satisfaction to all concerned that Mr. Nelson’s stock paid dividends continually beginning in 1922 and with stock dividends, and splits, that developed some years later, now (1967) had a nominal value of $15,000.

Although Mr. Nelson worked very effectively into his late 70s, he did not wish to be retired, so he decided to retire, but remained a frequent visitor until he passed away in his late 90s. When he died, he left no family, but his home contained many of his beautiful water colors which we all admired. The Executor of his estate suggested that we send our Art Director, Mr Harold Bailey, whom Al Nelson had trained, over to Al’s house and pick out any paintings Woodbury and Company might like. He picked out a dozen or so, which were framed and hung in the offices and art department of the company.

It was not unusual for us to be very short of cash, and in preparation for the payroll, we would often find it necessary for me to get a shipment into the hands of a customer quickly, and offer 5% off for cash, so that I could take the money back to Worcester in time for the payroll.

At the time, the office of the company occupied an area of about twelve by thirty feet. It was about 1916 that the Svea Publishing Company, which put out a Swedish language newspaper, abandoned their place on the south side of the building we were in, which permitted us to enlarge our area by a big percentage. I think nearly 50%. It was not long before we filled this additional space with presses and inspection tables.

This loft building was one of the fairly large group of buildings owned by the Day Trust. Whether the management of these buildings had anything to do with it or not, the fact is that they were highly fire-prone.

On one occasion, there was a bad fire in the building facing on Main Street. The writer had been working in Springfield, selling all day. As he took the train for home, he bought a newspaper which told about the “fire in the Day Building” and in the story were listed the firms whose quarters had been burned out, and Woodbury and Company was among those listed. Upon reaching the railroad station in Worcester, John C. Woodbury was phoned, and he was asked about how things were. His reply, it seemed was a rather weak attempt to persuade the writer not to worry too much. But it finally did develop in the conversation that actually our part of the building had not be burned, and that the reporter must have listed us because we were listed in the directory as occupying space at this address.
Soon we needed more room, and spread into the front building, that is, the one facing on Main Street... though our rooms faced only on the courtyard. We needed better communication between the two areas, so we built a bridge from one building to the other across the courtyard, and since there was one story difference in elevation, this bridge was a staircase. Impossible to use for trucks, but possible for human beings at least to move up and down it.

The writer joined the company in June 1915. He began to be restless within a year or two, wishing to see the industrial life or commercial life from some broader viewpoint than that provided by our concern. The World War I provided the opportunity. A tentative approach was made to the "Shipping Board" with a view to getting business experience, but this produced nothing. In April 1917 he enlisted, being given the rank of Sergeant, "because he could run a typewriter".

For the rest of the decade, until 1920, the company continued busy and with consistently rising volume. Too, there began to be a profit which was sufficient to cancel most of the doubts and struggles that had for so long dominated the thinking of the leaders of the company.

During the war years, an episode occurred which might have had disastrous consequences.
The Day Building complex had "another bad fire"... The word "another" here is used advisedly, for the large group of buildings, many of them very old, had acquired an evil reputation in the matter of fires.
This fire occurred in the writer's absence in France, so the circumstances and details that are related here are "second hand". The fire raged through the loft building in which we were located doing especial havoc to the building to the west of the alley that leads off the alley that leads from Main Street north of the Day block.
By what seemed at the time to be nothing short of a miracle, the east wall of our loft building, and the beams that were planted upon it, withstood the flames, although almost all the rest of the building was thoroughly gutted.
The important point of this is, to us, was that the row of presses--there must have been about six of them at the time, four along the east wall, and two along the north wall, were heated... the wooden platforms and shelves around them destroyed, but the presses themselves were unharmed.
Had the beams that held up the floor been weakened to the point of collapse, these presses would have been dropped into the basement and been totally ruined.
To find replacements, arrange for the necessary modifications and get them ready to run would have been such a long and expensive process that the company might easily have failed to survive.

The author of these notes returned to work in the summer of 1919, and continued to serve as chief administrative assistant, with Edward Woodbury the technician and
During the war years, 1914 to 1918 there were some unusual problems that were connected with the war, and its economic effects. One of these problems was the ink. Before 1914, photogravure ink was almost a monopoly of the German ink makers. They had achieved the right combination of tintorial power—which had to be high—with an oil base which was correct, smoothness for wipability, ability to dry in a reasonable time, etc. Traditionally it was believed that one reason for the superiority of German photogravure inks was that they were made on the basis of charcoal made from grapevine grown in the Rhine valley. Apparently any other kind of charcoal would not do.

With the coming of war in Europe, August 1914, the importation of this commodity to the United States entirely ceased. The burden of supply fell upon the American ink makers. Some of the American firms had their roots in Germany and were run by German-Americans. The Rudolph Faust Company served Woodbury and Company from this period, right up to the time the company closed. But even with these advantages, these firms were unable to meet the demand with ink of equal technical quality.

Trouble mounted rapidly. Sometimes the ink would be much too greasy When the letterhead was printed with too greasy ink, there would be a line of translucent paper around each heavy letter. The letterhead was therefore quite “impossible.” Sometimes the ink would not dry with a smooth surface. It would dry “lumpy.” This is unacceptable.

But the worst problem was the drying. The domestic inks would not dry. Normally good (the German) ink could be printed, the letterhead laid out on a rack, and by morning, ten hours later, the letterhead would be dry enough to pick up. But with the American substitute ink, this normal drying routine was often quite inadequate. The next morning the letterheads would still be far too soft and sticky to pick up. If we misjudged the dryness of the ink, and went ahead and picked them up and stacked them in the normal way, we would find that the next day, they would be all stuck together, and some ink would have offset onto the back of the sheet next to the letterhead. At this point, two or three girls with erasers would be put to work erasing the offset. A more discouraging and wasteful task can hardly be imagined.

The whole problem was attacked energetically. We built a stack of vats, five feet square and two inches deep, into which was sprinkled calcium chloride crystals. This chemical has the property of absorbing water from the air. The stack of these vats, perhaps fifteen of them, was placed at the end of the pressroom with fans to blow air across and through the stack. Then at the end of the day, the heat was turned up, so that the air in the pressroom was heated to perhaps one hundred twenty five degrees. This heat, with the artificially induced dryness in the air was expected to aid in the drying of the letterheads which, of course, were laid out on racks which filled the whole pressroom. Next morning, the calcium chloride would have extracted perhaps five gallons of water from the air, and the letterheads would have reached a condition of dryness that would permit handling them.
ARNOLD PRINT WORKS
BLEACHERS, DYERS, PRINTERS, FINISHERS OF FINE TEXTILES

Master Craftsmen Since 1869

NORTH ADAMS, MASS.
Elmira Floral Products
INoRORRATED
Rose Growers and Wholesale Commission Florists

ELMIRA HEIGHTS
NEW YORK

“SAY IT WITH FLOWERS”
Perhaps it should be noted that these problems were related to the high tintorial power that we required in the printing of the photogravure picture plates. Die stamping i.e. lettering only, requires no special high tintorial power, and therefore inks of very different characteristics could be used. These different characteristics permitted the development of formulations that would dry easily. Competition, which was at this time eagerly watching our progress, would often try to print our plates, and by using inks that were appropriate for die stamping would find that they fell far short of the brilliant result that was necessary in order to meet the standard that we had set. Thus, the high tintorial power of the “true” photogravure inks was a significant detail of our superiority in quality. The problem of obtaining quality photogravure inks continued to plague us right up to the time we closed. Because the market for photogravure inks kept shrinking, fewer and fewer ink manufacturers made it. We had to maintain a supply of additives to meet individual jobs, like “strong” black i.e. with extra high tintorial power; white, to facilitate wiping; special varnishes to improve drying, toughness and contour of the finish. Some of these additives we were able to buy from English ink manufacturers. I remember one period when we had a problem with blue photogravure, our second most popular color, when the ink dried soft and chalky, and easily rubbed off when handled. We seriously considered admitting that we could not run blue photogravure. We ultimately found a varnish would solve the problem. Our pressmen mixed the colors right on the fountain on the press. Starting with the basic color, they would ladle in additional colored ink to match the sample. They were good, but this often resulted in a messy overflow from the fountain, piling up in thick layers over the back of the press. And some colors would change color when run through the dryer. There was a demand from the industry for ever quicker drying inks. This demand resulted in water based inks (like acrylic paints). This was fine for the social engravers for wedding invitations, but surely not for photogravure. If the press running this quick-drying ink were stopped for a moment, the ink would dry hard in the plate and on the rollers. But even worse, it had a dull surface finish, much like litho, which lost entirely the beauty of the highlights and shadows that made engraved prints so distinctive. Unhappily, the commercial designers, who were beginning to influence letterhead design, liked this matte appearance which separated it from the “glassy” appearance of thermograph. By the time we closed, Rudolph Faust was the only ink supplier who understood what was required, and continued to make photogravure ink. At the time we closed, Faust was working on, and had almost achieved a quick drying, water-based photogravure ink. During this recent period, the ink manufacturers were struggling with a whole new set of environmental rules regarding the ingredients and solvents they were permitted to use.
It is interesting to note in this connection, that other engravers were not satisfied with the ink maker’s efforts. The Engravers Research Corporation spent some $50,000 trying to establish an ink formulation that would produce an ink that would dry in the air in 10 seconds, and thus get rid at once of the expensive parts of the die stamping process. There may be different opinions on the point, but an unprejudiced observer would be inclined to conclude that this effort was wasted, since the ink makers, at the same time worked out an ink that would dry in a few seconds, and this ink has been commercially available now for many years. It is used by engravers who have specialized their work sufficiently to take advantage of it.

All this time over a period of perhaps thirty years or more, the chemistry of the ink was at times a very serious problem. We spent thousands of dollars trying to learn enough about ink formulations to help us in our work. Of course, the average engraver has to rely on the ink makers for their knowledge, and for the supply of usable ink. We were under such pressure for some years, that we thought we could not afford to wait for them to perfect the art, or science of ink making for intaglio printing. So we tried to do some of this ourselves. The fact is, as is now quite clear, that this effort was a waste of time and money.

On a slightly unrelated point, Rudolph Faust had an elderly salesman who had been on the job for many years, and became a legend in the industry. It is unclear whether he knew much about engraving inks, but he surely did know what was going on in the industry. It was always a pleasure to have him visit, and fill us in on who and what was happening with our friends and competitors.
Chapter 4
Expansion 1920-1930

It must have been in the early 20s when Edward worked out a device for the Waite press that was hoped to save an important amount of ink.

We called it a “Doctor blade” (I've also seen it referred to as a “Ductor Blade”).

The Waite press had always been manufactured in England, (Though we had some that had been pirated and built in the US.) The company which developed it, also made many other kinds of printing machinery. After the first series of die presses had been put on the market, they developed an “inverted” model (which was really the right-side-up model).

In this inverted model, the plate, instead of being face up in the press, was face down. This had two advantages. First, the resulting print was face up and could be handled for drying, etc, without being turned over. Secondly, a doctor blade could be applied to the inked plate with much greater effectiveness. The doctor blade is a piece of thin sheet steel, which, in this context, would be used to scrape, or cut the ink off the die. As this piece of thin steel was pressed against the plate, the ink scraped off would simply run slowly down the doctor blade into a container that was placed there. The whole point and purpose of a doctor blade, was, of course, to save ink. A steel blade of this kind could cut the ink off the plate cleanly, and without any contamination of paper fibers. It was clear from the beginning that when properly adjusted, a doctor blade on this inverted press could save a very large proportion of the ink.

There were new problems that developed when a doctor blade was used without a following stroke of paper wipe... but that is another story.

There appeared to be a challenge for us in the fact that a doctor blade could be used to save ink.

This was developed by Edward Woodbury. It was successful in its mechanical operation. The plate was, of course, face up. So the doctor blade had to be pressed against it downwards. The ink would not flow up the blade (as it would if the whole thing was the other side up) so a device was designed so that the doctor blade was raised and cleaned, between each impression.

Here again, the thing was mechanically successful. It saved a lot of ink. But the bother of keeping the doctor blades sharp, the accessories all in working order, and the difficulty of routine cleaning of the plate in operating the press with the doctor blade and cleaner in the way... all produced the conclusion that the ink saving was not worth the bother.

In the 1930s, there began a development of automatic dryer equipment. This accentuated the difference between photogravure ink and die stamping ink. For the latter could be dried relatively easily, and the commercial forms of auto dryers that had gradually taken their place as a standard part of the engraver’s equipment were all quite small and short. The photogravure inks would not dry so fast, and required much more time exposed to heat than could be achieved on the short-belt dryers. This situation produced a unique design of dryers that Edward designed and built at the time.

It was called a WHEEL DRYER.
The date is uncertain but it is now thought that about 1925 the drying ability of the ink used in power engraving, had been improved enough so that a letterhead would dry in the air, in about ten minutes. This was much better than “over night” drying which required the use of racks as earlier described.

The problem then was, how could we arrange to give the prints, as they came off the press, ten minutes exposure, in an automatic way, and with a minimum of human work. This wheel dryer was the answer.

This wheel dryer provided an automatic drying period exposed to the air of ten minutes. It also had the great advantage that, if it proved important, that it could be heated, so that the drying process could be accelerated.

The wheel dryer consisted of a large wheel, about ten feet in diameter. On the periphery of the wheel were welded a series of steel trays, of a size that would take one letterhead. There were three hundred and sixty of these trays on the wheel (one to every degree).

In operating the press, as each print came off the press, the feeder would place it on a canvas belt which would move the print toward the wheel, and then it would be picked up by a suction arm, and placed on a tray that was in exact position to take it.

The wheel was geared to turn one degree for each press impression. Thus, as the next print came off the press, another tray would be ready for it. Thus, the wheel would be filled with drying prints... 360 letterheads. When the wheel had made a complete turn, the prints would have been exposed to the air for ten or more minutes, and would be dry.

As the rotation of the wheel was almost complete, a suction arm would be extended into the tray and the letterhead which was now reaching the end of the drying process, would be removed, and placed on a pile of dry prints. And the tray would move into position to take another print.

The whole structure was enclosed in a sheet-rock box, making it possible to heat, and thus accelerate the drying process.

For years, this device was successful in facilitating the drying process of standard letterheads, both 8 1/2 x 11 and 8 1/2 x 7 1/4.

It became obsolete when the ink manufacturers improved their formulations to the point where the ink would dry in perhaps fifteen seconds, instead of ten minutes. This great improvement permitted the use of a ten-foot-long moving belt which carried the prints under heaters. As each print arrived at the end of this moving belt, the prints were dry enough to pile up and handle.

An interesting story is told which illustrates the fact that when an attempt was made to dry the prints fast, it would require a high degree of heat. The story is that one of our competitor’s customers complained on receipt of some plain second sheets that they were not the same color of paper that he was accustomed to on his letterheads. Investigation revealed that the letterheads in the course of being dried were actually tanned. So that fresh paper of the same make looked whiter. The cure, incidentally, according to the story, was to run the plain paper through the dryer, and tan it to the same degree.
By 1966 the drying problem had changed so much that the wheel dryers were deemed obsolete and dismantled. Being considerably more flexible, the usual open belt dryers were made and substituted.

By 1920, we had reached an annual volume of $165,000. 1921 will be remembered as a short, sharp depression year, but the effect on our company was not serious. We were reaching a period where in retrospect, our unique style of pictorial letterhead was achieving marked acceptance. Nobody else even pretended to match it. Everyone in the Graphic Arts at all associated with this kind of work, assumed that when they saw an engraved pictorial letterhead, it must be one of Woodbury's. We had begun our letterhead work thinking mostly of "Bird's-Eye-Views" of factories. This continued for some years to be a large contributor to our volume. But about 1920, we awoke to the fact that there were many things that we could picture on a letterhead besides a "Bird's-Eye-View of a factory. For example, a great many banks had splendid buildings, and were eager to exploit them. That was the height of the "Greek Temple" period of bank architecture. And the banks that did not have a "Greek Temple" to picture were good prospects for something else in the way of a pictorial letterhead. They sometimes had an emblem that could be reproduced in "full tone", that is, photographically. Sometimes, they could be persuaded to show some local landmark, a statue, or a tree, or a bridge. Too, architectural detail of the building was frequently exploited. A doorway, a tower, a clock etc.

This was the period when almost every town had a Savings Bank and a Commercial Bank. We were able to sell a lot of them, and at one time we probably had half the banks in New England and New York as customers. In more recent times, most of these small banks were absorbed by the giants, and that large source of customers and prospects disappeared. Industrial prospects were often sold on a picture of their product....A machine, a box, some textile material etc, etc. The list was endless. During the latter part of the 1920s we developed a scandalous degree of poor service. Orders were coming in faster than we could produce them. We couldn't think of turning away any business. of course, so they just kept piling up, undelivered. It is not a matter of record how far behind we got on deliveries, but it was very bad. We did constantly increase our production capacity, but not fast enough.

This probably the best place to insert a comment about a new process, or design effect that we began to include on our letterhead designs. We called it phototint, even though it had nothing to do with photography. On many designs, particularly the non-pictorial ones, an addition of an attractive tint in the basic letterhead color, either carefully defined or beautifully vignetted, i.e. with soft edges, added a great deal to the design. These tints were added to give interest to the design, or to improve its artistic composition.
When the tint was to be carefully defined in area, as in a trademark, or a band across the top of the letterhead, the engraver would carefully outline the area of the tint in the plate. Then a piece of carbon tissue, (like that used for photogravure etching), which had been exposed to a screen, would be laid on the plate, and developed, leaving the lines to be etched. The plate would be carefully painted with asphaltum to protect it against the etching acid. The tint would then be etched to the desired depth. The vignetted tint, sometimes called a mezzo tint, required somewhat more skill to produce. A “dust box”, a metal box about a foot cube was built by Edward. This “dust box” had a fan installed inside to agitate the very fine asphalt dust that lay in the box. The box had a slot along one side of the base in which to insert the plate. The etcher would place the plate in the bottom of the box, start the fan to agitate the dust, give the box a couple of sharp clouts with a hammer to free up any dust in the bottom of the box. He would then carefully measure the time necessary for the dust to settle on the plate. He would then carefully remove the plate and hold it over a Bunsen burner to melt the dust onto the plate. He would then carefully brush on the etching acid, starting in the middle of the area to be tinted, and slowly working out to the edge of the area. This would produce an area in the plate that was etched to approximately the right depth in the center of the area, gradually becoming shallower toward the edges, which produced a beautiful vignetted tint. As an aside, it should be noted that the room where the dust box was located was next to the front office, and when the etcher was preparing his plate, the bam-bam-bam of loosening up the dust became a standard part of the front office noises. By the 1980s the tints were beginning to be considered old fashioned, and their use was no longer part of our designs.

In passing, during the twenties, we were still making many letterheads of factory pictures. One of our more active sales outlets was Mr. Moyer of Philadelphia, a well known “Bird’s-Eye-View” artist. He made a great many such pictures, and he had the interesting habit of making them all VERY LARGE, and he sold a good many letterheads from them. When we made an arrangement with him to represent us in his area, he naturally turned to all his Bird’s-Eye-View customers as prospects for letterheads… and they were indeed excellent prospects. But he imposed on us his penchant for making the pictures BIG; by insisting that when we reproduced them on a letterhead we make the BIG on the letterhead itself. Thus when we made a letterhead design for Moyer, we found ourselves making the picture on the heading often six or seven inches in dimension from left to right. It didn’t matter that we thought this was poor design, But it did matter that this required, even with moistened paper, an excessive degree of pressure to print them. The poor design was, after all, a matter of judgement. And if the customer really wanted the picture big, that was his privilege...
But the pressure required soon became a problem. When one stands by one of those big die-stamping presses, as it prints a letterhead, it is possible to see the great iron casting that forms each side of the press, actually being distorted by the pressure. Very likely the designer of the press allowed for this to occur, for this produced a longer "dwell" at the point of maximum pressure... and this was good for quality printing.

But the designer of the press certainly did not expect that the pressure applied would be so great that the castings would be broken.

Broken, they were. First one and then another of our big heavy 4x8 die presses were broken. The side would split right through.

This could be repaired by welding, of course, and this was done Welding a casting of this size was a major challenge.

There was some difficulty involved here to reform the press-side to the original dimensions, but we “got by” for awhile by welding the presses as they broke.

The 4x8 presses were much heavier than we needed for ordinary diestamping of the sizes indicated (Note, in 1960 much diestamp letterhead work is done with a 3x7 die press.)

This easily suggests that they were being regularly overloaded.

The breaking of the presses became very serious in the period from 1927 to 1935. What was the answer?

The answer was to enclose the whole press in a great frame of steel beams to prevent the press sides from spreading or bending under the pressure of the imprint, to the point where the casting would actually break.

At one point (exact date not known) most of our presses had these great steel frames around them.

But, as is well known in the medical field, it is difficult to perfect a cure, without producing some unwanted side effects. In this case, the side effect was that the resilience of the iron casting had been totally lost, when it was held together by a steel frame. And this lack of resilience meant that the quality of the print was lessened.

This showed up in a curious way. It was found that when the pressure was, in effect suddenly built up to the required degree, it would, naturally fall away from the maximum degree of pressure with equal suddenness. When the pressure is reduced with suddenness, there is a strong tendency for the ink to “spit” or “snap”... Ink usually has a characteristic referred to as “short pick” or “long pick”. It has long pick when, if you ink two fingers together, and separate the finger quickly, a string of ink forms that sometimes is a half inch long. When the string of ink is finally broken, it naturally snaps and falls against the two surfaces that formed the ends of the “string”. Putting this in terms of letterhead printing, what happens is that the lettering shows minute strings of ink running out from the lettering. While this is small in dimension, it is a blemish that is intolerable.

The end result of all this was the gradual abandonment of the steel frames around the presses. During this same period, there was a constant policy-pressure away from the excessive size of pictures. At the same time, of course, we recognized the importance of having bigger presses available for the very heavy jobs. For this reason, we purchased
whenever they became available, Waite diestamping presses in the 5x9 size. We also bought one press with a 6x10 platen to do the work that even a 5x9 could not handle.

The 1920s saw one of the most significant developments in the company’s history. That was, of course, the purchase of land at Chadwick Square, and the building of the first section of our present factory building. The date of this first building was 1924. There was no contractor. We hired a Foreman, a Mr. Andrews, who hired his own carpenters, etc. ... and the building was built in very good shape. There was a slip somewhere in the figuring, as to elevation. When it was discovered, it was too late to change. The result was that the ground floor of the building was 6” lower than we intended that it be. This has always troubled our sewer drainage, and has made more difficult, the handling of water when it flooded the lawn.

The original part of our present factory contained 14,000 square feet of space, plus the boiler room. It was necessary to add to it twice before the passage of five years. First an extension eastward of the engraved pressroom, and secondly the main stockroom on the north, which involved at the same time the expansion of the office space on the ground floor, as well as on the second floor. A recitation of the next half dozen or so additions will not be undertaken here, as they get rather complicated. Suffice it to say, we ended up with about 60,000 square feet of space by the time we closed.

This was a period of rapid expansion in the production of engraved letterheads. It paralleled the general expansion of business throughout the United States. In 1929, our volume, as measured by billings almost reached $500,000. Our production facilities were very much overtaxed, and our deliveries were scandalously poor.
It is a characteristic of our “sales curve” that it follows “general business” with a distinct lag of three to six months. This has been repeatedly confirmed by experience. This makes management decisions relating to expansion of facilities or contraction of personnel relatively easy. Another characteristic is the obvious fact that since our work is wholly making our products on specific order, we have to produce promptly what has been ordered, and there is no opportunity to produce for stock or according to some general forecast as to what will be salable.

All this was the basis for the period of drastic and very painful adjustments that began in 1930.

The stock market debacle occurred in the fall of 1929. Many businesses began at that time to suffer the initial disturbance that ushered in the GREAT DEPRESSION. But for Woodbury and Company, the downturn did not arrive until the summer of 1930. From that point onward, contraction and adjustment were the order of the day.

The bottom of the depression is often identified, in the history books as late 1932: but the bank closing which was such a dramatic episode, was March of 1933; and for Woodbury and Company the lowest point in sales was 1933.

From a total billing in 1929 of about $475,000, the figure fell to a low of $168,000 in 1933.

A few remembered items in the story will emphasize, perhaps better than statistics, the pressure of the times.

With employment at an extraordinary low point, wage cuts were common. We made a 10% wage cut in 1931(?) ... and with conditions constantly worsening, the matter came up again for consideration a few months later. Another 10% cut was ordered, but this time, we qualified the policy by ruling that, if this second cut reduced an individual’s pay for the week to less than $10.00, the second cut would be omitted from the computation. A rather interesting reaction to the second wage cut was the spontaneous response of several employees to the effect that they almost welcomed it, knowing that it was necessary for the survival of the company.

Selling was extraordinarily difficult. Our effort included programs that, in retrospect, seem amazing.

One of these programs was to send production employees out on the street, with samples, trying, despite inexperience, but with great determination, to find someone who would listen to a sales talk about letterheads. Needless to say, most of this effort seems to have been wasted, at any rate, it had little result. One exception to this might be noted. Mr. Ray Payne, the head engraver, was one of the men who went out trying to sell during this period; whatever result he may have obtained is not of record, but it is clear that he liked the work, so that some years later, he requested a chance to transfer to the sales department. A territory centered in Albany was created, and at that point, he became one of our very successful salesmen. He remained on this assignment until his retirement in 1966.

Another part of our sales program was the employment on straight commission of any man who wanted the job (this is the way it seems in retrospect.)
I well recall a sales conference in Philadelphia during this period. I think that there were ten men around the table at dinner in the hotel.
Three of them were "regular" men, George Murray, then in charge of the Philadelphia office, Bill Decker, recently employed by Murray in the office there, and a third whose name escapes me. Several other men who were working on straight commission were in attendance.
There was a superficial gaiety about the conference, but underneath, the gloom was so thick, "you could cut it".

It was in the latter part of the 1920s, I think, that we began to have serious competition on our Photogravure letterhead work. Other engravers had been experimenting with printing the plates we had made, and while many of them succeeded only in spoiling these plates, some had been successful enough to warrant their continuing the effort.
Probably those who were not successful failed because they tried to use diestamp ink, which did not have sufficient tintorial power. Others failed, and this was the greatest number, because they did not know how to protect the plate against wear. (By that time we had perfected the chromium plating procedures, and almost no other engravers were equipped to do this.) The result was that our competitor would take the plate his customer delivered to him (the plate we had made) and it was obviously made of copper. This, he knew, would not withstand any wear at all, so he had it plated by some commercial plater, perhaps with iron or chromium. Then he would put it on one of his diestamping presses and run it until it began to show signs of wear. By that time the plate, especially the picture, was badly damaged. Perhaps frightened by the prospects of a bill for damages, and in any event, obliged to admit his failure, he would take the plate off the press, return it to his customer with apologies. These were the failures. But there were many successes, and these successes increased in number and began to affect our repeat volume seriously.
Our answer was the "Gravure" specification. This enabled us to say to a customer, "All right, if you insist, we can do this at a lower price. But there are balancing factors. To begin with, we must withdraw our guarantee about maintaining the plate. Under the Gravure procedure, the plate will begin to wear, and we shall have to charge something from time to time, for bringing it back to good condition. Also we will not moisten the paper; this means that the print will be light, sometime slightly mottled, etc. It will not, in short, have the unquestionable top quality that had always been associated with "Woodbury Photogravure".
By this means we were able to salvage many of our photogravure accounts. While we tried, for years, to make the most of the difference between Gravure and Woodbury Photogravure, the effort was not always very successful, and gradually, the differences were, in practice, forgotten.
In sum, the Gravure specification proved to be device which "saved our face" for many years, and seemed to justify our cutting of the price for Photogravure by some 20%.
Chapter 5
The Depression Years 1930-1940

We continued for many years to quote and produce pictorial engraved letterheads under both specifications, Gravure and Photogravure. It was not until 1965 that we finally decided to abandon the separate quality-specification of Gravure. At that time, the use of the word was dropped and everything became Woodbury Photogravure. We used the price that had been associated with Gravure, though it had all the advantages, guarantees of maintenance, etc, that had been established of the best, i.e. Photogravure, were continued.

This adjustment to the realities of competition was, of course, being adopted by a great many industrial concerns, making all kinds of products. There is no doubt that its use under depression conditions at Woodbury and Company, enabled us to retain a considerable amount of revenue, and customers that might otherwise have been lost.

Another development that can be “credited” to the pressures of the depression, was the establishment of the Lithograph Department. It was 1935, when Harold Wilson, the Sales Manager, and I had been visiting the New York Office, on a Sales Management mission. The talk at the conference, while not much different from sales management conferences in that period, happened to impress us especially with the growing competition of improved Lithograph letterheads.

Upon returning to Worcester, I had a long talk on the subject with Edward Woodbury, stressing the point that (1) lithographic competition was getting serious, and (2) he had through his brilliant work on Photogravure, including the tremendously important feature of preliminary retouching of the copy, made our Photogravure successful, and acknowledged by all to be the “standard of quality”. I expressed the idea that the time had come for us to apply our expertise on pictorial letterheads as so well demonstrated by our success with Photogravure, to the field of photolithography and its application to letterheads. The point was that if we could have Lithographic letterheads to sell, we could salvage a great many prospects. As it was, we could work up a beautiful design, and then have to walk out of the prospect’s office without the order, though he might be delighted with the design, because our price was too high.

If we had the lithographic production available, we could sell this, in many instances. At any rate, the decision was made to embark on this project. In a short time, we had purchased a “Multilith” (a toy office machine for producing Lithographic letter size impressions) and had worked out a procedure which produced an exceptionally brilliant Lithographic picture. We adopted the name “ROTOGRAPH” to mean this special procedure for making brilliant pictures by Lithography. (see the appendix for a detailed description of the process). The new Lithograph Department was able to make, right from the very first, letterheads of extraordinary attractiveness. The department grew rapidly and proved correct, our forecast that we could improve our sales situation.

In addition, we were able to design and sell promotional folders to many of our hotel customers. But with the advent of full color brochures, our work was no longer saleable. In 1960 and beyond, the lithographic volume, measured in terms of letterheads produced, actually exceeded the volume of engraved work.
During the last months of 1932, it began to seem that the very worst of the Depression was beginning to pass. There were slight signs of improvement. Roosevelt had been elected to the Presidency; and perhaps it was the hope that he could do something that inspired people everywhere to think that the worst was past.

But in February, a big Detroit bank closed its doors. This sent a wave of panic through the banking community.

When Roosevelt was inaugurated on March 4th, the first thing he did... and this was apparently necessary...was to close all the banks in the country.

A few days prior to this, we at Woodbury's saw the storm coming and had mailed all our incoming checks for deposit to our New York Bank, (The Bank of Manhattan Company)

Thus when the banks were ordered closed, we had a few thousand dollars less than usual in Worcester, and this much more in New York.

In every city in the country, there immediately arose a call for something to use for money. The amount of currency in people's pockets was not nearly enough to carry on normal business.

The banks in Worcester set up a committee to see what could be done. We at Woodbury and Company saw an opportunity to be useful.

Harold Woodbury called on this committee, offering our services in the making of scrip. I recall making a “pitch” emphasizing two points, 1) Engraving was the best method of foiling attempts at counterfeiting and 2) We would include in the design an oval patch on which we would develop a “moire” effect, which would make counterfeiting impossible.

In a few days, we were given the order to make up some temporary currency for the Worcester Clearing House Banks. There were to be three denominations; One dollar, Five dollars and Twenty dollars. The total was to be about one million dollars, face value.

A word in passing about this “moire” effect. There were three areas where the moire affect was noticeable; one of them was around the numeral in the upper right corner. The other two were in the center of the borders, right and left. There was an irregular pattern in each of these areas. These are produced by ruling a series of parallel wavy lines across the area in one direction, and ruling another series of wavy lines at a slightly different angle across the same area. The superimposition of these two series of lines always produces an unpredictable pattern, or moire effect. The point of the sales “pitch” was that once we had made a plate with this unpredictable pattern, no one, not even ourselves, could duplicate it. Thus, if a teller at a bank window was uncertain whether or not a bill offered for cashing was counterfeited, he would compare the pattern on the bill submitted with the pattern on the sheet that he knew was genuine and could at once be sure as to the facts.

We went to work at top pressure at once. One problem immediately arose. The number of prints called for on the ONE DOLLAR bills was much more than we could possibly print, even with twenty-four hour operation, from one plate. So we did the only thing possible, that is, we made three plates for the One Dollar prints.

The prints were obviously very valuable so we had to institute at once very strong security arrangements. Fences of wood and chicken wire went to the ceiling surrounding...
various work areas. High power floodlights illuminated the factory and grounds all night. A squad of police on duty around the clock.

One unforeseen difficulty: Naturally, a very high grade paper was chosen for the work... all rag and very hard. The currency design was one which obviously required heavy pressure all over the area involved. The result of these two factors was that the pressure required for printing was probably greater than for any letterhead we had ever printed on the regular 4 x 8 presses. These were the only presses that could be used, for we had only two of the larger sized presses. At any rate, it was painful, and highly worrisome to hear the presses strain and groan, at every impression, as they made these prints. Actually, two of the presses broke under the strain of the excessive pressure. We at once put the job on others, and we finally saw the job through.

Many of the production workers worked around the clock, and even up to thirty-six hours at a stretch. Everyone was excited, and worked to the limit of their endurance and beyond.

George Millar, the photogravure platemaker told me that he had worked late one night, finishing up a plate, but when he was ready to leave, the safe was already locked up. So he decided to take the plate home with him to keep it safe. When he told his sister, with whom he lived, what he had, she was reluctant to let him in the house, but he was finally let in, and slept with the plate under his pillow.

With the prints so valuable, we were obliged to apply the extreme and explicit rule that always applies to currency production. That is, we had to count everything by hand, at the beginning and end of the run, and had to account for every sheet, identifying and counting each sheet spoiled, and each sheet that was a good print. But we failed to do this. There was an unaccounted for deficit! Had someone stolen a few sheets? Where had our so-careful preparations and controls gone wrong?

Not knowing what else to do, we delivered the good finished prints to the bank, and called the job done. Fortunately, the banks made no "big deal" of this question of spoilage to be accounted for.

Incidentally, this scrip was never used, for the government permitted most of the banks--those whose condition was all right--to re-open after about ten days.

It was six months before we discovered what had happened to the unaccounted spoilage. The explanation must begin by reference to the fact that in 1933, our routine for drying letterheads involved the use of what we called "Wheel dryers" discussed earlier in this story. These wheel dryers were designed to take interchangeably, both 8 1/2 x 11 letterheads, and 8 1/2 x 7 1/4 letterheads. The sheets we were printing with the currency impression were about 6 1/2 x 5. quite smaller than the smallest size the dryer was built to handle.

Six months after the production of the scrip, we had occasion to disassemble and clean these dryers, and found that a few prints of the currency jobs had fallen off the shelves that carried them, and dropped into the bottom of the case containing the wheel! Mystery solved!
Another odd feature of the story: My promise that the moire effect, which would be completely and unassailably unique on each of the three denominations, was obviously bankrupt, for in re-making the three plates for the ONE DOLLAR prints, these patches of moire effect were different, each from the others.

In summary, this episode gave us wide and favorable publicity in the city. It was an exciting bit of work that all concerned felt was worthwhile. While the prints were never used, we were paid for our work. As someone remarked at the time, “This was one time we made money”.

Secondary to the major task set by the banks, we made some currency for the City of Worcester which was used for a week or two in payment of wages of public employees. Also some scrip was made for the Whittall Carper Mills, which they used for payroll, and which was accepted currency for many weeks in the stores around the factory.

In the year 1939, Woodbury and Company first got involved in the specialized stamp collecting hobby of FIRST DAY COVERS. Because of its importance to the company, a word of background is in order.

Whenever the United States Postal Service issues a new stamp, it is made available at only one Post Office on the first day, and all envelopes using the stamp mailed from that Post Office are cancelled with the words, “First Day of Issue”, with the date and location. Envelopes bearing this “First Day of Issue” postmark become collector’s items. and their collection has become a popular hobby. Collectors, learning of the date and location of the First Day city, would send a self-addressed envelope to the postmaster of the First Day city, enclosing enough money for the stamp. On the First Day, the Postmaster would place one of the new stamps on the envelope, cancel it First Day of Issue, and mail it back to the collector. In those early days, the collector would wait with great interest to receive his First Day Cover (a Cover is a collector’s word for envelope) with the new stamp.

(These days, the process is automated. The collector buys the stamp when it is issued, and sends his cover to the center in Kansas City, where it is cancelled with the proper city and date, and returned to the collector. All the “romance” is lost)

I’ll just note that the Postal Service issues two kinds of stamps, “Regular Postage” stamps which are issued and re-printed as the need arises, and “Commemorative” stamps that are issued only once.

Soon, the collectors thought that it would add interest to the hobby to decorate the envelope with an illustration called a “cachet”, the first ones being a simple rubber stamp. In 1939, the Woodbury and Company representative in New Jersey, Bill Decker, was calling on a bank customer, who happened to have one of these First Day Covers on his desk, and Bill asked about it. This prompted Bill to call on a nearby stamp dealer, located in a little store front operation called Washington Stamp Exchange, run by Leo and Sam August.

This call started a long and very successful relationship between the two companies. Bill suggested to Leo that the collectors might be interested in a beautiful photogravure cachet on their First Day Cover. Leo thought they might. Bill suggested an experiment
whereby Woodbury would risk printing up three thousand covers commemorating the opening of the 1939 New York World’s Fair. Woodbury had a plate in their file that could be used as the basis of the design, and that was used for the test. If they failed to sell, there would be no charge. Needless to say, it turned out to be successful. (and any one of those first three thousand are quite rare and valuable today.)

It should be clearly understood that Woodbury and Company designed and produced the Covers, and sold them to Washington Stamp Exchange, now called Washington Press. Washington Press had the know-how to distribute the Covers to collectors directly, by subscription, and through their dealers. Washington Press would get the stamps ahead of time, get the envelopes stamped, and get them to the First Day City in time for stamping on the First Day. The Postal Service was not involved.

The next stamp to be issued was on the anniversary of George Washington’s inauguration. A special design was produced for this stamp, and for every US stamp (and UN stamp) issued since that time. (When I was thinking about it, I realized that I had NEVER talked directly with the Postal Service in all the years we produced the Covers.

We never had a contract with Washington Press. The business was almost entirely conducted on the telephone.

The trust we shared was complete and mutual. A friendship developed that was both professional and personal, and of great satisfaction to us both.

Of course we had differences of opinion, especially when from time to time it was necessary for us to raise our prices. Leo would accuse me of trying to put him out of business. He’d make it clear that he didn’t know where his next meal was coming from. I’d even begin to feel sorry for him. But I noticed that when his wife died, he did not give the hospital a simple plaque, but gave them a whole wing on the hospital in her memory. We made a reasonable profit. So did he.

The problem with managing the Washington Press production was that sometimes the requirements would be great, but sometimes there would be little to be done. I recall at one unusual point, we had thirteen presses running on their work. Once in awhile, none. But most of the time we had three or four presses running on their work. Over the year’s, the First Day Cover business was sufficient to help our engraving operation to be modestly profitable.

A separate book could be written about our adventures together, but just a couple of stories.

A stamp was issued commemorating the first flight into space, by John Glenn. Rumor had it that such a stamp would be issued, but of course it could not be announced until the flight proved to be successful. When working up the design for the cachet before we knew what the stamp looked like, I talked with Mrs. Robert Goddard about it. I figured that if anyone would know about it, she would. She confirmed our information that the flight would probably be on a Redstone rocket.

We worked up a design including the Redstone. We didn’t know who was going on the flight, but we didn’t think it mattered to our design, if only the astronaut’s eyes showed in
his helmet, so we put Alan Shepard in our design. The flight was successful, John Glenn
was a hero. The new stamp was issued that day. We made the new plate at once, from the
design that we had worked up previously. It happened that I took a proof of the new plate
home that day, and son David, age twelve, asked at once, “What did you put Alan
Shepard in there for?” (If you recall, Alan Shepard had very distinctive eyes) So we took
Alan out of the plate and re-etched in John Glenn. (no easy task). Then we learned that it
was an Atlas rocket that took him up (or the other way around, I forget now) So our plate
retoucher, Ward Robinson, very skillfully removed the Redstone, and put in a lot of
steam erupting from the rocket engines, so an observer couldn’t tell just which rocket it
was.

Working up the designs for the different stamps was an interesting challenge for the
artists. Sometimes we had plenty of time. Sometimes we didn’t. Remember, that after the
stamp was announced, we had to make the design, get it OK’d, the plate made, and
enough envelopes printed so that they could be distributed to the collectors, who in turn
had to get them to the First Day city before the stamp was actually issued. In some cases,
this required very tight scheduling. Most of the time, we got it right. Sometimes we
didn’t.

We made a second cover for the John F. Kennedy stamp that involves a rather interesting
story in connection with that sad story.
Soon after the assassination, Leo August wrote a letter to Mrs. Kennedy, offering the
services of the Washington Press in any possible way, as might develop in connection
with the stamps or First Day Covers. For some months, nothing was heard from Mrs.
Kennedy. But at last she indicated an interest. Discussion developed the idea that pleased
her, that Washington Press would publish a special First Day Cover for Mrs. Kennedy’s
personal satisfaction. The design would be according to her own wishes and choosing.
The edition would be limited, and most of it would be presented to her as a gift and she
could use them as she wished.
She selected the portrait of her husband and asked that the prayer of hers become part of
the design, with her signature. The edition printed was four thousand, of which three
thousand were presented to her, and one thousand retained by Washington Press, and two
hundred fifty of these were presented to Woodbury and Company. Each employee
received one of them.
None of these envelopes were ever handled commercially, No doubt, as time passes these
special envelopes will become quite valuable.

The Robert Goddard envelope records the issuance of the Goddard Air Mail stamp. The
cachet is a pictorial record of Dr. Goddard’s achievements.
Much to Worcester’s chagrin. Roswell, New Mexico became the place of first issue,
mostly because Roswell welcomed the Goddards, while in Worcester Dr Goddard and
his moon talk was widely ridiculed. But the politicians attempted to assuage the feelings
of Worcester people by having the Postmaster come to Worcester and make a speech on the significant date, October 5, 1964.

We also made a few special covers, like for Presidential inaugurations, for the President, Vice President and their wives. Of course we never knew ahead of time who was going to win the election, so we usually made up two sets of designs. (When Hillary Clinton was the subject, she kept changing her hair style. The one we ended up with was not very flattering). In the furore of each pre-election period, it was surprisingly difficult to get good photographs of the candidates and their wives.

One other factor in the First Day Cover business, is that, probably in the 90s, Washington Press established a relationship with MBI, who used the name, Postal Commemorative Society. They weren’t a “Society” but a company in the direct mail business. They were interested in selling a line of First Day Covers, and Leo August taught them the business, and sold them his covers, which contained an additional PCS trademark. They weren’t competitors because PCS was selling to the general public, while Washington Press was selling to stamp collectors. For some years, this worked well for everyone, as Washington Press was marking up his covers quite generously. Before long, the PCS volume became significant, and they thought that Washington Press should reduce their prices. This was after Leo August had died, and his nephew Mike August and son-in-law Tim Devaney were running the show.

Mike August worked out a rather complicated proposal to PCS that didn’t look like much of a reduction at all, to us anyway.

PCS asked if we would sell them direct.

This was a very difficult question for us. We urged Washington Press to reduce their markup, and save the business for us all. They declined.

By this time we were making separate designs for our PCS covers.

We felt a great loyalty to Washington Press. And we wanted to hold onto the PCS business. If we sold them direct, we’d risk losing the Washington Press business.

We decided that we must sell PCS direct, and told our friends at Washington Press what we were doing. Actually, we would sell to PCS at the same price that we charged Washington Press, so there would be no loss in our revenue.

We held our breath. Washington Press decided to stay with us, and PCS continued to buy some short edition covers from Washington Press.

We all survived, but it was a harrowing time.

It was about that time too, when First Day Cover collecting began to decline in interest. With the advent of collecting baseball cards, organized sports for kids, and computers, kids were no longer interested in collecting stamps; so their parents and grandparents, who were our First Day Cover customers, no longer bought our covers.
An incident occurred sometime in the 70s that is part of the Washington Press story that is worth relating. I’ll call it the First Day Cover Caper.

One day I received an angry call from Leo August, reporting to me that he had a customer in his office who had been able to purchase some First Day Covers at a stamp store in Worcester, before Leo had distributed any from his shop. This was SERIOUS.

We determined that the story should be kept a secret, and an all-out effort was made to determine how this could have happened. If word got out, it would produce chaos and destroy the morale of everyone.

We couldn’t imagine how it happened. Everyone knew that the security of these covers was very important. We finally guessed that the inspection department was the likely area of the problem.

We hired a private detective to come in and help us. But I worried about what might happen if one of our employees showed up after work, and found this stranger snooping around. Fortunately, that didn’t happen. They couldn’t figure it out either.

So Tom Bryant, our Treasurer, and I decided that we’d give it a try.

Next to the Inspection Department, was the hospital room. This was a small room that happened to be located on an elevated floor, about three feet above the surrounding floor, as it had once been a shipping platform that had not been removed when the building moved around it. There was a small ventilating window high in the wall, facing the Inspection Department.

Tom and I established our stake-out in the hospital room, Tom sat there, sitting on the top step of the short flight of stairs leading up to the room, with his feet resting on the steps. I was standing right behind him ... when suddenly we heard someone coming down the aisle toward us, --close. Tom immediately scrooched back into the room to get his feet out of the doorway. He came down on my feet, so I couldn’t move. Whoever it was, walked by, through the inspection department and on to the pressroom. By the time we got ourselves quietly untangled, and got to look out the window, whoever it was, was long gone.

So the two Keystone Kops decided to call it a day, and went home.

As a last resort, we called in the police. A very savvy detective knew just what to do. We arranged for a buyer (I don’t recall if it was a cop or our salesman) to show up at the neighborhood stamp store at an appointed time and “order” a few First Day Covers in question. We told our telephone operator to report to the detective any incoming calls, as he stood by. Sure enough, very soon a call came in and the caller asked for Bob, our shipper. The detective didn’t have to monitor the call. He and Tom went down to the Shipping Department, and asked Bob to go with them, down to Police Headquarters. Bob said that, yes, he had given some “throw outs” to the stamp store owner. The cop told Bob that it was a dumb thing to do, but the company would probably give him a reprimand, but he probably would not lose his job.

This was so serious, we felt that we had to let Bob go. Everyone felt badly, but agreed with the decision.
We were relieved to have the problem solved, but we felt badly that Bob had to go. Bob surely was not a bad guy, and I was soon able to get him a job at the Greendale YMCA manning the front desk, which he performed faithfully and well for a few years until he retired.

To finish the story of the Depression Years, a significant thing happened on January 12th 1939. It summarizes very effectively, an important part of the Woodbury story.

The employees presented to Harold Woodbury a plaque (which I have in my office) which reads as follows:

In appreciation of the executive abilities and untiring efforts of
HAROLD D. WOODBURY
in maintaining the prestige and widespread services of
WOODBURY AND COMPANY
and for his kindly interest in his employees
the undersigned consider it a pleasure to offer this TESTIMONIAL
as an expression of their loyalty and good will
January twelfth, Nineteen Hundred and Thirty Nine

It was signed by every employee.
The decade of 1930-1940 was one of constant struggle. As is well proven by the United States Census figures, the dollar volume of the engraving industry did not reach the pre-depression level until 1945. Woodbury and Company shared this long period of sales “drought”.

The war of 1941 to 1945, so-called World War II, brought on its own very special problems. There was the problem of personnel; there was the problem of materials; and there was the problem of sales.

As for the personnel, universal draft was employed by the government to obtain the needed men for the armed forces. In addition to those who were drafted, there were some who volunteered. Among these latter, was Harold Woodbury, who, full of patriotism and responsive to the need, as advertised by the Air Force “for experienced business executives” volunteered for service there. His absence extended for nearly four years. During this time, he had served as barracks officer in Alabama, College Training Unit Commander in Buffalo, Assistant Chief of Section, whose function was to cut down on the amount of money being spent on printing by the Air Force. This last assignment was in the Pentagon.

Practically all the young men who were in the employ of the company were called into the service, and most of them served three, four or five years.

Naturally, this seriously limited the capacity for production possessed by the company. But there were other difficulties. If we had had normal personnel available we would not have been able to produce normally by reason of lack of materials. On bond paper, for example, we were quite unable to obtain all we needed. Copper for making plates was a particular problem. The government office having to do with materials ruled that all engravers must turn in all copper that had been made into plates! This obviously would have been disastrous. The Engraver’s Association brought its organization forward on this point, and was able to have this order cancelled.

Our limitations forced us into some awkward and in some instances, damaging situations. For example, for years we had made Christmas cards for Mr. Myron Converse, the head of Worcester Five Cents Savings Bank. As usual, he asked us to make another one for him--this was probably in the year 1944. We said we could not on account of our shortage of personnel. “That we had to apply priorities to our production, that we felt it was more important to make letterheads needed for our commercial customers than to make Christmas cards for anyone”. Mr. Converse became very incensed. It may be that our point of view was poorly expressed to him; it may have been that our true plight was not revealed; in any event, it seemed that he never forgave us for what he no doubt thought was an inexcusable blunder in thus treating him so cavalierly.

During the war years, until 1945 our volume was static, and this was doing extraordinarily well, under the conditions.

With so many individuals away in the military, and with the other obstacles that had to be dealt with, it was indeed remarkable that we did not run into some kind of basic disaster. Edward Woodbury, of course, was the leader during this time. He had the earnest and dedicated assistance of Assistant Treasurer, Miss Florence Tuttle, in keeping the routine
going. In brief, the whole operation continued on its momentum until the war was over and the organization began to come back into place.

After the war was over, too, the volume again began to improve, and there was a considerable number of veterans who became available to fill the many positions requiring technical training and ability. The period between 1945 and 1950 therefore, saw the addition to our employment rolls an unusual number of young men who increasingly took leading parts in the organization.

These years included also some changes in the top echelon of leadership. 1944 was the year when Kimball Woodbury would normally have graduated from Worcester Tech. But he was in the Air Force. Upon discharge from the military in 1946, he resumed his studies and graduated in 1947. His assignments at first were to various production departments, staying in each long enough to become more or less proficient in the actual operation of the many processes and machines.

After two years, he became Production Manager.

When Kimball Woodbury began his post-war service with the company, it was foreseen that, as eventual leader, he would need the assistance of others whose abilities would complement his own. This thinking was back of the employment of Thomas A. Bryant, a graduate of Miami (Ohio) University, and of William Shumway, a graduate of DePauw University. These men, together with David F. Johnson, an expert accountant, and Miss Tuttle, who had already served for many years as Assistant Treasurer, formed the basis for a new "Management team."

Meanwhile, Edward Woodbury was constantly occupied with the engineering of processes and machinery. He spent a good deal of his time participating in some of the actual production of Lithograph letterheads. Most of the transparencies which were a key part of the process, were personally retouched by him during this period.

In addition to this, he took the lead in designing and building our Woodbury Auto Feeds. The history of modern printing is closely parallel to the development of automatic feeding devices.

Feeding the paper, one sheet at a time, into the press, is the most obvious way to achieve a degree of automation.

The problem of making an auto feed for a diestamping press is far more difficult than the problem for a letterpress. There are two reasons for this. One is that the diestamping press has a very heavy "closed in" jaw surrounding the area where the impression is made. The amount of space for the necessary mechanisms for controlling the paper is very limited.

The second reason is that with most of the diestamping presses, the print is made on the under side of the paper, so that the paper has to be turned over as it comes out of the press before it can be deposited anywhere.

Quite early in our history, Edward Woodbury addressed himself to the design of an autofeeder. One was actually built and made to operate successfully. This effort was begun in 1914, and more than 1,000,000 impressions were made between 1914 and 1915,
It is recalled that an effort was made to exploit this, not only by using it for our production (which has been the usual way for us to take advantage of our inventions) but, in this case, also by selling the design to a manufacturer who would make and sell the machines.

A contract was made with the Miller Saw Trimmer Company of Pittsburgh, Pennsylvania for this purpose. It was understood that they would perfect the design, and make it available to diestampers throughout the country. We were to get a royalty on every feeder they made.

Nothing ever came of this. It is entirely possible that they investigated the industry and decided that the potential sale of the feeders was so limited that the cost of development and manufacture of a small number of the feeders would never be repaid.

The whole matter was allowed to rest dormant for some time—several years, in fact, no doubt due to our preoccupation with other matters that seemed more immediately important. The matter was revived in the late 30s and one after another of the feeders were made, and put to use.

The design was strictly limited to a feeder that was geared to a Waite Die Press. It used the basic idea of stripping one sheet off the bottom of the pile of paper being fed into the machine, as the pile moved back and forth in a reciprocating hopper. This was of great importance, because it allowed more paper to be added to the hopper without stopping the press, which most feeders required. Then at the appropriate instant, the grippers reached into the jaws of the press, grasped the paper, and with a fascinating motion, the paper was swept back and out, and laid face up on a moving canvass belt, eighteen inches below the infeed, so that the sheet was carried into a heated tunnel for drying.

By the 1950s, others were making autofeeds that were successful. We began to buy and use the Heywood feeder, made in England, along with the “Hi-Speed Modern” presses. (They were neither high speed nor modern) with which they were associated.

John Edward Woodbury passed away in 1949, and from that point, Harold Woodbury became President and leader of the organization.
Consolidation is never a dramatic process. Strengthening a department here; installing a stronger leader there; slowly saving money for greater financial stability— all these taken together may have a very great bearing on the strength and progress of the whole, without, in the process, even one striking or outstanding event.

In many ways, this is the story of the 1950s.

Edward Woodbury passed away in 1949. For some years, he had been giving his attention increasingly to the actual production of Rotograph pictorial work. But his work for four decades had been in the building of machines and procedures on which our production was based.

One of the machines he developed, along with the strong support of Herman Sanborn, our Mechanical Maintenance Foreman, was the rubber belt wipe.

Anyone who observes the process of production of engraved stationery is at once impressed by the apparent waste and expense involved in the paper wipe. The roll of die wiping paper standing near the top of the press discharges a section four to six inches in length of clean paper, which is used to wipe the ink from the plate or die. This section of paper is then rolled up on a second spindle and is thrown away. The cost of this is very great; depending on the width of the roll, and the length of each “draw”, the cost can vary from $.30 to $1.00 per thousand impressions. This is assuredly a heavy burden on the cost and therefore the price for this kind of work.

Any search for areas where improvement is possible, always turns up this waste, as one place where invention might be profitably applied.

One thing we tried was a simple machine to unroll the used wiping paper, into a baling machine, so that it could be salvaged and made again into paper. Unfortunately, we found that the ink had been just wet enough when it was rolled up so that it dried, and effectively glued the roll into one solid hunk of paper.

Why not have a long— perhaps twenty feet long— continuous belt of some material which could effectively wipe the plate, as the paper does, and then be washed and dried in time to go through the cycle again?

The first thought is always, “A rubber belt might do this all right”. We contacted the Dewey and Almy Company in Cambridge, which specialized in making rubber coated fabrics for the textile industry. They had a material which we thought would work, and asked them to make us a test belt, about eight inches wide, for us to test.

Meanwhile, the Cronite Company, Mr. Robert Steffens, proprietor, undertook such a development. He promoted it to the trade at once. (He was always promoting his equipment to the trade long before it was ready) We took one of the machines on trial, after having seen a demonstration in New York. When it was set up in Worcester, it performed poorly. Just what the problems were is not now known. We returned the machine as unsatisfactory.

This was a challenge to Edward Woodbury who believed that he could design a machine that could wipe from a continuous band of rubber-like material that would not have the defects that the Steffens machine showed.

He made the machine. We made it work. It produced some millions of impressions without any wiping paper. There were some hints flying around that Steffens would sue
us for patent infringement, but they were ignored.
But this whole development was gradually abandoned. The problem was that, while it worked, it also took constant tending by the pressman. Instead of running four presses, he could only run the rubber-belt press. We found that it was actually cheaper to abandon all the effort involved in keeping the rubber belt functioning properly, use the old fashioned die wiping paper, and get the job done promptly.
In the early 1950s with Kimball Woodbury now the only engineering graduate on our staff, the real basic challenge—though unmentioned, let alone undiscussed,—was, “Could the company survive with its great variety of technical procedures, without the guiding hand of the man who originated most of it?”
And so, the key word for the decade of the 1950s—Consolidation—had its first and perhaps most significant application in this technical area.
We soon discovered the answer. “Yes, we could not only survive, but we could grow and improve in new ways.” While our growth might be along somewhat different lines from those that would otherwise have been taken, growth would still be effective and would lead to new areas of profitability.
One area will be interesting. For some years, the ratio of pictorial work to the total, in the sales of Engraved letterheads, seemed to be declining. For many years it had been about 50%. That is, half of our engraved letterhead production was photogravure-illustrated letterheads and the other half was phototint, (lettering plus tints) or diestamped (lettering only). But now, the new work coming through, showed only about 30% with the photogravure specification. Another point, with obvious implications was that much of the pictorial work was special, i.e. for First Day Covers. Thus, the letterheads calling for photogravure pictures were producing an even smaller ratio. It would be but a few years before our total production of pictorial letterheads including repeats would be very small. All this was serious, for we had built our reputation on our pictorial work, and we had been able to obtain a wider profit margin on this, than on the more common competitive work.
The popularity and salability of pictorial letterheads no longer existed. We wondered if the problem was price. We tried an experiment. We asked our top salesman to offer prospects a photogravure plate without any charge. He had no takers. They were not interested in a picture letterhead.
Here was a situation requiring sound judgement, and appropriate adjustments. While facing the facts, and doing all possible to slow the disadvantageous change in product, we adjusted our production to perform efficiently what we could sell.
This took two forms. We began to buy a new type of Engraving press, (called the Hi-Speed Modern) from the aforementioned Robert Steffens, and we spent time an money necessary to redesign and adapt our Automatic Feeders so that they could handle envelopes.
For years, the idea of automatic feeders for envelopes had been a source of challenge. The ordinary corner card on an engraved envelope was not an easy thing to feed, for the impression coming as it always did in the extreme corner of the envelope, provided
almost no area of paper that could be supported by the feed table. In addition to that, the amount of space below the chuck was always very little. But now, a new approach was considered. Why not feed the envelopes in endways? This would mean putting the engraving into the press endways, too. This seems very unorthodox when a simple lettering die was involved, but it could be done. Another point of great weight in this study was the fact that the First Day Covers were becoming a very significant proportion of our total engraved production. If we could auto feed these, it would be a considerable advantage. After a few months of deliberation, Herman Sanborn set to work building such a feeder. Quite remarkably, he did not draw up on paper, extensive plans for the machine. He did it in his head. When the feeder was competed, quite remarkably again, it ran almost flawlessly after making only a few minor adjustments. We proceeded at once to build three more. This was a victory especially sweet since it proved at we could do something significant in this field without the help and guidance of Edward Woodbury; it proved that we had developed a strength of our own. Another interesting development was pursued at this time. We were introduced to a company called Electrolcal. It was just a small company that made multi-color heat-transfer decals, which were used to decorate odd-shaped plastic containers, like those used in cosmetics. We recognized at once, the possibility that these decals might be effectively added to our letterhead designs. We might, for example, have a stock of small five color Cadillac trademarks, which could be transferred to a one color engraved or lithograph letterhead, in small quantities, as might be required for letterheads and business cards. These decals were relatively inexpensive, and we could stock items like trademarks, and use them for a number of our customers. We purchased a small heat transfer press on which we could make the transfers to our work, from rolls of the decals that we bought from Electrolcal. We did some very nice work, but because of the nature of the decals, Electrolcal had to heat dry each impression in their process, which prevented them from achieving the degree of close register of the colors that our customers required. It was a great idea, but didn’t quite meet the standards that our application demanded. The 1950s saw a significant re-focus and development of the Personnel Department. Previous to this period, the company had initiated several interesting and valuable policies in the area of “Industrial Relations.” The leaders of the company had always felt strongly, that because they trusted and supported each employee, and if they, the leaders, did their very best to give the employees the best possible working conditions, then the employees would not feel the need for a union. The leaders felt that working under the adversarial conditions that a union would create, would be intolerable, for everyone. This was not a written policy, nor was it often discussed, but it was an attitude that was accepted by all.
Among the Personnel Relations policies that were introduced during this period were the following:

In 1945, we reviewed our entire "job description and analysis", wage structure, and retirement policies. Hitherto, like most small concerns, we had had no formal structure of job descriptions or analyses, no formal wage structure tied to these job analyses, no formal procedure for frequent review of individual progress, with wage-rate adjustments, no formal pattern for retirement and no arrangements for pensions.

All these matters had been reviewed and carefully studied. We had reached several interesting conclusions, and had arrived at a number of significant decisions.

First, as to jobs. We worked out a structure of job-titles and job descriptions that revealed the requirements and responsibilities of each position. In the matter of jobs such as "Engraved Pressman", for example, the sequence from learner to fully-experienced was shown. Along with this, we set up a pattern of "labor grades" that would be associated with the job descriptions, so that the whole would make sense. Then, in addition, we initiated a pattern of periodic reviews of the progress of each person on his job—so that at appropriate intervals, "merit" increases would be promptly awarded.

Secondly, we adopted a program for the reward of seniority that was a feature of the army-pay pattern. We arranged that for every five years of employment, each individual on the payroll would have his base pay increased a small percentage. Thus, even those who had reached the top of their skill could look forward to at least small increases from time to time; and those whose length of service was substantial—twenty or thirty years or more—would be receiving substantially more than the rate normally pertaining to their job.

Third, we adopted a "retirement income plan". As we examined the provisions of such a plan, worked out in detail by insurance companies, we were shocked (as everyone always is) to discover the very high cost of including long service employees in the privileged status as to accumulated credits, called past service, to which they were certainly entitled. This came to $30,000. But we believed that the whole concept of an assured income to employees after retirement was so important that we decided to go ahead at an annual cost of several thousands of dollars, plus the "past service" mentioned.

Jumping ahead for a moment, when it was determined, some years later, that we should change the program from "defined benefit" to "defined contribution", it was learned that the company had "overfunded" the plan by some $1,000,000. The company had the choice of putting that money back into the company treasury, or distributing it to the employees. There really was no discussion. It was decided that it would be distributed to the employees as part of the new plan, by a fair formula.

An incidental, but important conclusion from our study was the formal adoption of the policy that we would not ask anyone to retire from his work with us because he had reached sixty-five or seventy years old, or any other stated age. We promised that if an individual, upon reaching retirement, wished to continue working, we would find something for him to do "He is worth more to us than to someone else for whom he..."
might work”. No promise was made as to rate of pay, hours of work etc. … but no one would be asked to stop work merely for calendar age.

Looking back a moment, a personnel matter of some importance was put in place. It was in 1923, partly in response to suggestions from employees, the company created its preferred stock, chiefly for employee participation. This remained in existence until quite recently, and has served all concerned very well. It was a “participating” preferred, i.e. it was arranged so that after common stockholders received a stated minimum dividend, the preferred must share additional dividends, and of course, there was a preliminary dividend to the preferred before the common got anything. This worked well. Since 1923, the company has grown a great deal, and the dividends thus paid to the preferred stockholders have gradually increased until for those who purchased some in the early days. the return was in the order of 25% annually.

All these matters in the field of personnel management had been studied and concluded as more or less separate problems. But now, with the start of the decade of the 50s we gave official status and responsibility to the Personnel Department. In 1951, we started the Annual Service Awards Dinner. … so that we could have a “party” for the “old timers”, and give suitable personal recognition to all employees who by long service had contributed the most to the company. This was a period when Health Care became a major challenge for everyone. Earl Berry, our Treasurer, became our point man on this issue, and he became highly informed on the subject, and led the company -employee participation in the best possible way.

The employee’s paper, The Eagle’s Eye, was also started about the same time. A four or six page sheet, written mostly by employees and officers, it proved to be a readable paper, and no doubt served a very important purpose in helping to maintain frequent communications with employees.

The Personnel Department brought all these matters under continuing and high-level official attention so that everything possible would be done, and done skillfully, to maintain good employee relations.

The program discussed here was a strong foundation for good morale, and comfortable working conditions for the whole team. But there was one flurry of unrest that should be part of the record.

We had the practice of shutting down our operations for our annual two week vacation on the first two weeks of August. Because of this practice, it was very important that everyone work a full day the day before vacation and the day after vacation. As a matter of fact, on the last Saturday before we closed, a group of “volunteers” worked frantically, often into the afternoon to ship out all those jobs that were “promised before vacation” (You’d think we were closing down for a year.)

One year, early in the 50s, I forget which one, it seemed that three of our young men who spent their vacation in Florida had car problems, and didn’t return till three days late.
As we didn’t have double coverage on all our jobs, this was serious indeed. We gave the three, letters of reprimand, in which they were told that this infraction of the rules would be taken into consideration at their next “progress review”. The implication was that their next raise might be postponed. These were not bad kids or troublemakers, and this mild reprimand seemed to “fit the crime”. They took offense, and one got in touch with the Labor Relations Board, I guess, and passed out cards to get approval for a union vote. In one case, I understand, a pressman reported to his wife that he had passed in his card. She went ballistic, and ordered him, after all the company had done for him, to get the card back. I think he did.

At that point, Harold Woodbury invited the three instigators to meet with him and Kimball at his cottage in Princeton, to talk this over. They tried to be tough and talk union language, “demanding” a raise and a couple of other things. Harold, after suggesting that they use more reasonable language, agreed to put through a wage increase at once (which had already been decided by the company) and he suggested an employee committee, called the Shop Committee, be established to facilitate communications between management and employees. This ended the union talk.

So the committee of five (I think) elected members was set up, which met every two weeks on Wednesday afternoons. The pattern was that they would meet by themselves as long as they liked, and then they’d ask management to come in and discuss anything. The committee’s job, it seemed, was to think up stuff to complain about, which most of the time was quite minor, and most of which we could agree to. Some were unreasonable and we had to disapprove.

When they got through, management would discuss business items of interest, often involving the management operating charts which were on display for the management and the committee to refer to.

It seemed to me that the employees made a point to try to elect three or four old time, seasoned employees, and a couple of young frisky ones. Some committees were quite benign, some quite difficult. Regardless, though, the Shop Committee created an uncomfortable tension for management. After two years or so, the Shop Committee expressed some frustration, and told the management that if they were not given more authority, then perhaps it would be best is they simply discontinued the committee. The management agreed to consider this proposal, and, I assume to the dismay of the committee, management agreed. And so the Shop Committee went out of business.

(There is no record of how the non-drinking Woodbury family spent the evening) The cooperative tone between management and the employee group returned to normal.

It was during this period that John Clark Woodbury was added to the employee roster. His assignment was to lead the advertising section of the Sales Department. This important function was soon on a higher level of efficiency and effectiveness than it had ever been.
Chapter 7
Consolidation 1950-1960

During the 1950s growth seemed to stop. We were definitely on a plateau. It was uncertain whether or not we could ever break out of this pattern. It would not be until the mid 60s that this question would be answered.
Meanwhile, all our efforts toward expansion of volume were frustrated by low circular returns and customer losses.
Perhaps this is a good place to comment, in the light of long historical perspective, upon our sales program and activity.
In the early days, after we had broken the barrier of uncertainty and were definitely embarked on Engraved Letterheads as our basic product, we had a remarkable competitive edge in our favor. Also, we were located in the midst of a region which was ready to listen to and be impressed by persuasion regarding the commercial value of high quality letterheads.
Our photogravure letterheads were everywhere quickly recognized as the “most beautiful work seen anywhere”. We almost started a new vogue in commercial stationery. New England, New York, New Jersey and Pennsylvania were the ideal areas in which to make such a beginning.
Looking back now, in 1967, to our sales program and expenses in the 1910 to 1920 decade, it seems quite evident that our task was easier than it has been ever since. In any event, we spent only 15% of our income on the sales department; which is remarkable in the light of the fact that a high percentage of it must have been new work.
As we began to reach out beyond Worcester, we early made a contact with Mr. Edward S. Barber in New York, who was a salesman for an old line photogravure house. He had seen our work and admired it so much he wanted to join our organization. We were pleased to arrange this, and he served as leader in our very active New York office for several decades.
As we expanded our sales staff, we began to experiment with various forms of compensation. Almost at once, we realized that for us, the time and effort expended in making a new customer was far greater than that required to pick up a re-order. Then there was always the problem of travelling expense of the salesman. Sometimes several dollars would be spent on a trip with no results, at other times, a phone call would get the order.
After trying out one or two other schemes, we settled on the basic idea that NEW business was something for which we should pay much more than for REPEAT. And the basic idea of 20% credit for NEW and 10% for REPEAT, with suitable adjustments for traveling, was adopted. This has served well for many years. Perhaps it is worthy of note that, at the time this idea was worked out, no other engraver was using any such idea, and it is likely that the Life Insurance industry was the only one that had pioneered in this direction.
The New York office was our first venture outside of the Worcester area, but over the years, we had offices in addition to New York, in Newark, Albany, Philadelphia, Cleveland, Chicago, Los Angeles and Greensboro. I use the term offices a little loosely, in that they were usually answering services, with which our sales people kept in close touch.
To point to the contrast with the early, relatively “easy” days in the sales department when we spent 15% for selling, the selling cost soon rose to 23% or even 24%, and has slowly risen to 32-35% in the most recent period. It is obviously very high, and constitutes a continuing and major problem for the management to deal with. Despite all the problems, however, our sales gradually increased in volume, and by 1960 we were able to sell approximately $1,250,000 in annual volume.

For a period in the early 50s we had an arrangement with Mr. Horace Nahm of New York City, who was President of a very successful direct-mail company called Hooven Letters. Because Hooven Letters prepared the direct mail programs for many large New York concerns, they required a significant volume of stationery. Horace Nahm knew of our work, and we persuaded him to buy his stationery from us. He created the Nahm Photogravure Company, and had us provide all his stationery, including a private watermarked bond paper. Horace was a big, handsome, charming New Yorker, and when he visited the Worcester office, all the girls in the office would simply swoon. It was said that Horace had a setup in his New York operation where he had a battery of automatic typewriters lined up, with a power driven chair running down the line, where a girl would type in the address material on a letterhead, start the typewriter typing, move to the next and do the same etc. Horace believed in the value of individually typed letters, as we did, and this is the way he did it, very successfully. This arrangement lasted a few years, but soon, Horace was sending us only the most difficult work, and then it simply faded away. There was some question about the profitability of this work, after we gave him a trade discount, but it produced considerable volume for a number of years.

There is a family story about the New York office that goes like this. It seems that Edward Woodbury came down to breakfast one morning, obviously feeling very grumpy. His son John asked why? His father answered, “I’ve got to go to the New York office today.”
This decade saw the volume of the work sold and produced break out of the plateau on which we had been riding for several years. By the year 1967, we approached a volume of $2,000,000. The volume of engraved impressions could not be raised much above the 40,000,000 level, and the proportion of pictorial work was constantly shrinking. The price of the average impression could not be increased enough to make up the loss in pictorial impressions. But other items were strongly growing. For one thing, the Washington Press First Day Covers and Album pages were growing well. And another surprising item; engraved business cards, with the always required imprints of the individual’s name, showed a growth that required a constant increase in capacity in the Letterpress Department, and later in the Litho department.

In 1967 we purchased a machine that would make possible gold and silver foil stamping. This always makes a spectacular effect on a letterhead, especially when the design is appropriate. This process led to the addition of blind embossing to our design possibilities. This effect was achieved by simply running a specially engraved die, without ink. It could also be combined with a die that was partly inked, giving, in effect, a two impression job.

The volume of lithograph letterheads seemed to be limited to some 25,000,000 or 30,000,000, but confidence was great that eventually this feature of our production would be the source of an increasing share of volume and revenue.

It was at the Annual Meeting in the spring of 1966 that an important change was made in the formal organization. Harold D. Woodbury stepped down as President, and was elected to the new position of Chairman. Kimball R. Woodbury was elected President. Kimball had served for some years as Executive Vice President, and had been performing the duties of active day-to-day management of affairs. These changes were more to make the titles reflect the facts, than to change anything significant in operational responsibilities. These changes actually had been planned almost from the start of the decade, for the succession of leadership was clearly something that would soon have to be determined. Therefore, in many ways, every obvious step was taken to train a new management “team” so that when in 1966 it was decided that the time had now come to make it official, the transition was made with no difficulty. Along with Kimball Woodbury as President, Thomas A. Bryant was made Vice President and Treasurer, John Clark Woodbury was made Vice President, M. Florence Tuttle, Assistant Treasurer and Clerk, William E. Shumway, was given the title of Production Manager and David F. Johnson Comptroller. The record of the 1970s was clouded by the tragic loss, to cancer, of our Vice President and Treasurer, Tom Bryant.
He and Kimball Woodbury had become acquainted while in the military in World War II, and had developed a mutual respect and appreciation. Years later, when Kimball returned from war service, and attention was given to the coming needs of the company, it was agreed someone would be needed to help with financial and administrative management. At that point, Kimball remembered his friend Tom Bryant. An exchange of letters, followed by specific discussions, resulted in Tom Bryant's acceptance of our offer. He moved to Worcester from his home in Ohio, and became our Assistant to the President, and later, Vice President and Treasurer.

His career with Woodbury and Company, which was eminently successful, was cut short all too soon.

Not since the Great Depression had so many unusual influences converged, for good or ill, on the fortunes of the company.

As we review the period of the 60s the impact of these developments became clearer. One of these matters had been slowly growing since the end of World War II. At no point in time was it dramatic or sudden, but after years of almost unnoticed growth, its effects were substantial. This was the undeniable fact that the place of engraved letterheads was changing.

For many years, it had always been assumed, that a top-grade concern should use an engraved letterhead, for that was the best way to reveal the prestige and strength of the sender, in a suitably impressive and dignified manner. But now we could not fail to see that this tradition was weakening. There seemed to be little we could do about it.

As we now analyzed this rather fundamental change in our market for engraved stationery, we noticed that our new sales were increasingly to newer, smaller concerns. Our new customers were businessmen who were willing, or could be persuaded, to spend money, in effect, for the purchase of prestige, and, at least the appearance of established success.

All this was a sad blow to our company, for it cost is many long runs of engraved letterheads... and to the extent that much of this loss was from repeat orders, the extra profit margin associated with this kind of order was lost.

The immediate consequence of this development was an increase in the cost of selling. The cost of finding people who would buy an engraved letterhead had always been high, but when the result of this costly effort was typically an order from a small concern whose use of stationery was limited in quantity, it was easy to see why this situation had to be regarded as serious.

Meanwhile, lithograph letterhead volume was also shrinking. This could not be due to the change in general “acceptance” above cited. It was, in fact, due to an entirely different development. The development of lithograph printing presses simple enough to be satisfactory office machines permitted many concerns, even relatively small ones, to do their own printing. We could point out with some success that as specialists in high quality work, our work was better than the product of their “in-house” equipment. This claim was often accepted as correct... but the apparent saving to be gained by using the newly-purchased litho equipment was too strong an incentive to overcome.
Largely as a result of these developments, our sales of engraved letterheads fell from a peak reached in 1967, by over 40% as measured in impressions. During this same period, our sales of lithograph letterheads, again, fell nearly as much. If the company was to survive in anything like the traditional form as “letterhead manufacturers” something surely had to be done, and quickly.

A very interesting detail of economic life emerged in the 60s. The manufacture and sale of “collectibles” was achieving the status of high volume business. These “collectibles” included, of course, postage stamps--used and unused-- and this had always been the favorite hobby of thousands of people... but now commemorative plates, coins, medallions, bells, thimbles, etc. were being manufactured and sold. These items were not intended to be useful; they were intended just for sale to people who wanted to collect them... and who, no doubt, hoped that their collection would gradually increase in value.

A basic fact in this was the traffic in stamps, and the “First Day Covers”. This gained particular interest in the “Bicentennial years” when many stamps were issued, the sale of “Covers” promoted, and the general public was very interested.

Because Woodbury and Company, with Washington Press, was well established in this product at this time, this increase in interest in First Day Covers gave us a rapidly increasing volume of engraved envelope work.

During the few years from 1960 onward, the volume of orders from this one concern doubled, from about 10% of our dollar sales to 20%, and this prevented a shrinkage in our volume of engraved impressions that would otherwise have seemed disastrous.

Another aspect of economic life in the 1960s, was extremely significant. The escalating rate of inflation produced a constant turmoil, uncertainty and deep anxiety in everyone. It was not business concerns only that were struggling with this problem, for everyone earning a living by work, or living on savings or pensions, inflation was a daily perplexity.

This is not the place to go into detail about the impact on Woodbury and Company. It is probably sufficient to say that as a result of inflation, our volume, although drastically shrinking in physical measurements, was increasing slightly when measured in dollars.

To a superficial observer, this fact might lead to the conclusion that things were progressing all right. But such a conclusion was likely to be dangerous as a basis for management judgement, and decision.

At any rate, we struggled constantly with costs, prices, customer relations, changes in volume, changes in markets, all related to inflation.

Several of these recent changes were obviously beyond our power to influence. There were other changes that occurred in the decade of 1970 which were, by contrast, directly the result of our judgement and initiative.

One such matter was the establishment of our Thermograph Department.
Chapter 8
New Horizons  1960-1970  70

For many years it had been a fixed and completely appropriate tradition to look with condescending scorn at stationery produced by Thermography. It is a process which scatters powdered rosin on the ink of a letterpress impression, while it is still wet enough to make the powdered rosin stick to it, and then the sheet is passed through an oven, melting the rosin. The result is a lump of rosin over the lettering that has been printed on the paper.

Many years ago, all this was quite frankly an imitation of engraving. There was little or no claim that this lump of rosin improved the appearance of the print. What it did do, it was claimed, was to make the print resemble engraving, in the fact that it was raised. When anyone touched the print, he would note that it was raised, and think it was therefore engraved.

All this was inherent in the words used by those who were promoting this process; Raised printing; Plateless Engraving etc.

It was natural for people like us, who regarded this process as a tasteless and poor imitation, to refer to it as “fried printing”. When faced with competition from this direction, our salesman would pull out of his pocket some paper money. Taking a dollar bill in his hand, he would run his fingers across the lettering and say, “Look, this lettering is not raised at all” In fact, at the Bureau of Engraving and Printing, they run it through a press to flatten it out, there should be the slightest embossing from the process of producing it. “So much for the raised effect”...and American paper money is everywhere acknowledged to be the best engraving in the world.

This situation is now obsolete. The arguments against Thermograph had begun to weaken during the 60s. Early in the 70s we had a thorough review of this competing process. We found that for many years Thermograph had been used and accepted by over 80% of the buyers when wedding invitations were being produced. In the production of this product, the circumstances were such that the economic pressure was high, in favor of thermograph, and the plate cost in an ordinary order for engraved wedding invitations was a very high proportion of the total cost. Thermograph could avoid this completely, with only the cost of a small type setting to balance it.

We found, secondly, that manufacturers of the machinery for production of Thermographic work had not been idle, and the people who were making the ink and powder to be used, were also responding to the opportunity facing them. The result, by 1973, if not earlier, it could be said without “shading” the statement for or against, the thermograph had now reached a point in excellence of appearance, so that it had become a legitimate process in its own right.-it was good on its own merits. The principle reason for this improvement was the fact that it could now be easily combined with the lithograph process, which deposits less ink on the paper, so the addition if rosin did not end up as a lump on the sheet, And the addition of the rosin did, in fact, enhance the depth of color and apparent strength of the underlying lithograph impression.

In addition to this, it added in most cases, a subtle shadow to the lettering that enhanced its attractiveness.
There were some cautions. It could not be used with a good result on pictures. If an emblem was part of a letterhead design, sometimes the lines and solids would run together so closely that the result could not be regarded as satisfactory. With those slight concessions, however, we came to the conclusion that we should use this process as an ally, and no longer as a competitive enemy.

Even surprising ourselves, we now embraced Woodbury Thermograph as one of our principal products.

Our Sales Department who had trained for years in arguments against thermograph found it somewhat difficult to get enthusiastic. But most of them did, and quite promptly. As expected, we found some buyers “went for” the Thermograph when they might otherwise have bought engraving, but, at the same time, our having Thermograph as a competitive tool, no doubt saved many customers who would otherwise have been lost. As this is written (1979) this new department is progressing very well. We already have three presses in active use, with another on order. The growth seems to be about 25% per year, so if this rate can be maintained for a few years, its future should mean a significant contribution to our total economic performance.

Unfortunately, since this was written in 1979, a serious obstacle arose to the use of Thermography for letterhead use. About that time, office copying machines came into general and widespread use. Most copying machines involved the use of high heat as the copy was being made. If the original being copied was a thermograph letterhead, the heat melted the rosin on the letterhead, making a general mess of the letterhead, but worse, gumming up the copying machine. This sharply limited the process for letterheads, but of course did not affect the growing market for business cards.

(A bit of trivia, Edward Woodbury held some stock in an obscure little company called the Haloid Company, which made copying machines. He said that the process would never be successful, and sold his stock. Haloid soon became the Xerox Company and took off)

The usual list of engraved items for business includes letterheads, envelopes and business cards, with the letterhead design carried over, as appropriate, to the envelope and business card.

Envelopes, it has been assumed, should belong to the same design “family” as the letterhead. Same design, altered appropriately to fit the different use, same paper etc. But the use of engraved envelopes never reached significant volume. This was because of the very simple, economic fact; the purpose of the envelope was limited to carrying the letter to the addressee. Why spend any extra money on this?

Business cards were something different. In those days many small businesses never felt the need for business cards. And most local businesses found that business cards, just to introduce a caller, were an unnecessary nuisance. Nowadays, everyone must have a card. Larger concerns whose sales activities were nationwide found that something was needed to initiate and support the business call of the salesmen, who were, after all the life blood of their activity.
For the producer of business cards, it was likely to be a somewhat different story. The market for business cards was highly complex.

First, there were the small users, the small shop owners who needed perhaps 250 cards for two or three employees.

Second, smaller companies that needed cards for their executives, and a few sales people, maybe five to ten people.

Third, the medium size organizations, manufacturers, small banks, who needed cards for up to perhaps fifty people.

Fourth, then there was a large group of larger banks and insurance companies who used cards for perhaps two hundred people.

Fifth, these were the giant organizations that used cards for more than two hundred people.

Each of these groups needed entirely different production operations to produce the cards accurately and quickly.

Ideally, a program could be worked out with a customer to make the orders go through smoothly, but it hardly ever worked that way. For example, insurance companies have a number of different sales categories for their salesmen, each of which has a different symbol, and the salesmen are proud of their achievements, and they want the proper symbol on their business card. Then there is the star salesmen who’s boss sends down word to the purchasing agent to give the star salesman anything he wants. They all want their cards within a day or two, so their new salesman can get to work at once. And they must be perfectly accurate, the name spelled right, title, addresses, and a couple of phones and faxes.

The competition is brutal. Some promise overnight delivery. at incredibly low prices.

We chose our niche as engraved cards for organizations that had up to two hundred names. Our procedure was to print master cards, some two-up, i.e. two cards on a sheet, or ten up, stock these master cards, and pull out what we needed when we received an order for imprinting names, traditionally by engraving or letterpress, but later we made a significant improvement by imprinting by litho rather than letterpress. We had bought two litho presses which were specifically designed to print “telephone cards” in Japan, but which worked perfectly for imprinting business cards.

We believed that in the face of declining sales of letterheads, that business card use would continue strong, and that we should try to find our place in the market, and drive hard for it.

Because of our reputation for top quality work, we felt that sometimes a customer might be critical of our work, when he would not be critical if someone else had produced it. As an indication of a purchasing agent’s attitude, I recall a case where a potentially large business card account went to a kind of sleezy competitor. I ran into the purchasing agent at a town meeting, and he reported that the competitor made a lot of mistakes, but then added “we didn’t give him much time to produce the job, but that’s no excuse”.
I'm reminded about another business card sales experience with that same company, one of Worcester's largest and most prestigious companies. They had just changed their name, and had a new President. They had their in-house art department design a new letterhead. The new boss didn’t like it. The deadline for the new name announcement was bearing down fast. They appealed to us to come up with a design. We worked the design department overtime to get the new design completed. The new boss liked it. They ordered a few short editions for their top executives. We had their new letterheads on their desks when they came to work, under the new name. Soon, when they were putting together their large order for corporate letterheads, based on our prices for the short emergency runs, they decided our prices were too high, and we did not get the order for their regular corporate letterheads.

Then it took forever for them to pay for the emergency runs. It reached the point where I had to insist that they deliver the check to me by messenger, which they did. Later, when they asked us to bid on the aforementioned business card order, they were quite angry with us because we declined to bid on their order.

Back to our business card operation.
So we tackled the problem of how to serve this niche, and all its requirements, while maintaining our expected quality, and meeting all these other requirements.
With the application of excellent, innovative imagination what we called “System-10” was devised. (The name seems a little corny now)
The key idea was to build the whole production procedure around a sheet of card stock carrying ten master cards. These master cards would carry the name of the company, an emblem, if any, and the usual description of the article or service that the company was organized to sell.
The preparation of these sheets carrying ten master cards would be by any process; Engraving, lithograph, or thermograph, and they could be produced efficiently.
Then, under ideal conditions, which didn’t always happen, we would receive instructions to produce 250 cards each, for ten different salesmen. In this situation, we could prepare a litho plate carrying these ten different names and run through 250 of the master card sheets, and thereby produce ten runs of 250 cards each for ten different men. All that remained to be done would be to cut the sheets into the ten sets of cards.
The phrase, "ideal conditions" in the preceding paragraph is important. Each customer is likely to have some special requirement that impedes the production in the simple manner described. But we believed that we could work out a program that would take full advantage of the production procedures, without unduly restricting the freedom of the buyer in serving exactly what he wanted.
The biggest problem we found to be that, in order to make quick delivery—which is one of the essentials—we would have to receive frequent orders, And frequent orders could come only if the buying concern was a large one— one large enough to have repeat orders for their regular men, plus orders for their new men—10 of them -- at least once every two weeks.
This translates into the fact that our prospective customers for this procedure would have
to have at least 300 salesmen or others, who use cards. And if they had 500 men, so
much the better.
It turned out that our prospect list for this work was a short one. It also turned out that the
establishment of new accounts required an unusually long period of cultivation and unusual sales effort. After three years of promotion and production we have a few very good accounts.
It has worked out that our sales office acted as an extension of the buyer’s purchasing
department in managing the flood of orders from their sales reps. It was a service of great
value to the buyer.
This department was producing a normal profit on the sales. This we confidently
believed justified our opinion that our service and price was pleasing to the buyers,

At this time, we were facing another major challenge to our sales effort. The returns on
our circular campaigns had reached an unacceptably low point. For years we had
depended on circulars to dig out sales prospects.
We built our own mailing list by poring over Dun and Bradstreet directories, picking out
the names of companies that met certain criteria of size, credit rating, and business
classification. A more miserable job I can’t imagine. We individually typed up our
circular letter on early “automatic” typewriters that ran on perforated rolls, much like the
old player piano rolls, as we believed that individually typed letters were much more
likely to get the recipient’s attention than a printed letter. Then we addressed the
envelopes, folded the letter along with a couple of samples on a folding machine built by
Herman Sanborn, and sent out about 70,000 of these circulars a year, These produced a
return of between 3 and 3 1/2 %. And we sold about 30% of those responses. In spite of
those miserably small numbers, the result was successful.
But when the return fell to 1 1/2% then to 1%, something had to be done.
We studied the field of consultants for direct mail, and located a husband and wife team
in Boston that was reputed to be the best in the business, who had an impressive track
record. We hired them, and turned over our fall campaign to them, for $50,000. The
husband designed the campaign with a new letter, new stationery and a newly designed
circular. The wife, who was the “list” expert, put together the mailing list. Then we sent
out a test mailing. At the same time, we sent out a similar number of “our old type”
circulars, to the list we had created,
When the returns were in, we found that the returns from the new circulars were only a
little smaller than from our traditional ones. If nothing else, it proved that we were better
than the best, when it came to promoting our product.

At that point, we decided to try a “rifle” approach, rather than the “buckshot” approach.
We asked our sales reps to give us a list of the concerns that they would like us to
circularize in their territory. We did this, and asked the salesmen to call on these people,
whether they answered the circular or not. This was reasonably successful but turned out
to be a heavy burden on the reps, and the effort was abandoned.
Actually, it was in the decade of the 70s that the next generation of Woodburys joined the organization.

First came David Woodbury, Kimball’s son, who had recently graduated from Hillsdale College in Michigan. He had majored in Business, so he quite naturally leaned toward the administrative side of the business. But before he moved in that direction, it was necessary for him to work in various departments to learn how the business worked. Of course he had had a lot of indoctrination over the years for breakfast, dinner and supper at home. He took on whatever assignments might fall in the category of Administrative Assistant. He had a particular ability in the sales area, so he got some experience there as well. As this story proceeds, it will show that he became President in 1989.

The next to arrive was Peter Woodbury, Kimball’s other son. He had graduated from the University of Denver, majoring psychology, (with a minor in skiing) He worked as a free lance carpenter in the summer, and I guess what you’d call a ski-bum in the winter in Breckenridge Colorado. There he had two principal jobs; one in a ski shop, and the second working for the town of Breckenridge in the recreation department, working with little kids on the mountain on weekends.

He joined the company with interest and commitment in the production area, where his skills, interest and experience would be most helpful. He covered many jobs in the pressrooms and machine shop, where he soon became at least as competent, or more-so, than the regular operator, and soon earned the respect of all the production people he was working with. He worked with Bill Shumway, our Production Manager, till Bill retired, when he took over Bill’s job. I should note that in our structure, our department Foremen were really senior lead people, and did not really function as Foremen. It was part of Peter’s job to cover much of the Foreman’s function for all his production people. Peter also was responsible for Building Maintenance, while Ben covered mechanical maintenance. When David became President, Peter was made Senior Vice President which made the point that he was “second in command”. He worked closely with David- Peter managing production, and David Administration and Sales, and for most of these functions they worked closely and shared the responsibility.

Then Benjamin Woodbury, John Woodbury’s son came aboard after he graduated from Rensselaer Polytech. (That’s the other technical college) Ben’s degree was in engineering, but his great talent an interest is in computer programming, construction, and innovation. I understand computers are most effective for operations that are repetitive. Ours is at the other end of the scale, being a complex job shop. But after only a few years, he had our complete operation on computers, permitting us to vastly improve operations, deliveries and make a profit, (hardly called vast).

I must cite one experience. At one point our computers crashed. (I don’t really know what that means, but it was BAD.) Ben calmly asked David what computer operations he would be needing, and to give Ben a priority of the functions he needed to carry on the business. David did this. Ben, and his brother Tom (the latest Woodbury to arrive on the scene,) worked all night, and in the morning we were in business.
Chapter 9
The Challenge of the Eighties

As we ended the decade of the seventies, our company was in an unusual degree of uncertainty. There was the good news of new processes that offered new opportunities, and there was the bad news of declining sales of our established and profitable products. It was in 1978 that an unusual opportunity presented itself.

It started in a little gift shop in Belfast, Maine, when our insatiably curious Boston salesman, Bill Copeland, was talking with the proprietor about some attractively decorated china. In our constant search for a new application of Photogravure, Bill decided that this might be an application for photogravure.

At this point, most china decoration was done by the silk screen process. Bill looked into this industry, and got in touch with a tiny organization in Windsor Connecticut by the name of Arthur Sias Company. He set up an appointment with Mr. George Heinrich, the General Manager of Sias, to visit with us. Bill and I went down to Windsor, and discussed the idea of some kind of collaboration between Woodbury and Company and Arthur Sias Company in the development of a photogravure application to china decoration. It seems that Mr. Arthur Sias had recently died, and Mrs Sias, who was actively involved in the company, was not sure at that point just what the future was for her company.

A short time later, we learned that Mrs Sias had decided to let Mr Heinrich go, so he was available for some kind of arrangement with Woodbury. I wondered briefly at the time why Mrs Sias who’s husband and leader of her business had recently died, would let her General Manager go, but I didn’t dwell on the question.

George (Bud) Heinrich was an intelligent, charming gentleman, a graduate of Wentworth Institute, who clearly knew both the production and sales end of the ceramic decal business.

What was this “ceramic decal” process, and why was this something that could fit well into our organization, and help us meet our problems?

“Decal” is an abbreviation for the word decalcomania...which refers to the special technique of printing something on a temporary paper support, for later transfer to the permanent surface.

A common well-known example is the school seal you slide onto your car window. Sometimes, what is pressed against the new surface consists only of ink ... and in that case the paper on which the print is made, becomes a temporary carrier of the ink.

The word “ceramic” is the descriptive phrase used if this work refers to the fact that it is used in connection with the china and glass industry—- porcelain--fine china, giftware industrial ceramics etc

In the manufacture of fine china, it is customary to arrange for a design of some sort on each piece. A dinner plate, to take a typical example, always has a design, often in multicolor, over the face of the plate.

How does the manufacturer get the design onto the plate? That is where the decal process comes in. The design is printed on paper, transferred to the various shapes of the china, and then the paper is peeled off.
...a decal by WOODBURY assures your product the highest quality and excellence.

Like most works of art, WOODBURY decals are the result of many carefully planned steps. These steps involve artists who make perfect color separations, color technicians who know how to match colors for this medium and superb pressmanship.

Our goal of excellence is paramount. So that your outstanding designs will be reproduced to your complete satisfaction.

WOODBURY CERAMIC DECAL
CHADWICK SQUARE, WORCESTER, MASSACHUSETTS 01605 • TEL. 617 852-5220
The color used had to be most unusual. It included some ground glass (called frit), which melted into the glaze, or glass, when it was fired. In brief, the decal process used as part of the preparation for putting the design (often in many colors) on chinaware was full of technical problems, but if these problems were skillfully solved, it was a perfect mechanism for achieving the desired result. Namely, the efficient decoration of fine china, with its varying shapes.

No doubt, enough has been said about “ceramic decal” to indicate that here was a highly specialized division of the graphic arts which we could possibly handle. After all, we were not “printers” but “graphic arts specialists” who had artists, engineers, equipment, facilities, and sales experience into which ceramic decals could easily fit. There were many technical problems—which would be a first class challenge to our artists and technicians, as well as tricky enough to threaten the success of competitors.

Beyond that, the work of the “ceramic decal” mini-industry was a well recognized segment of the fine-china and glass industry, American concerns producing this work were not many, and the demand was often more than they could satisfactorily fill. There were successful decal printers in Europe, but we felt that we would have a geographic advantage.

In summary, the picture emerging from our analysis indicated that here was something we could produce with top quality, dependability, and with the support of our other established operating departments.

So, acting on this favorable appraisal, we went ahead and made an arrangement with George (Bud) Heinrich.

The following year and a half was occupied by building some of the machinery and equipment that would be needed, as well as a building to house the operation. Bud was an expert, if overly meticulous, machinist. We bought him a milling machine, and he went to work and built our first silk screen press.

It is interesting that this process of producing ceramic decals requires extremely close and accurate registration—any visible variation would ruin the work. In order to achieve the conditions basic to such extreme control, the pressroom had to be perfectly “climate controlled.” This means not only powerful air conditioning, but also unusually heavy insulation in the walls and ceiling.

In this regard, an interesting note. We had contracted with Tucker and Rice, Worcester’s best heating and air-conditioning outfit with whom we had worked for many years. Their chief engineer called me, and asked for a chance to talk about the contract. He got right to the point. They were withdrawing from the contract because they decided that they were unable to meet the unreasonable technical demands of Mr. Heinrich. I asked Bud to be more reasonable, and asked Tucker and Rice to stay on the job, which they did.

During this time, too, the new department was busy establishing the essential sales contacts, and wherever appropriate, demonstrating to possible customers that our personnel and special equipment were more than adequate to meet their needs.

I noticed that as Bud was building his machinery in the machine shop he and Ben Woodbury would have occasional contact regarding some engineering aspects of the
project. Bud considered himself a superior engineer, but Ben really was one, so sometimes the sparks flew.

Everyone was encouraged as we produced trial orders, and won complete acceptance from the customers. We began to serve, apparently with complete satisfaction, some of the leading American producers of fine china and glass.

But along the way, there were some problems.

It was becoming uncomfortably evident that this new department was not functioning as it should.

There was an increasing tension among the individuals concerned and between the manager of the department and various officers in the general management of the company. Peter Woodbury, who was working as a member of the decal team found Bud’s management style particularly difficult to work with.

We transferred an experienced engraved pressman to the department, but it wasn’t long before he asked to be re-assigned to the engraved pressroom.

To say that it was a matter of “personality conflict” would be a true statement, but to diagnose the problem in these terms, did not cure it. And, after all, personality conflicts are common, and progress has to continue, despite them.

This was far too serious to ignore, or to rationalize. It was destroying the department and its ability to perform.

At last the issue was faced. Mr. Heinrich resigned from our organization, his investment was returned to him with a generous increase in value, and the rest of the department closed ranks to continue the development.

This history would be incomplete and seriously lacking in substance if it did not include at this point, a few comments about the “Heinrich episode”

Arrangements had been made with Mr. Heinrich on the basis of hisundoubted technical expertise in the ceramic decal industry. The concern for which he had been working for many years had been successful, and the difficulties that led to the reorganization apparently had their roots in the death of the founder of the enterprise.

Mr. Heinrich himself was a good salesman, not only for his services, but also his understanding of what was needed in organizing a successful venture in this field.

The first year and a half were occupied by designing and building the machinery and equipment needed as well as the housing for the project. On all this, Mr Heinrich was “on his own” to a very special degree. His opinions on what was needed were, under the circumstances unchallenged, so progress was made without much supervision from general management. And there was little or no occasion for integration of his work with the established procedures and controls existing throughout the rest of the Woodbury organization.

This period of preparation eventually came to an end. Then, the questions of employment procedures, prices, internal planning, purchasing, all the basic infrastructure of any organized industrial operation showed up with startling clarity, the gap that existed between the Woodbury attitude and methods, and the attitudes and methods that were being developed in the decal department.
Take the question of “attitude” between manager and employee. The “Woodbury” attitude was based on a constant and very basic assumption that everyone was doing his normal best to perform as expected, that learning is unavoidable, that mistakes do occur; that progress can be made by effort, learning, correction, and free communication, based on mutual respect between all individuals concerned.

Somehow, this simple statement of “attitude” had become lost. It was replaced by something much less satisfactory and agreeable. The result was tension. The result for many in the department, going to work in the morning became something to dread. There is no need of extending this description of the problem. But when it had been solved by the resignation mentioned in the story, the change in “attitude” was almost miraculous. There is no doubt that the commercial results, for all concerned would be far better.

This had been, for awhile, a painful business. It forced some clear thinking, and a basic re-assessment of the fundamental goals of the enterprise. It renewed our belief that a satisfactory atmosphere in the work-place is essential--- that for all concerned, best results can only be obtained if assignment and supervision make it possible for people to really enjoy their work, and take pride in it.

This may be an unrealistic ideal, especially in work that is intrinsically over-simplified and monotonous, but with us, fortunately, we are dealing with such a variety of art forms, and production challenges that there can be a continuing sense of adventure in the work. If we can accept this as an ideal, and deal with each new order as an opportunity for achievement, the final result, for all concerned is likely to be good.

After Bud Heinrich left, Henry Sroka, who had been Bud’s assistant, took over as Manager of the department. Hank was a quietly competent, experienced technician in this complex field, and well liked by all. He had all the talent that the job required, but he did not have the industry contacts that Bud had, which seemed to be a requirement in making the sales.

This decal-decorating-china industry was a strange one. There were three basic groupings in the industry. At the top was the fine-china industry, like Lenox. This is the market we targeted; then was the “giftware” market, and then a segment marketing commemorative plates.

We got some orders in the fine-china area, but not enough to keep us busy. So we moved into the giftware market. This market was managed by “developers” who would buy the basic product, contract with a “printer” to create the decals, and then contract with a decorator to decorate and fire the product. Then the developer would sell it. If there was some defect in the product, the decorator blamed the printer, and the printer blamed the decorator. And, of course, the product that was decorated had been spoiled in the process. This led to endless hassles. Then there were the commemorative plates. We had experimented and perfected the steps necessary to produce beautiful full color plates. We produced a few. The problem here was that if the plate sold, we got paid, If it didn’t sell we didn’t get paid.
In the stationery business, bad debts were a very minor problem. We were working with well established, responsible organizations, who usually paid their bills promptly. But in the decal business, for a number of reasons, bad debts were a serious problem. As I recall, they began running at something like 30%. This was intolerable.

Selling was a problem. Most sales were made through open-house cocktail parties thrown by the fine china companies, where the decal printers would socialize, and make their pitch to the proper people. In addition, there was the annual China and Giftware Show in Atlantic City, where everyone would congregate, where it was an opportunity for the decal people to make their pitch.

This was very foreign to us, and never learned how to make it work.

We got a few big orders for decals for decorating glassware. This glassware would match the design in the dinnerware of the fine china. This idea never caught on. As we neared the end of the production on these big glassware orders, there was nothing in the pipeline, and we could not see anything ahead.

We decided to close the operation.

We offered jobs to everyone in the department in our stationery operation. Some took us up on it and became valuable employees. Some opted to go elsewhere. Hank Sroka had a difficult time landing a satisfactory position, but he finally landed a good production job in the Boston area.

This adventure taught us two things.

From here on, Woodbury and Company became a “sales oriented” company and no longer was production oriented. The sale comes first.

The second thing it showed, if only to us, was that we had the courage to try to something quite different, in order to ensure the future of the company. I remember thinking how this operation might someday equal the volume in our stationery operations.
Chapter 10

More Challenges 1990-2001

Up to this point The Woodbury and Company Story has been based on Harold Woodbury’s Notes on the History of Woodbury and Company. On August 28, 1988, Harold Woodbury passed away in his 93rd year. So I. Kimball Woodbury have volunteered to record the company history for the years following 1988.

Harold Woodbury maintained his interest in the company right up to the end. He retired on his 90th birthday, at a nice reception in the employee lounge. His retirement lasted a couple of weeks, and then he was back at his desk for at least part of most every day. But after his wife died, and he finally got her affairs in order, he found that the effort to come in to the office was more than he wished to make. He did attend the Annual Meeting in February 1988. Each time I visited him, he politely listened to the family talk, but what he really wanted to know was how it was going at the office. And he’d ask questions like, “Have you fired Lippman yet?”

He reviewed his notes on the history of the company, shortly before he died, and commented that he would like the opportunity to rewrite it in a more orderly fashion. I have attempted to do as he wished, as I have edited this Woodbury and Company story.

My style will not be as attractive, but I do feel the need to keep a record of the most recent years, which have been a very significant and exciting part of our history.

In the early 1990s, we entered a whole new chapter in the company’s history. In addition to the new leadership team, we were introduced to a new, dismaying, challenging, frightening business climate. The principal factors in this new chapter were 1. the sharp recession, 2. the reorganization of our Sales Department and program, 3. the impact of Federal and State regulations on our safety, hazardous materials, and air quality and water control programs and more subtly, as noted in earlier chapters, the serious decline in the appreciation and salability of beautiful corporate stationery.

The recession (many called it a depression in New England) had just begun in earnest when the new team took over. The New England based computer industry, the real estate boom and its closely related banking industry all collapsed in New England at the same time, pulling the rest of the country along with it. All the weaknesses in our product line, discussed in earlier chapters were brought sharply to our attention. Our sales reps had to be replaced in Cleveland and Chicago. New reps couldn’t make it, and we had to discontinue the very expensive efforts to maintain those two territories. The high cost of selling “new” work was crippling. Two of our senior reps, our number one man in Boston, Bill Copeland, and Don Heywood in Hartford defected to work for a competitor in New York. We tried to dissuade Bill from leaving, but he felt that he could make a lot more money and work only half as hard, and Don simply followed Bill’s lead. We had a painful and expensive lawsuit over their non-compete contracts. A judge forged new law in dismissing our suit against Don Heywood. The whole experience was a disaster for both Copeland and Heywood, and it had a
Serious, negative impact on the morale of the sales staff and our whole organization.

The recession continued to hammer us. Our customers were “shopping” as never before. Loyalty and Service were no longer considerations, and many of our customers could no longer afford our quality of work.

After the demise of the Decal Department, the decision was made to convert the new section of the plant, which had been the Decal Department, along the north side of the building, into a modern “new business” and art department area. We were able to design it in such a way that all photographic processes were located in one large darkroom in which we installed the best automatic equipment, insuring both uniform quality and high efficiency.

At that time, we installed the first generation of computers in the art department. This equipment permitted the artist to create the design in the traditional way, but eliminated the need to “hand paint” the design for presentation. At the same time it created the final artwork if the customer approved the design. The customers liked it because they could see exactly what they were going to get.

At first, we were limited to strictly black sketch presentations, but soon a color transfer system was made available, so that we could show the approximate color of the final work.

At this point, early 1989 it seemed time for Kimball to step aside as leader. David had been getting considerable experience in the administrative and sales end of the business. Peter had achieved considerable success in managing the production end, which involved working with all the production people. Benjamin had been immersed in skillfully bringing us into the computer age, with much work yet to be done. It was very clear to all that it was essential that we have a sales oriented leader, and David had experience and ability to fit that role. and he was elected President.

I recall at the meeting at which David was elected President, Earl Berry asked, “so who’s the CEO?” I took a deep breath and said “David”.

Peter was given the continuing responsibility for Production and Building Maintenance, and to recognize his position as Second-in-Command, was given the title of Senior Vice President. While Ben continued to cover his interest and outstanding ability as engineering leader, in computer management, Mechanical maintenance, and the technical aspects of Regulatory Compliance, with the tile of Vice President.

While those are the titles and responsibilities of David, Peter and Ben, the management team also included Earl Berry and Jon Nunez. They all shared the responsibility for the success of the company with ability interest and commitment.

As a practical matter, David and Peter shared the ultimate responsibility for the success of the operation.
As John Woodbury was anticipating retirement, we brought on board Bill Donohue, who came to us with an impressive experience in sales leadership at a publishing house in the Boston area. It was his assignment to get to know us, our product, and help us turn our sales figures around.

During this period we were spending money upgrading our press equipment in Thermograph and Engraving. We added a 2-up, 2 color Hamadastar in Thermograph (for both litho and thermo) and completely rebuilt 2 Modern engraved presses and feeders. We installed a new, highly sophisticated “computer aided design” (CAD) system that, at the time, was the best in our industry. Under Ben’s leadership, we were able to create a CAD system that was tailored to our unusual need. The artists could now create a design on the computer screen, with incredible flexibility; and the system permitted us to produce the final negative, line or halftone, ready for platemaking.

The business card operation was completely computerized, and when tied in with FAX ordering, cards moved through fast and with a high degree of accuracy. All this permitted us to reduce prices where we were vulnerable. We combined jobs, and reluctantly, laid off a few people, to match our production capacity to what we were able to sell.

About this time, 1994, we needed to give Ben some help in his computer activity. The strongest candidate was his brother Tom, who presently had a good position with a Boston concern. So we brought Tom on as assistant to Ben in our very important and mysterious (to me) computer department.

During this period, new State and Federal regulations regarding safety and environmental issues took on oppressive new requirements. A small, and not unreasonable, inspection by OSHA triggered a major program to make the operation not only free from accidents, but free from hazards. This took the time of Ben and Peter and Earl (to keep track of the administrative details), a mechanic and an electrician many months to bring us into compliance.

At the same time environmental regulation compliance dominated Ben’s and Earl’s time to establish Hazardous Material compliance and training of all our employees. (Our reps in offices anywhere had to be “trained” in handling all 200-odd “hazardous materials” from copper plates to cyanide—that we use in the plant.) All this was accomplished under the watchful eye of a competent and expensive consulting firm and legal oversight. It should be noted that this effort did force us to reduce dramatically our use of a few really hazardous materials, cyanide, for example, and often expensive ones. Tied in directly with this effort was the compliance with air and waste water regulations.

I was asked to identify which sections of the roof drained into which roof drains, so we could identify the source of our run-off water—which had to be done, of course, when it was raining.

I asked Ben why we had a problem with air quality. He reminded me of the tons of high powered and hazardous solvents we used in the pressroom that evaporated into the air.
This regulatory effort, while necessary and very expensive, was a major distraction to our primary goal of survival. Survival depended on our ability to sell enough product to cover our costs. All the negative factors noted in earlier chapters combined disastrously in the early 90s.

The whole business climate was new, and seemed even more difficult for us. We had to define the new conditions, and tailor our sales program to meet these new conditions. We brought in a consultant who specialized in sales support, Paradigm Management, to help us to make these changes. It was soon after we brought Paradigm on board that we realized the Bill Donohue, our new Sales Manager “just didn’t get it”, and would have to leave.

So David, with the help of Paradigm, and the whole organization went to work to rebuild the sales organization. Paradigm helped us find a replacement in New York for Sheldon Lippman, who had been with us for about thirty-five years; and took over the basic sales training of the new reps- which was essential at this point in time, and a function that we did not have the skill to accomplish. Though they did not help us to increase our sales as they had “promised”, they did help us to reestablish our sales organization.

Early in 1994, partly due to a reorganization at Paradigm, we worked out an arrangement with them to help us train and manage our reps and to help us find and train a new Sales Manager. For awhile, we thought perhaps we could function well with David acting as Sales Manager, with some occasional help from Paradigm. It soon became evident that we must have the full time effort of an experienced Sales Manager. This was more true now than it ever was.

It turned out that, again due to a reorganization at Paradigm, that the consultant assigned to us, Michael Collins, was looking for a new position, and after only a few painful conversations, Michael joined our organization. This turned out to be a critical and positive move in our recovery.

The first years of the 1990 decade were very difficult indeed. Experience, based on what worked in the past, was no longer relevant. As a matter of fact, it was often a liability.

We used to wonder how much we could spend per circular lead, and still survive. That became irrelevant. People simply did not reply to circulars.

We wondered what we’d do when this happened. It happened.

We needed something like three hundred new names to hold our own. We were selling about fifty in the early 90s.

We knew engraving sales had been declining for years, and we were unable to stop the decline. The fact was, that we had been able to simply increase prices to maintain the profit, telling ourselves that our work was so good, that people would pay for it. That changed when our customers were hit with hard times.
It used to be that buyers and managers knew that it was important that they express their success with an engraved letterhead. At least this was the case in the Northeast part of the country. Not so any longer.

We had become used to making a modest profit every month. Not so any longer. We had learned to ride out short periods of recession, being confident that in a few months things would turn around, and we’d be back making a profit again.

We expected to have a small, continuing turnover in our Sales force. But in the early 90s three senior reps left, and we were unable to hire successful replacements.

We believed that even if he had a hiccup in the sales organization, that we had a lot of momentum going, and customers would be reluctant to give up their good stationery when they experienced economic troubles. We learned that this momentum faded fast when customers were in trouble, and they were not serviced by a familiar rep.

We computerized, we combined jobs, we aggressively laid off good people, not only production people, but management people. We did not replace our Art Director, our Personnel Manager, Our Customer Service person, and lots of other good people. But we could not cut fast enough to reestablish a profit. So we went around again, thinking we could not cut further. But as sales continued to fall, we could and did cut further. And again. It was brutal. It was totally demoralizing for management, who had the responsibility to be optimistic about the future, when they felt terribly discouraged. We asked many time, “are we going to make it?”

We had the real estate as our backstop, but we would not mortgage that. We had to turn the business around.

No one, outside the family, will really know the work and the anguish that dominated this period.

The sales, competitive situation became increasingly challenging. The technical-communication landscape had been altered COMPLETELY in the last three years. Communication with FAX transmission was universally accepted as normal office practice. But that was quickly supplanted by the use of e-mail, which is now the standard personal and commercial communications practice on a worldwide basis. The landline telephone and regular mail service are becoming obsolete.

Our sales organization, under Michael Collins’ leadership, has changed our “product” from business stationery to “Image Enhancement.” For people who understand the importance of enhancing their image in this competitive world, we can sell them on the idea that fine business stationery is an effective tool to accomplish their goal. This is proving to be a successful approach to our sales.
To survive in this business climate, we had to come up with a new philosophy.

It might be expressed this way. It was probably in 1994 when I said to David that now that we had made all these changes in equipment and practices, we could take a deep breath and let the changes settle in. His reply was, “No we can’t. We must continue to make changes as long as there is room for improvement anywhere”.

Another example. Bill Shumway and I believed that we could get maximum productivity from our people if they were “comfortable” with what they were doing and how they were doing it. That no longer worked.

The new team had to shift the attitude of EVERYONE to being dissatisfied with what they did and how they were doing it, and to figure out how to eliminate every obstacle to doing the job fast and correctly, which, it turned out, improved everyone’s sense of satisfaction, instead of the opposite.

Peter continued his daily Foremen’s meeting, at which these obstacles to smooth operation were discussed, a solution reached and implemented at once. Ben continued to look for, and find new equipment to meet these goals. Ben and Tom continued full pressure on new computer systems and applications. It was expensive and challenging. By March 1998, we were still spending large sums of money to continue this progress. We believed that our art and pre-press facilities were the best in the industry. Our business card operation was the best equipped to meet our niche in the market. The same can be said of our litho-thermo equipment. All of the above allowed us to significantly lower our prices so they were competitive, improved our deliveries so they were no longer a customer service problem, and in 1997 we made a tiny profit. A truly major accomplishment.

All the above produced an improvement in productivity of about 50%. I have always felt productivity statistics are suspect, as people, products, methods and equipment are constantly changing. But in our shop, the dollar of sales produced by each employee improved about 50% in the last five years.

The year 1997 produced a misleading measure of success by producing a small profit. On closer look, it was the result of some of the above, to be sure, but to a large extent, unusually large sales of First Day Covers, made a big difference. And there also was a “windfall” investment credit. The year 1996 was a truer measure of our operations when we lost over $200,000. But in 1997, as I noted above, we were able to make a small profit, a $200,000 turn around. We hoped that this indicated real progress. Business cards had become a very significant part of our production. 80% of the NUMBER of invoices we issued were for business cards. We wondered if we could do more in this challenging market.
During the 1990s the company was reinvented. We began to relax a little. Many things made this possible. But fundamentally, we had a good cash reserve, and we had no debt. This permitted us to make the changes that were necessary to turn the company around.

The first few months of 2001 were satisfactory, and we even made a modest profit. Then in early summer, sales started to decline again. This was partly due to lack of sales coverage in two strong territories, New Jersey and Maine.

A possible recession was looming on the horizon. When people lack confidence in the future, they postpone buying our product. And the extremely rapid growth of e-mail and Fax for business communications became a serious threat to our sales. We had known that e-mail would be a threat, but its suddenness surprised us.

In June we had an interesting offer for our real estate. For years, people had been interested, but we simply rejected all inquiries. But this time, we showed some interest. The word got out that we might be interested in selling. We finally received a neat, clean offer for what we believed the property was worth. We agreed to the sale, with the planned closing about the end of the year.

Immediately, we had two major projects going at the same time. The real estate project, and the future of the “printing business”. In order to get the proper picture, this story will have to report both projects as they proceeded.

For tax reasons, the sale of the real estate had to be a “swap”: a so-called 1031 deal, which meant that we had to find a suitable piece of industrial property to buy, to avoid the prohibitive capital gains tax on the sale. This would permit the swap of the valuable, but non-income producing Chadwick Square property, for income producing property. This would be some industrial buildings that would produce lease income to the owners.

We had a purchase-and-sale agreement in hand for the property. This meant that the buyer had sixty days to do so-called “due diligence” to make sure that the survey, titles and environmental conditions were satisfactory. This was accomplished without any problems by September 1st.

The sales problem at the company became critical, and the slow bleeding became a hemorrhage, when monthly losses became unacceptable. In the early fall, we asked our friend, John Dumochel at Artcraft Engraving if he might be interested in working out some kind of arrangement with us. It seemed to us that the only possibility of a profitable operation would be to combine our two companies, involving a minimum overhead. At a meeting in September, it became clear that our shops were not as compatible as they seemed at first, particularly in our sales philosophy, so we told John to cool it for now. It seemed just too complicated to do both a sale of the company, and move at the same time.
Meanwhile, we were exploring where we might make a real estate purchase that would satisfy the rule for the 1031 swap. We looked seriously at the humongous Jamesbury building (about 140,000 square feet) on Lincoln Street. We’d move into one end, and lease the rest. We then considered buying just the two smaller Jamesbury buildings. They were a little more expensive, but were essentially leased up. And the big building simply overwhelmed us.

We looked again at the cost of moving, and at the growing losses, and concluded we MUST sell to Artcraft. John was still very interested in buying. Mostly he wanted the engraving, but he’d take it all, if he must. The plan was that he’d set up a production branch in Worcester somewhere, and move the engraving to Attleboro. This would meet a primary objective of protecting the jobs of our employees. John made us a firm proposal, essentially based on 7% of the amount of business he could transfer to Artcraft and a fair market value for the rest of the assets. We thought it was a fair proposal. It also seemed to meet the requirement to make the best deal possible for the owners.

At a Directors meeting the sale to Artcraft was confirmed, but only after some strongly stated objections from Ben, who made it clear that he believed that if given the chance to run the business, he could make it profitable.

Whatever happened, we had to move and SOON.

John Dumochel then made a new suggestion. He offered to buy the engraving business at once, and move it to Attleboro. This would provide the company with enough money to buy out David and Peter, freeing Ben, Tom and Michael Collins, and Ron Berube and Judy Moradian to run the company. David offered Ben this opportunity Ben declined, saying that he needed David to run the non-operational stuff and he needed the engraving department to make the package work.

John Dumochel then laid his cards on the table and suggested, “I’ll move the engraving department to Attleboro at once, You move the rest of it to leased quarters, hold it together, and as soon as I build an addition on my plant, say in a year, I’ll move it all to Attleboro as quickly as I can”.

That put an entirely new complexion on it. It failed to protect the employee’s jobs and we felt that it would be impossible to hold our employees and customers together on this temporary basis for a year. So with much reluctance, we told John Dumochel our decision not to sell after all. Being the gentleman that he is, he understood, and offered to help us through this any way he could.

We still had to move at once. We all but signed a lease in Auburn Industrial Park in a suitable building, but which had only 20,000 square feet. On careful thought, we decided that this would not work. And it would be better if we could find a building that we could buy. We looked at 25 Bowditch Drive, a 30,000 sq. ft building, which was empty and available. We made an offer and purchased it.
This was part of the 1031 swap deal, but did not fully satisfy the requirements, so we also bought the two smaller Jamesbury buildings.

On January 7th, 2002 we had a full review of our financial position. All our cash reserves were exhausted.
We were facing perhaps $250,000 to fix up the new building, and move (which was quite overwhelming, but possible)
We had been losing - on a cash basis, $30-50,000 per week in recent weeks. Sales continued to be at a disastrously low level, at about 50% of what we needed to be profitable.
And there was no improvement in sight. The overall economic forecast was for revival some time in the second half of 2002.
e-mail and fax had “destroyed” the market for our products. Our customers might continue to use a small amount of stationery, but nowhere near the traditional level.
We make our profit on the repeat printing, not on new accounts. So if the sales ratio of new to repeat became something like 75% new business, there would never be a profit.
The conclusion was clear.
Moving would not solve any of these problems. We must stop the hemorrhage at once.

We announced to the employees on Friday, January 11th, 2002, that we were closing at once.

The conclusion was clear.
The implementation was devastating.

The reaction was shock, sadness, but with many expressing appreciation for the many years of a great ride.
David’s letter is part of this record.

Arrangements were made at once for Artcraft to take over our accounts. John Dumochel gave us a short letter of agreement to pay us for any business transferred to Artcraft, and Artcraft would pay Woodbury and Company the market value for whatever equipment and supplies that they could use. Woodbury and Company agreed to do all we could to transfer as much business to Artcraft as possible. The whole transaction was completed without any problems.

Kimball R. Woodbury
October 1, 2009

Over the years Woodbury and Company produced millions of beautiful letterheads, envelopes, business cards, First Day Covers, Stamp Album Pages, Currency envelopes, bank statements, and many other specialty items. Each item was produced with interest and care by a group of artist-craftsmen and women who took great pride in their work.
Let me say first and foremost - the family is so very sorry for this devastating turn of events.

As I mentioned in today’s meeting, we had planned on moving the business until this week, when it became painfully obvious that the Company cannot, financially, continue to remain in business. The corporate savings accounts are now depleted. We used the cash in these accounts to help fund the operations of the business, and more recently, the cash has been used to fund payroll. (Simply put, we are borrowing more than $5,000 per day to pay our bills.) It had been our fervent hope that we would have been able to move to a new facility and remain in business. But, we simply do not have the cash to do it.

Peter will be sending you, by Registered Mail, a list of benefits that you can expect to receive, but briefly, each of you will be receiving 2-weeks severance pay which will be paid and mailed to you next week. You will also be eligible for unemployment benefits to the fullest extent possible. For those of you who have Tufts Health Care, the Company will continue to pay its share for you for three months, at which time you will be eligible for continued coverage under the provisions of COBRA.

The family will be forever grateful to each of you for your contributions to the Company’s efforts to be the best supplier of commercial stationery that it could be. Since our great-grandfather’s decision to go into business in 1879, each day has brought its share of risk and opportunity and uncertainty. We are so sorry that it couldn’t have lasted forever.

On this indescribably sad day, our family thanks you from the bottom of our hearts and we wish each of you the very best in the future.
EPILOGUE

The company reorganized as a Real Estate Investment Company, with the 25 Bowditch Drive building as the base. The company is managed by David Woodbury as President and Ben Woodbury as Financial Officer. The two of them are settling in as a strong team in a business totally foreign to them. A recent review shows the new “company” to be financially successful, and the company currently distributes an attractive dividend to all the stockholders,
Appendix
Personalities

JOHN C. WOODBURY

John C. Woodbury was born in 1856 in Charlton, Massachusetts. The chapters in this story of the company which precede this one, have recounted the mixture of struggle and triumph that the company had experienced since the beginning. John C. Woodbury was the heart and center of this whole story.

The year 1856 was the year in which the Republican Party was born, and that at its first convention, it nominated John Charles Fremont for President of the United States. Perhaps it is not surprising that the new son in the family of Moses Davis Woodbury was named John Charles Woodbury.

After only a country elementary school education, he entered what later became Worcester Polytechnic Institute (but which was then called The Worcester County Free Institute). Beginning his course there with the obvious handicap of a limited preparation, he ended with scholarship honors and as valedictorian. Embarking on his career with great natural talent, he added to this, a keen mind, a great determination and perseverance.

His constant goal was to achieve the superior; to advance along new and progressive lines. Despite many setbacks, and at times obstacles that must have seemed overwhelming, he did reach his goal of achieving the superior, for this is what the company has achieved in the specialized field of letterhead design and production.

Above all else, his was the artistic approach. Whatever he touched, it received from him the influence of his sensitive and broad gauge spirit.

One other point... and perhaps the most important: His standard of business ethics was strict and undeviating. He never preached about it, he simply did things the right way. There were some instances where this cost him money or equivalent. But he never wavered in the belief that the right principals were to be followed; and the consequences would take care of themselves.

In 1931, after an illness of about six months, John C. Woodbury, the founder of the company passed away.

JOHN EDWARD WOODBURY.

After graduating from Worcester Tech in 1908, he plunged at once and with great energy into solving the company’s technical problems. First, there was the perfecting of the Photogravure process for making copies of many sizes of Bird’s-Eye-Views. Then adapting and adjusting the process for power production of letterheads with a photogravure picture.

The sky camera next absorbed his attention. This was a spectacular and technically successful venture into a special photographic objective. The fact that it was not a commercial success was in no respect any fault of Edward Woodbury’s very skillful engineering.

During the following years, his attention was given to various problems in the production of Engraved letterheads... the list is too long to recount here. They are well covered in the rest of this story.
Appendix
Personalities

In 1935 he embarked on the conquest of the century-old Lithographic process so that it could be used successfully for the production of commercial letterheads. This was, again an almost immediate success, and enabled us to enter the field of lithographed letterheads, and rapidly built up a volume of many millions a month.
The last few years of his life he devoted, as he expressed it, to the “strenthening of the company for the benefit of all.”

In 1949, after a lingering illness, John Edward Woodbury reached the end of the road. Quite literally. he had spent his life in the service of the company.

HAROLD D. WOODBURY

Exactly when Harold Woodbury began his service to the company cannot be determined, for his first job with the company was sweeping the floor Saturday afternoons. (as related in an earlier story) This continued for several years while he was in school.

In 1910, upon graduating from high school, he became bookkeeper and this task accounted for approximately two years until he entered Clark College.

After graduation from college, he returned to the company's employ, doing the bookkeeping work, and beginning to extend his interests to many other administrative duties.

After two years in the military in World War I he became Assistant Treasurer, and began his long service in the development of administrative controls, sales department development, production, office routines and the like.

During the 1920s, we were members of the Engraved Stationery Manufacturers Assn, although not very active. During the depression of the years 1930 to 1933 the Federal Government set up the NRA— the National Recovery Administration -- to try to keep things under control and to help get business going again. Each industry had its “Code Authority”, with power to issue price lists, control wage rate changes, etc. Harold Woodbury was appointed to the Engravers Code Authority, one of five appointees in the country. This was an interesting assignment, and it led to a continuing interest in the statistics of the engraving industry, and to a study of price lists, and the like, which led him to become one of the leaders in the industry in these fields.

From 1942 to 1945 he was absent in the military, serving as an administrative officer in the Air Force.

Later, as the company continued its interest in the engraving industry, and was in fact one of the larger and more influential members of ESMA-- The Engraved Stationary Manufacturers Association-- Harold Woodbury became its President for a term in the late 1950s.

His work with the company has been in the sales and administrative field, and he has been largely responsible for devising the routine, controls, and systems that have formed a basic part of the company’s operations.

On the death of John Edward Woodbury, he became President. And in 1966, he moved up to the newly created position of Chairman.

He officially retired in 1983, after seventy three years of service, but continued to come in to the office, at least for part of a day, until he died in 1988.
KIMBALL R. WOODBURY
Kimball Woodbury joined the company after he graduated from WPI in 1947, with a degree in Mechanical Engineering. My (it’s easier to talk in first person) first assignments were to the different production departments where I became familiar with the many technical processes involved in making engraved stationery. Edward Woodbury thought that it was important that I learn one department thoroughly. There was a vacancy in the photographic department, so that’s where I worked for a few months. I never got to be expert, but I did learn what standards were expected in each phase of the work. Edward was not thrilled with the quality of my work, but he forced himself to be patient.
I made and retouched a few photogravure plates, but certainly not customer quality. At some point I was given the title of Production Manager, and had the responsibility for getting the product out with quality and efficiency. During this period we made no important engineering break-throughs, except Herman Sanborn’s envelope feeder. But we did manage to minimize the effect of the almost daily technical problems as they arose.
One of my on-going duties was to act as “gate-keeper” of Bill Copeland’s inspirations. He was very creative, and was smart enough to be exploring all these ideas, while still selling a good volume of stationery.
He uncovered the idea of using heat-transfer multi-color decals as applied to our stationery items. We actually did apply this idea, and it worked for a while, till the decal supplier could not meet our exacting register standards. He worked with a paper manufacturing research outfit that discovered how to make a paper, to which could be added a fake “private watermark” relatively inexpensively. He convinced the research outfit that there was a goldmine here, and tried to get us to take on a franchise for the east coast. I declined. Nothing ever came of it.
He introduced us to ceramic decals, envisioning this as the answer to our future use of photogravure. See comments on this subject in an earlier chapter.
He got carried away on the application of “pad printing” to photogravure. Not a chance, but he was very persistent.
He invented a collectible envelope for baseball cards, to include the player’s autograph, that he thought would supplant Washington Press First Day Covers. He “studied the market” and convinced us to try it. We gave it a good test. We didn’t get an order. Not one.
My challenge was not to turn off his enthusiasm, and to keep his eye on selling stationery.
So during my “watch” we kept the place running, but without any new or creative developments, except the envelope feeder, (unless you want to count the decal adventure)
In 1989 I stepped aside and turned the leadership over to David, Peter and Ben as leaders of the new team. I stayed around for “consultation” until the decision was made to close the operation, which had my complete support and blessing.
JOHN C. WOODURY
This is John Clark Woodbury, not John Charles.
John Clark Woodbury, John Edward’s son, joined the company in the middle 50s on his graduation from Harvard, and after he had completed his duty in the Coast Guard. His assignment was to lead the advertising section of the Sales Department. The primary function of this department was to manage our direct mail effort of about 70,000 circulars each year, while maximizing the return of the circulars, while keeping the cost under control. In addition, this department took care of all the various special needs of the sales organization. This department function was soon on a higher level of efficiency than it had ever been.

DAVID K. WOODBURY
David K. Woodbury, Kimball’s son joined the company in 1970 after he graduated from Hillsdale College with a degree in Business, and had completed his duty in the Army Reserve. His duties were a wide variety of functions that come under the general title of Administrative Assistant. He spent time in all the departments, as most beginners did, and became familiar with the general administration of the business. One of his duties involved our renewed interest in ESMA. He, and his brother Peter, became interested in ESMA and developed a network of friends that became an important mutual support system. In addition, some lifelong friendships were made. It is also safe to say that the final arrangement with Artcraft Engraving would not have happened had it not been for the friendly relationship formed in ESMA.

During the economic crisis of the 1990s, it was necessary to “reinvent” the company, throwing out many of the old ideas and prejudices, and putting in place the embrace of change, rather than a reluctant acceptance of change. These changes that were put in place under David’s leadership, would probably have extended the life of the company for some time—had it not been for the e-mail debacle.

As President, David took a strong lead in making a series of tough decisions as we approached the final days of the company, and he presided over the closing with resolve, compassion and dignity.

PETER H. WODBURY
Peter Woodbury joined the company soon after David in 1976. Like the rest of us, he was first assigned to work in the various production departments, but unlike the rest of us, he was soon operating the equipment as well—or better—than the regular operator. And he was making equipment repairs more quickly than the mechanics from the machine shop. This stood him in good stead when he became Bill Shumway, our Production Manager’s assistant. And when Bill retired, Peter took over as Production Manager, which also included the management of the building.

When Kimball retired, and David took over as President, and Peter as Senior Vice President, Peter and David made a great team, who shared the leadership of the company.
EARL D. BERRY

Earl Berry joined the organization in the early 70s, coming from a position in the Brookfield Savings Bank. A graduate of Clark University, he first assisted Tom Bryant in the financial operations. As time went on, Earl became a stronger and stronger member of the leadership team. It seems that he absorbed a number of functions that the other leaders were less inclined to assume. He took the lead in legal oversight in a number of areas like Regulation Compliance. Under his “watch” we made a major change in our employee insurance program. He became an expert in health insurance, and participated in a citywide effort to get that hemorrhage under control. He knew as much about that problem and the possible solutions as anyone in the city. As Personnel Director, among other duties, he took the lead in that complex and critical area.

The management team looked to him for leadership in all these complex highly detailed areas. If the team started off in the wrong direction on some subject, Earl would step in and tactfully get us back on track. His contributions were immeasurable during his “watch”.

At this point on Personalities, we pick up Harold Woodbury’s notes.

The record already chronicled describes the work of the men who happened to serve as leaders of the concern. The initiative and originality of the group probably was determinative of the basic progress of the venture. But these individuals could never have achieved what was actually accomplished without the loyal and intelligent work of the people who are the subject of the following paragraphs.

Before proceeding further, the author must concede that his personal knowledge, as well as the written records, are not adequate to provide us with the picture of the true contribution of the people who worked with Messrs. Keyes and Woodbury in the early days. Nor are they sufficient, either, to cast satisfactory illumination on the personalities in the “second echelon” in all the years prior to 1910.

However, from the beginning of the second decade of the twentieth century, the personnel record is more complete. Therefore, it is a source of satisfaction to be able to record, however briefly, the names and work of many of the men and women who have had so much to do with the company’s success.

The names of various individuals whose service has proved of great importance naturally can be grouped in the departments in which they worked.

The work in the production of Engraved Photogravure letterheads— the original foundation of the business — was led, of course, by Edward Woodbury, but he had the constant and invaluable support of George Millar as technician and Photogravure etcher. George also supervised the essential work of iron and chromium plating of the engravings. It is not surprising that in all those years that he spent with his head hovering over all those powerful chemicals that he lost his sense of smell, but not his good humor. Ward Robinson was first employed as an artist—and who for some months served as letterhead designer making the sketches which were necessary in selling—became our photogravure
Appendix
Personalities

retoucher and finisher. Both these men did their work carefully and with great expertise and helped importantly in getting our reputation for top quality clearly established. During the same very early period, as has been recounted elsewhere in this story, our Photogravure letterhead work was really established on the basis of the pictures that we had been making for many years, and which we continued to make in considerable volume. The leader here was Albert W. Nelson whose skill in this work was of the highest.

The letterheads could not be produced without the expert work on the Diestamp presses that was required to make the actual impressions. A series of leaders was developed here; but the man who should be recognized as having contributed the most to this part of the operation was Gunnar Benson…. who started in the pressroom as a rack boy, and who through the years worked up to pressman and then, for many years, as Foreman. He brought to this assignment a most unusual combination of mechanical skill in setting up and adjusting the presses, effectiveness as a teacher and guide for other pressmen, great sensitiveness to quality, and understanding and patience, in the work of personnel assignment and supervision.

We must not fail to mention the names of two women who served as press feeders on the borrowed Diestamp presses which gave us our first taste of power production of Engraved impressions. Nancy Hand and Carrie Weller. These two faithful individuals served for many years, and developed on their own, the patience and skill required to feed a diestamp press, nearly 2000 sheets an hour with a minimum of spoilage and difficulty. These two were the predecessors of a long list of skillful and patient feeders that have followed them.

An essential part of our work has been the making of speculative sketches. These have to be carefully drawn, with a flair for artistic arrangement of the picture and the lettering. We were fortunate right from the start in having first, Ward Robinson, and later for many years, Carl Lindstrom taking the lead in this area.

It was in 1935 that we embarked on a venture that was to prove of great importance to the company. For it was in that year that we decided to adopt Lithography as an ally, instead of continuing to compete with it. Robert Hammarstrom was assigned to both plate making and press operation, and he carried on to promote the department vigorously. He was soon joined in the operation of the larger presses by Leon LaPrade, who possessed an unusual degree of the skill required for producing excellent quality in high volume. On the platemaking, Richard Marley was the leader.

The Photogravure Letterheads emphasized the pictorial element, produced by the special form of the Photogravure process, but every letterhead has lettering and this had to be put into the engraving by hand engravers. In this work, Raymond Payne came to us and proved very good. Toward the end of the depression, he asked for transfer to the Sales Department. .. and this was arranged. His place was taken by Duncan Gillies who brought to the work a combination of great artistic skill and ability to accomplish the work quickly. After Duncan Gillies withdrew to develop his own business, his place was taken by Albert Payne, Ray’s brother. who served as leader here for many years, And he was followed for a number of years by Gerry Shusas.
An outsider looking at the Woodbury and Company operation would probably never imagine the importance to its success of the Sales Department. The requirements that our salesmen have to meet, if they are successful, are rather amazing. There must be the usual good appearance, and easy manner of speech; there must be a good knowledge of production methods, but in addition there must be a thorough acquaintance with the values and limitations of our processes, the significance of our price structure, the economic value of esthetic considerations, etc. Our first Sales Manager was Harold Wilson, who had served his apprenticeship as a photographer. Then George Murray was appointed after his successful work as a salesman in Philadelphia. It was during his leadership of the department that we grew in volume and financial strength to a very important degree. Then John C. Woodbury became Vice President-Marketing, with Elton Root as Assistant for field work. During these years we have had many splendid, cultivated and attractive men and women represent us. We could mention Edward S. Barber in New York, William E. Decker in New Jersey (a real “salesman’s salesman”); Ray Payne, taking charge of the Up-State New York area. And there have been many more, good men and women, and effective.

Every shop which uses machinery requires occasionally the services of people who can repair a broken part, or who can make intelligent adjustments when things go wrong. In the case of a job-printing shop, this kind of help can usually be quickly and effectively obtained either from local machine shops, or from the service departments of the manufacturers. But with us, there was a different problem. The Diestamp presses, and most of the other special machines that we use were sufficiently unusual so that the local machine shops were unfamiliar with the needs, and the manufacturers of the presses were far away (as in England) or otherwise unavailable. The result of all this was simply that we had to develop and maintain a department able to make the repairs and adjustments that had to be made from time to time. Here again, Edward Woodbury had to take the lead; there was no one else to do it. For many years, his right-hand-man was Harris Smith, a versatile, willing, and hard worker who came to know how to handle most all the mechanical problems that arose. Later, after Harris Smith went on to other work, Herman Sanborn became the head of the mechanical maintenance work. He proved most unusual in his ability to design improvements, and to make them, and to keep our machines working well, often when the servicemen sent in by the machinery makers were unable to meet the situation.

If a machine had a large brass weld, it was known to have been “Hermanized.” One undertaking carried through with complete success will illustrate. After Edward Woodbury had designed and with Herman’s help, built an automatic feed for the Waite Die Press, Herman made and put into successful operation five more of them without any difficulty.

After that had been accomplished, he designed and built a completely new approach, four machines that would feed envelopes into and out of the Waite Die Presses. These proved themselves to be very valuable.
A department of our operations that is quite unspectacular but obviously essential is the taking in of paper, storing it and cutting it when required to exact specifications. Rufus Hoyle was in charge here, with a minimum of difficulty. He was followed by Eric Olson as Foreman. The test of this department’s efficiency is whether or not there are complaints or delays. The total absence of such signs suggests that the work has been excellent.

Every organization must have an effective office set up. In this area we have been fortunate over many years.

In the “Sales Office” Mrs. Marguerite Stratton has been a tower of strength, supervising the entry of orders of varying degrees of complexity with accuracy and dependability. Then the order went to the Production Office, where the staff under the direction of Mrs. Anna Shepard took over. and saw that the various production departments received their appropriate instructions, and were closely followed up to make sure that the work was accomplished promptly and correctly. These two positions. led by these two intelligent and dedicated individuals have been very well handled.

One more individual in this review must be included. Miss Florence Tuttle. came to us just as she graduated from high school, and became receptionist and telephone operator. From there, over many years, she assumed a variety of office duties, of consistently increasing complexity and importance; Credit and Collections; Assistant Treasurer; personnel department records and reports; special events, like Service Awards, editor of Eagle’s Eye; all, it can be stated, competently handled. And, very important; during the war years with our organization badly crippled by military draft, and supply troubles, she was sort of “right hand man” for Edward Woodbury, in keeping things going.

The mention in the preceding paragraphs, of a few of the individuals who contributed importantly to the development and success of our enterprise is essential to the completeness of this story. But in the preparation of these notes, the author is acutely aware that there were many others whose names and services should be included.
The ROTOGRAPH process

Usually when making a picture by lithograph, a halftone negative is made by photographing the copy (the picture) through a halftone screen. This breaks up the picture into dots of varying sizes to make up the picture.

ROTOGRAPH involved the following steps

A full tone negative was made from the copy.
A transparency was made from the full tone negative.
This transparency was “retouched” i.e. etched with ferri-cyanide in areas that were to be lightened, and with a soft pencil, to darken, and sharpen where desired.
A halftone negative was then made from this retouched transparency, using the usual halftone screen.
A 3x enlargement was then made from this negative.
This “halftone enlargement” was then retouched with a fine ruling pen in black ink where sharpness was needed, and dots were painted off with opaque white paint where there was to be no tone. And perhaps black and white signs were added where appropriate.
This “halftone enlargement” was added to the “preliminary work”, or camera artwork which included the lettering on the letterhead. The main line of this “preliminary work” was always done by hand, and the secondary material set in type in the letterpress department.
Then the assembled “preliminary work” was photographed for the final negative used in making the lithographic plate.
All this extra work usually produced a result that was far superior to other lithographic pictorial work. But sometimes the halftone work was not quite right and the result could be a little odd looking and disappointing.
As time went by, and perhaps as picture letterheads declined in popularity, we learned to make direct halftones that produced an excellent result, and the whole Rotograph effort was abandoned.
WOODBURY PHOTOGRAVURE

The artwork to be reproduced is photographed in the usual manner, but the negative must meet exacting standards of density and contrast.

The first step is to prepare a transparency of the subject, again to exacting standards. A piece of pigmented carbon tissue is taken from the furnished roll, about 8x10 inches. This carbon tissue is made up of a layer of pigmented gelatin coated on a sheet of paper. The carbon tissue is submerged in a tray of bichromate. When the gelatin absorbs the bichromate, it becomes light sensitive. That is, when it is exposed to light, the gelatin become insoluble in water. When the bichromate is absorbed and the tissue become limp, it is removed from the bath and squeegeed onto a chromium plate to dry under critical temp and humidity conditions.

After it has dried, a small piece of the tissue, slightly larger than the picture to be reproduced, is placed in a printing frame in contact with the negative made earlier, and exposed to an arc light. After the exposure, it is removed and placed in a tray of warm water. When it is thoroughly wet, it is removed and placed and squeegeed onto a piece of glass. It is then replaced in the tray of warm water, the backing paper is lifted off, leaving the gelatin on the glass as a transparency. It is then removed from the water and dried. At this point it has rather flat contrast, so it is dyed in a bath of potassium permanganate, which increases its contrast as necessary for the next steps in the process.

The next step is to prepare the etching carbon tissue. This is non-pigmented, but is prepared in the same way in the bath of bichromate. When it is dry, it is placed in a printing frame in contact a photogravure screen. This is a special screen that has 300 lines to the inch both ways, with the space between the lines three times the width of the line.

The tissue is placed in contact with the screen in a printing frame, and exposed to an arc light. The light penetrates the screen through the clear glass squares between the lines, making the gelatin it exposes insoluble, small insoluble squares. Then the tissue is exposed in the printing frame to the transparency made earlier. Where the transparency is dark, say in the shadows, little light penetrates the gelatin, so it remains relatively soluble. Where the transparency is light, like in the sky, a lot of light penetrates the gelatin, and it becomes relatively insoluble.

The tissue is removed from the printing frame, and placed in a tray of warm water. When it becomes limp, it is transferred to the copper printing plate, and returned to the water bath. The paper backing soon loosens, and is removed, leaving the gelatin adhered to the plate. Between the little blocks of insoluble gelatin are lines of varying depth of gelatin which reflect the amount of light that came through the transparency. The tissue on the plate is carefully dried with anhydrous alcohol, and is ready to etch. As the plate begins to etch, the process must be accelerated, so water is added to the etching acid to complete the etch in the light areas, just as the dark areas reach the maximum depth.