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MECHANIZATION AND CRAFT STRUCTURE IN  
NINETEENTH CENTURY SILVERSMITHING: THE  
LAFORMES OF BOSTON.

UNIVERSITY OF DELAWARE (WINTERTHUR PROGRAM),  
M.A., 1981

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MECHANIZATION AND CRAFT STRUCTURE  
IN NINETEENTH CENTURY SILVERSMITHING:  
THE LAFORMES OF BOSTON

By

Janine Ellen Skerry

A thesis submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Master of Arts in Early American Culture.

August, 1981

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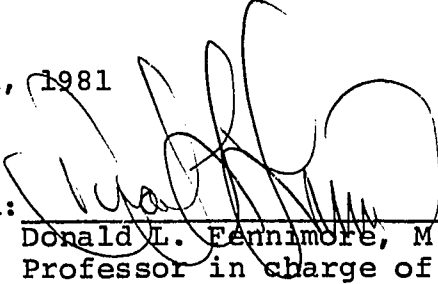
MECHANIZATION AND CRAFT STRUCTURE  
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Approved: 

Donald L. Fennimore, M.A.  
Professor in charge of thesis

## ABSTRACT

Factory-based mass production of silver goods had begun to achieve widespread dominance of the American marketplace in the 1860's and 1870's, and economic pressure from such competition effectively presented independent silversmiths with three primary alternatives for insuring financial solvency. A craftsman could follow the modernization trend and establish a small scale factory utilizing mass production techniques. Or secondly, an independent silversmith could forgo his self-employed status and enter into one of the many factories as a laborer. Finally, the autonomous silversmith could ignore the prevailing trends and remain an independent producer. Vincent Laforme of Boston chose the third option and worked as an independent silversmith until his death in 1893. His business operation serves as a case example of a traditional and conservative response to the changes brought about by mechanization.

It was not so much the widespread adoption of heavy machinery which altered the craft structure of the American silver making industry in the nineteenth century, as the combination of the use of machinery with the division of labor. The most profound changes caused by mechanization

were wrought both on the workers, who became isolated specialists, and on the designs for the objects, which became creative recombinations of stock components.

The Laforme silversmiths were an important link between the traditional working methods of the eighteenth century and the innovations of the nineteenth century. A comparison of the two hundred extant shop drawings from the Laformes with the silver designs from larger factories reveals many of the subtle distinctions which arose in the trade when the production of silver was broken down into a series of discrete operations.

## NOMENCLATURE

An expanded modified system of quotation has been used throughout the text in order to clarify citations from nineteenth century documents. Proper names which have various spellings and capitalizations in period documents have been similarly standardized throughout the text.

## INTRODUCTION

[He] is a thorough workman and gets good prices, but is a slack manager and it is said keeps no books.<sup>1</sup>

In these words, the R.G. Dun & Co. described the Boston silversmith Vincent Laforme in its credit ledgers for 1885. The entry underscores the emphasis placed on being both a good craftsman and a good businessman during the last half of the nineteenth century. Factory-based mass production of silver goods had begun to achieve widespread dominance of the American marketplace in the 1860's and 1870's, and economic pressure from such competition effectively presented independent silversmiths with three primary alternatives for insuring financial solvency. A craftsman who had managerial talent and access to sufficient capital could follow the modernization trend and establish a small scale factory utilizing mass production techniques, making it possible to compete with the larger producers on their own economic terms. The number of small concerns operating in Connecticut and western Massachusetts during the last decades of the nineteenth century indicate the popularity of this option. However, such a course of action virtually required that the

independent silversmith no longer work as an artisan, but rather as a full time manager and businessman. This was seen as a socially upward move from the status of manual laborer.

Secondly, an independent smith could forgo his self-employed status and enter into one of the many factories as a day worker. The sacrifice demanded by such a course of action extended beyond merely relinquishing independence, however. He was also required to give up his status as an artisan and join the ranks of workers whose daily tasks required few decisions. Economics dictated rapid, low cost manufacturing techniques which were greatly facilitated by the division of production into discrete processes. Tasks such as raising, stamping, spinning, and chasing were all separated so that a given workman performed only one type of operation on a vessel before it moved on to the next phase of production. Thus, an individual who chose to work in a factory setting was usually required to specialize in just one of the many steps involved in silversmithing.

Finally, the autonomous silversmith could choose to ignore the prevailing trends and remain an independent producer. As with the option of establishing a small factory, this course of action required both a source of

capital (or continued patronage) and a fair degree of business acumen in order to swim against the industrializing tide of the time.<sup>2</sup> Although it was potentially restrictive, some specialization in either a type of product (e.g. flatware, church goods) or in a specific process (such as gilding or engraving) also helped to insure a successful enterprise for the independent craftsman. During the first half of the nineteenth century, such security was provided by the practice of producing both shop work and bespoke work. Shop work consisted of wares which were made, often in considerable quantities, for sale by other retailers rather than by the silversmith himself. Before Tiffany & Co. established their own manufactory in 1868, for example, they regularly purchased goods for resale from smaller, independent shops such as Wood & Hughes and William Gale, both of New York. Shop work usually was struck with both a touchmark for the silversmith and the name of the retailer (see Appendix).<sup>3</sup> By contrast, bespoke or custom work was executed on a commission basis for private clients, usually to their specifications. By the end of the century, when retailers often purchased all of their wares from a single affiliated factory, independent shops had to rely for business on a combination of bespoke work and specialization.

Vincent Laforme of Boston chose the third option and remained an independent silversmith until his death in 1893. His business operation therefore serves as a case example of a traditional and conservative response to the changes brought about by mass production. It would be an exaggeration to imply that Vincent Laforme was a major figure in nineteenth century silversmithing. Surviving objects and information about business associations indicate that he was simply a competent, skilled artisan. He left no account books or ledgers, and his history can only be roughly pieced together from business directories, credit ledgers, and census materials. However, two hundred extant drawings from the Laforme shop provide a rich and diverse corpus of material which documents the working methods and craft structure within a small shop in mid and late nineteenth century America. When compared to drawings from larger factories, they also reveal many of the subtle distinctions which arose in the trade when production was broken down into a series of discrete operations.

## Chapter I

### THE LAFORMES OF BOSTON

In his treatise on emigrants to the Boston area, Oscar Handlin notes that a mass exodus of skilled craftsmen from Germany occurred from the 1830's to 1860's due to the heavy influx of machine-made English objects. The low production costs of the British goods and resultant low selling prices effectively placed the German master craftsmen's wares out of their home market. Unable to earn a livelihood practicing their trade in their homeland, artisans were forced to emigrate or to seek another vocation.<sup>4</sup> Although specific reasons are not known, it may have been this depressed home-market situation which spurred the Laforme family to depart Germany in 1832.<sup>5</sup>

While records of the Laforme's port of entry do not survive, city directories report that Anthony and Clara Laforme and their children were living at number 11 Graphic Court in the city of Boston in 1835. There are indications, however, that the Laformes were in Boston by 1833, and that Anthony had established a silversmithing shop there in that year. In the 1835 directory, a Bernard Laforme is listed

as a silversmith in partnership with Anthony, residing at the same address.<sup>6</sup> The relationship between the two men is uncertain; most likely Bernard was a brother or elder son of Anthony's. He disappeared from the Boston records after 1836; in that year, both Anthony and Bernard relocated to separate households, and were listed as working independently of each other.<sup>7</sup>

Anthony Laforme remained active until his death at the age of forty-six in March, 1846.<sup>8</sup> During the thirteen years in which he was listed in the Boston directories, he relocated his shop four times, and his home address changed eight times.<sup>9</sup> Little else is known about Anthony; no silver made by him is known to survive, nor are any touchmarks documented for him, or for Bernard. The paucity of records for the family during this period allows for only modest speculation; however, it seems likely that while residing in Boston Anthony trained his son Vennest (later anglicized to Vincent) in the craft of silversmithing.

In 1844, at the age of twenty-one, Vincent Laforme commenced working independently with a separate shop at number five Water Street. During this year, Vincent continued to live with his parents; presumably he had embarked on his separate business career with his father's blessing.

Upon his marriage in 1845 to Sarah Field of Boston, he established a separate residence.<sup>10</sup>

Little is known about the first six years of Vincent's silversmithing career. In 1850, however, Vincent's younger brother, twenty-three year old Francis J., began working in the same shop as a master craftsman and the firm became known as Vincent Laforme & Brother.<sup>11</sup> Francis had probably begun his apprenticeship with his father, and completed his training with his elder brother. It is from 1850 on that supplementary records survive which help to reconstruct the workings of the shop.

The Census of Manufacturers for 1850 includes an entry for the firm of Vincent Laforme & Brother which contains both financial and biographical information. The business used hand powered machinery and employed an average of five males during the year. Financially, they appear to have made a small profit. Real and personal capital invested in the firm amounted to \$3,500; raw materials consisted of 2,400 ounces of silver valued at \$2,738 and miscellaneous goods amount to \$200; average monthly wages for their employees were \$180. Their total output of silverware for 1850 was valued at \$5,500.<sup>12</sup>

During the time of their partnership, Vincent and Francis used a touchmark which consisted of the letters

V.L. & B., for Vincent Laforme & Brother. They sold their wares both at retail through their own shop and wholesale to the Boston firm of Lincoln & Foss. Apparently, the Laforme's output consisted of both shop and bespoke work. In addition, they offered a variety of services. From 1851 until 1853 the firm was listed in the business section of the city directories under both gilders and silversmiths.<sup>13</sup>

For unknown reasons the firm was dissolved early in 1854. Vincent relocated his shop, while Francis continued to work on Water Street under the name of F.J. Laforme & Co. Francis' first independent endeavor seems to have prospered nicely, for in 1856 a glowing account of the company was published in a vanity book appropriately titled Leading Pursuits and Leading Men. In this treatise Edwin Freedley stated that F.J. Laforme & Co. employed about twenty to thirty people, and possessed "all the requisite machinery, with steam power, for carrying on the business successfully."<sup>14</sup> Freedley also noted that the firm was distinguished for its original designs for domestic wares, and that "their reputation is now not confined to New England alone."<sup>15</sup> Despite its apparent success, F.J. Laforme & Co. went out of business in 1857, only one year after this chronicle was published.<sup>16</sup>

The surviving two hundred shop drawings by the Laformes undoubtedly incorporate some from the period when Vincent and Francis were working together, and some from F.J. Laforme & Co. Among the former are sketches, presentation drawings, and templates for hollowares in a rusticated design which stylistically date to the 1840's and 1850's.<sup>17</sup> The latter includes several small patterns for what appear to be cruet bottles or scent bottles. They are cut from the back of a blank account book page headed "Francis J. LaForme & Co." over columns marked "Weight: oz. [and] dwt., Value of Silver, Making, Chasing, Engraving, Total Cost."<sup>18</sup> Such evidence indicates that a portion of the body of shop drawings dates from the years between 1850 and 1857. Whatever designs Francis retained at the time of his firm's liquidation were presumably acquired by his brother.

In 1858 and 1859, Francis was engaged in the merchandising not of silver, but of snake oil. In "A Treatise on the Nature, Causes, Symptoms, and Prevention of Pulmonary Consumption," the virtues of Fousel's Eabulum Vitae were extolled, with the assurance that F.J. Laforme was the sole agent in Boston of this elixir.<sup>19</sup> While this seems a peculiar change of occupations, the reason for such a switch can, perhaps, be found in the

silversmithing techniques employed by the Laformes while in partnership. In 1851, Vincent Laforme & Brother specified in their directory listing under gilding and silvering that they did mercury gilding.<sup>20</sup> This technique involved covering the surface of the object to be gilded with an amalgam of mercury and gold. Thus coated, the object was heated until the mercury volatilized, causing the gold to fuse chemically to the object. While such gilding was comparatively permanent, the mercury vapors exuded during its production were extremely hazardous to the workman's health; for this reason, the technique had long been outlawed in England. Exposure to such fumes over several years may have so sickened Francis as to have caused his interest in a possible cure. This supposition is further supported by the fact that he died (albeit many years later) of a disease of the liver, the organ in which mercury deposits within the body are cumulatively retained.<sup>21</sup>

In 1860 and 1861 Francis was absent from the directories, while in 1862 and 1863 he was once more listed as a silversmith, although no business address was given for him. No reference of Francis is to be found again until 1882, when he was boarding with his younger brother, Anthony Bernard. His death certificate, filed in 1895, stated that he had no occupation. He was 68 years old at the time of his death.<sup>22</sup>

Vincent Laforme had a longer and more stable career than his brother, working at various addresses on Water Street from the 1850's until his death in 1893.<sup>23</sup> Commencing in December 1857, he became the subject of frequent entries in the R.G. Dun & Co. credit ledgers. The predecessors of Dun & Bradstreet, R.G. Dun & Co. began to issue reports on the credit worthiness of individuals and firms in the business world in the mid-nineteenth century. Although a report was meant to provide basic data on a given company's financial standing, entries often included biographical and personal information about the firm under investigation.

The records for Vincent Laforme contained a substantial amount of such supplementary material. For example, the entry for February 1860 stated that in 1854, the year in which Vincent and Francis ceased working in partnership, Vincent reorganized his business with four or five thousand dollars. He subsequently gave up the endeavor and went west to farm.<sup>24</sup> This was no doubt in 1856, the only year between 1844 and 1893 in which Vincent was not listed in the Boston city directories.<sup>25</sup> According to the R.G. Dun & Co. records, Vincent "lost his means and was glad to get back to Boston,"<sup>26</sup> where he re-established his silversmithing shop on a loan of \$800 or

\$1,000 from his younger brother, Joseph A. Laforme. Joseph was at that time associated with the mercantile firm of N. Reggio & Co.; in 1871 he established his own mercantile house, Laforme & Frothingham. A very successful businessman, Joseph came to the aid of his brother frequently. For instance, in the late 1850's the firm for which Vincent did shop work, Lincoln & Foss, went bankrupt; Vincent lost half of his capital investment, but was able to maintain his shop with the help of a loan from Joseph.<sup>27</sup>

The R.G. Dun & Co. entry for October 1870 was both cautious and optimistic. "[He] is a first class workman and is steady: ought to make money."<sup>28</sup> Census of manufacturers information for 1870 confirms that Vincent's shop earned a slight profit that year. Capital invested was \$1,000, and the total amount paid in wages over a twelve month period was \$1,500. Inventory materials consumed during 1870 consisted of 200 ounces of silver valued at \$300, and an unspecified quantity of gold worth \$1,500. Total production for the year was valued at \$3,600.<sup>29</sup>

The credit memorandum for September 1871 estimated that the Laforme silversmithing shop was worth three to five thousand dollars; either Vincent had increased his business substantially, or he persuaded the R.G. Dun & Co.

agent that he had! Apparently, the report was correct, for by April 1874 his "small and snug" business manufacturing and repairing silverwares was valued at over ten thousand dollars.<sup>30</sup>

Favorable credit ratings continued throughout the 1870's, with the exception of an entry for October 1878. Apparently through a dispute with the landlord from whom he rented shop space, Vincent found it necessary to take a loan of \$500 from his son, Frederick P. Laforme. Despite his protests that he didn't owe more than two hundred dollars, Vincent used his household furnishings and other personal property as collateral. Excluding this entry, comments on Vincent's business remained positive, and by March 1881 his shop was assessed at a peak value of twelve to fifteen thousand dollars.<sup>31</sup>

The last thirteen years of Vincent Laforme's business career reflected the increasing difficulty of competing on an economic basis with larger factories. Throughout his career up to the 1880's, Vincent relied on a combination of work--manufacturing, repairing, and gilding--to maintain his financial standing. He was frequently listed in the city directories under both silversmiths and gilders or gold platers. During the 1870's however, he had become increasingly dependent upon

his gilding work as a source of income. On two occasions, in 1876 and again in 1877, Vincent placed a display advertisement in the city directory. The text for both notices read:

(Established 1833.)/Vincent Laforme,  
Silver Worker,/Fire Gilder,/and Electric  
Gold Plater,/No.23 Water St.,/Boston.<sup>32</sup>

By the last two decades of the century, competition from factories using mass production techniques had so undercut the business of small shops, that silversmiths were forced to specialize in areas which could continue to provide patronage from either individuals or the smaller factories themselves. Vincent's skill in gilding provided an obvious solution. While this temporarily mitigated the effects of factory competition, the eventual dominance of mass production in the trade was inevitable.

Two consecutive entries in the R.G. Dun & Co. ledgers make note both of Vincent's speciality in gilding, and the economic difficulties he was experiencing. They also indicate a reluctance on Vincent's part to face the inescapable changes which were occurring in the trade. At the age of sixty, he may have been too firmly entrenched in his ways to consider seriously the future difficulties of maintaining an independent shop in the shadow of factory dominance.

March 4/83 [He] is reported [to be] the best gilder in Boston and has a good business, but parties having frequent dealings with him say that they don't care to have him owe them much, on account of difficulty in bringing him to a settlement.

June 8/83 [He] has been quite slow paying for some time but recent inquiries indicate that he has been over rated: that his real estate (taxes for 10 thousand) stands in his wife's name, [and] that he has no money of consequence open to attachment. [He] formerly employed 30 to 40 men manufacturing silverware but now has only 3 or 4 hands and does only gilding for the [silver-smithing] trade. [He] gets good prices for his work and ought to be able to pay promptly but lives well, takes things easy and is held to spend about all he makes.<sup>33</sup>

Subsequent entries in the R.G. Dun & Co. ledgers indicate that by 1885 Vincent was working without any assistants. Although he was well regarded as an individual and as a workman, his financial situation remained unstable throughout the remainder of his career.<sup>34</sup>

After 1887, Vincent Laforme's name did not appear at all under the listing for silversmiths in the city directories; rather, he was included only in the entries for gold and silver platers. In the personal sections of the directories, however, he always listed his occupation as silversmith. Clearly, Vincent thought of himself as a

silversmith, even if the bulk of his business was in gilding wares made by others.<sup>35</sup>

His shop drawings indicate that Vincent was at least designing and perhaps manufacturing a small number of silver objects during the 1880's. A sketch for a chafing dish stand is on paper watermarked 1881, and a sketch for a sugar bowl and creamer is marked with the date 1881. One object in the colonial revival style is also among the drawings.<sup>36</sup> Although they are difficult to date, a large number of designs for church vessels also survive. As a Roman Catholic, Vincent would have been familiar with the uses and customary shapes of chalices, patens, and monstrances, and thus would have been a logical choice to do commission work for local parishes, such as the Gate of Heaven.<sup>37</sup> He undoubtedly also received employment in regilding church vessels, as well as in gilding for the trade.

Even with a well defined speciality, it became increasingly difficult for a manufacturer located in the urban environment of Boston to compete with rural factories for a share of the market. High rents for shop space, a paucity of available land for expansion, and the lack of a cheap power source, such as water power, all combined to prevent new enterprise from developing and to force old

businesses to relocate or close. In 1850-1851, fifteen silversmiths had been working within the city of Boston; by 1891 only four shops were in operation, including Vincent Laforme's, and his was involved almost exclusively in gilding work.<sup>38</sup> The rural factory had become the dominant producer of silver wares in the northeast section of the United States.

Vincent Laforme died intestate in July, 1893 at the age of seventy. The cause of death was listed as general paralysis and senility. His son, Elmer B. Laforme, assumed the managerial responsibilities for the firm, while at the same time maintaining his job as a clerk for another business concern. Under the name V. Laforme Co., the shop continued to do gilding until 1909, when it was finally bought out by Hallet & Smith, who also specialized in gold and silver plating and fancy coloring or enameling on silver.<sup>39</sup> None of Vincent's children entered into metal working trades; with his demise, the line of Laforme silversmiths ended.

Vincent had outlived his wife by eight months. Sarah Laformed died in November, 1892 at the age of 66. Her will and the subsequent probate documents filed in Suffolk Court confirm the fact that all of the real estate and financial obligations for the Laforme family were in

Sarah's name. When her estate was finally settled in June of 1895, there was a debt of \$7,400. Included in this amount were interest charges and final payments for mortgages on three lots of land; one of these lots was carrying two mortgages. Other debts included unpaid bills and taxes. Personal property including household furniture was valued at a total of \$2,200. Among the personal items specifically listed was a piano valued at \$100 and silverware valued at \$400.<sup>40</sup>

## Chapter II

### MECHANIZATION AND CRAFT STRUCTURE

The distinction between a tool and a machine is one of degree. A tool is an implement used by hand to perform a specific function, while a machine is a device which operates with greater power, or at faster speeds, than the human hand to perform a specific function. A machine, then, is simply a more efficient tool. It must be remembered, however, that the degree of efficiency is relative to the goals of the producer and the kinds of product desired. Similarly, mechanization in silversmithing is a matter of degree. Mechanization did not revolutionize the industry with a sudden, pervasive blast. One generation's machine was often the next generation's tool.

Briefly stated, the two primary characteristics of mechanization in America during the nineteenth century were the division of labor and the use of an efficient power source. There was only one primary motive, however, for the adoption of mechanization: economic feasibility. Mechanization became prevalent in silver production in northeastern America at a comparatively late date, only

achieving widespread dominance in the 1870's and 1880's. Prior to the Civil War, the price of raw silver remained prohibitively high and comparatively few segments of American society could afford solid silver goods. In the 1860's, the discovery of major veins in the silver mines in Nevada and California coincided with a decline in demand for silver for use as specie in Europe. The result was a glut in the silver market. Over the last four decades of the nineteenth century the price of unworked silver steadily declined until it was less than half its previous value. Thus, during the 1870's and 1880's, silver as a raw material became affordable for the first time by a mass market in America, while a middle-class with a desire for status-bearing objects was increasing at the same time. It was economically desirable in this new climate to apply mass production techniques to the silver industry in this country.<sup>41</sup>

Mechanized mass production techniques had long been in use in the related industries of britannia-making and silver plating. As early as 1824, for example, water-powered lathes and steel rollers were being used in britannia production in Massachusetts. Only when an economic basis existed was mechanization applied to the silver-making trade. In England this basis had been firmly

established for the production of small goods such as buttons and buckles during the eighteenth century, as can be seen from the success of Matthew Bolton's water powered manufactory, erected in Soho between 1759 and 1766. The adoption of mechanization techniques in America was not so much a manifestation of nineteenth century values as an indication of a firm economic footing for the mass marketing of solid silver wares.<sup>42</sup>

It is difficult to determine what types of tools and machines were used in silversmithing during the eighteenth and nineteenth centuries. This is in part due to the fact that tools and machines were often first developed to expedite the mass production of lower and middle class goods, such as britannia and plated metal. Later, as mass production of solid silver goods became feasible, these machines were applied to that use as well. But because these machines were no longer considered new or innovative, little was written of their new found employment.

The problem is further complicated by the often subtle distinctions between sophisticated tools and simple machines. For instance, a hand-cranked flatting mill could be considered a tool because it is manually operated, but it could also be called a machine because the action

of its gears creates far greater pressure than a human hand could. The question is not entirely moot, for just such a flattening mill was touted in The London Tradesman, published in 1747.<sup>43</sup>

Abraham Rees' Cyclopaedia, published in London and Philadelphia between 1810 and 1824, contained explanations and illustrations of several devices used in the mass production of silver plated goods. Included among descriptions and plates were a flattening mill, a stamping hammer or die stamp, embossing punches, a lathe, swages, and a grooved roller for making decorative beaded edges. Although the power source was not specified, the plates illustrated manually operated pulleys using gravity as the primary motive force.<sup>44</sup>

Such machines were not in widespread use in the solid silver trade until the 1870's. The most significant difference between the devices illustrated in Rees' Cyclopaedia and those in use in Tiffany & Co's factory in 1877 was that Tiffany's machines were driven by steam or water power. Some new appliances were being utilized in the 1870's as well, such as an apparatus for putting a satin finish on an object, or a machine for ornamenting a vessel with engine turning. In general, however, mechanization in the silver trade consisted primarily of applying

more efficient power sources to tools and to simple machines which had in some instances been used since the second half of the eighteenth century.<sup>45</sup>

The second primary characteristic of mechanization--the division of labor--was prevalent in metalsmithing in parts of England long before it attained dominance in America. The section on goldsmithing from The London Tradesman of 1747 lists ten different areas of specialization in which a boy might be apprenticed, such as gilding, burnishing, and chasing. This division of the trade into distinct operations was considered a great advantage:

The goldsmith employs several distinct workmen, almost as many as there are different articles in his shop; for in this great city there are hands that excel in every branch, and are constantly employed but in that one of which they are masters. This gives us an advantage over many foreign nations in this article, as they are obliged to employ the same hands in every branch of the trade, and it is impossible to expect that a man employed in such an infinite variety can finish his work to any perfection, at least, not so much as he who is constantly employed in the one thing.<sup>46</sup>

Not until the last half of the nineteenth century were American silversmiths able to enjoy the privilege of working in only one branch of their art and thus perfecting their skills. When division of labor did occur in America in the 1860's and 1870's, it had a far more profound

effect on the craft structure of the silver making trade than did the concurrent widespread adoption of machinery in the industry.

Throughout the eighteenth century and the first half of the nineteenth century the apprenticeship system was still in effect in the silversmithing trade. Although the conditions governing a silversmithing apprenticeship during this century and a half were not always uniform, the training period had one fundamental tenent. The master craftsman was expected to instruct the apprentice in all of the various tasks involved in silversmithing. Although the structure of a given shop might dictate that a boy spend most of his time performing a few specific tasks, he was nonetheless exposed to all of the facets of the craft.

The widespread adoption of mass production techniques in the last third of the nineteenth century fundamentally altered the nature of apprenticeships. To be sure, apprentices were still taken into the factories, but they apprenticed to a specific department where they trained intensively in just one aspect of silversmithing, such as spinning or soldering.<sup>47</sup> In order to fully utilize the capabilities, and thus the economic advantages, of mass production, the task of making a silver object was broken down into its component parts, such as spinning, casting,

engraving, and so on. In a factory setting production was physically segregated according to the type of operation performed. Thus, all of the chasers, for example, worked together, and were not in frequent contact with other departments.<sup>48</sup> An object moved from place to place and from individual to individual, beginning in the smelting room, through all the steps required for its completion, finally ending in the wrapping and packaging department. While this created a very efficient flow of materials, the result was that a given individual had little or no practical knowledge of how to fashion a silver vessel, but rather only a very particular understanding of the one operation which he or she performed repeatedly throughout the course of a day. By the end of the nineteenth century, young men took apprenticeships in factories not to become silversmiths, but to become specialists in one aspect of silver production.

### Chapter III

#### ARTISTIC DESIGNS AND SHOP DRAWINGS

The key department which evolved from the division of labor was the designing room. During the first half of the nineteenth century, silversmiths flagrantly copied each others' designs, to such a degree that it is often difficult to determine which firm created the initial composition. Figures 1 and 2 are Laforme sketches for teaware which are very similar to the service shown in Figure 3, also from the Laforme shop. The kettle on stand in Figure 4 was made by Tiffany, Young & Ellis of New York, however, and the teapot in Figure 5 is stamped with the maker's mark of Woodward & Grosjean of Boston. Although all of the objects are of similar form and have some virtually identical features (such as the spouts and handles), they were made, and presumably designed, by different shops. To complicate the issue even further, the tea service made by Woodward & Grosjean was retailed by Lincoln & Foss, the Boston firm which handled most of Laforme's goods!<sup>49</sup>

By the last third of the century, however, manufacturers attempted to offer truly original designs in order to gain a competitive edge in the marketplace. Up

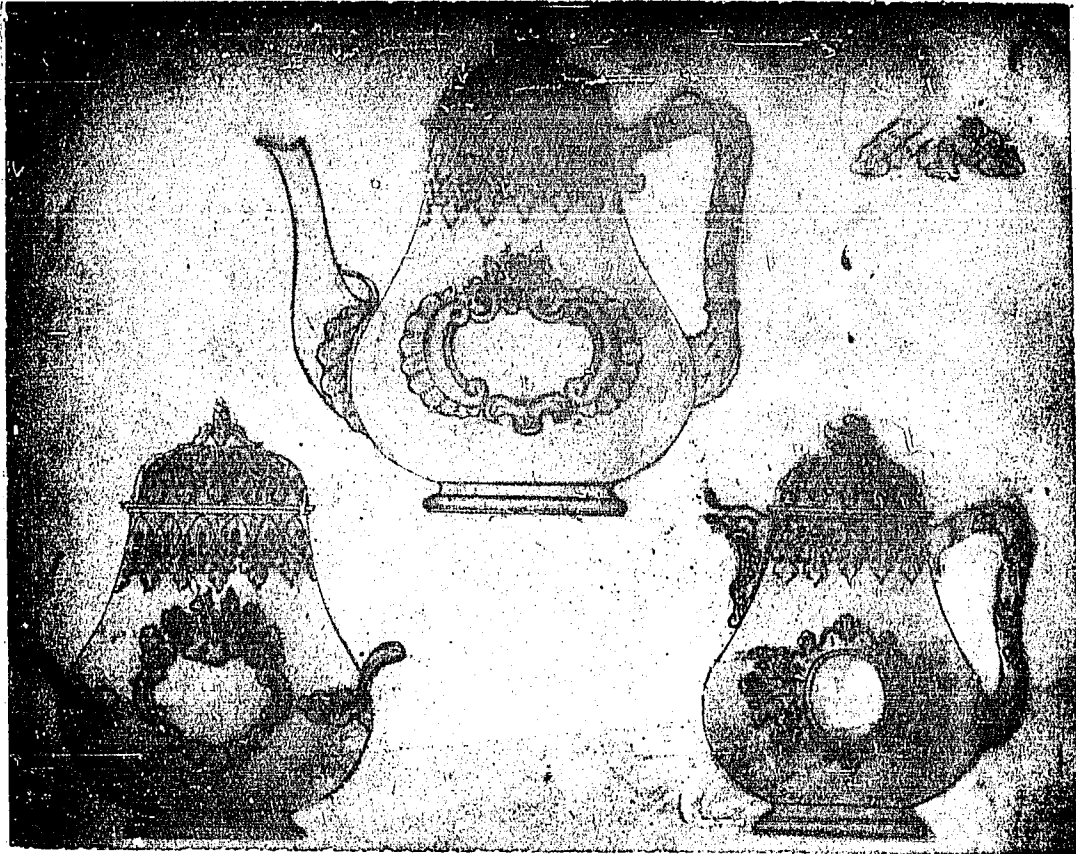


Figure 1

Presentation drawing for a three-piece tea service in a rusticated pattern. Laforme Shop Drawings, the Joseph Downs Manuscript and Microfilm Library of the Henry Francis du Pont Winterthur Museum (hereafter DMMC) 71 x 246.76a.

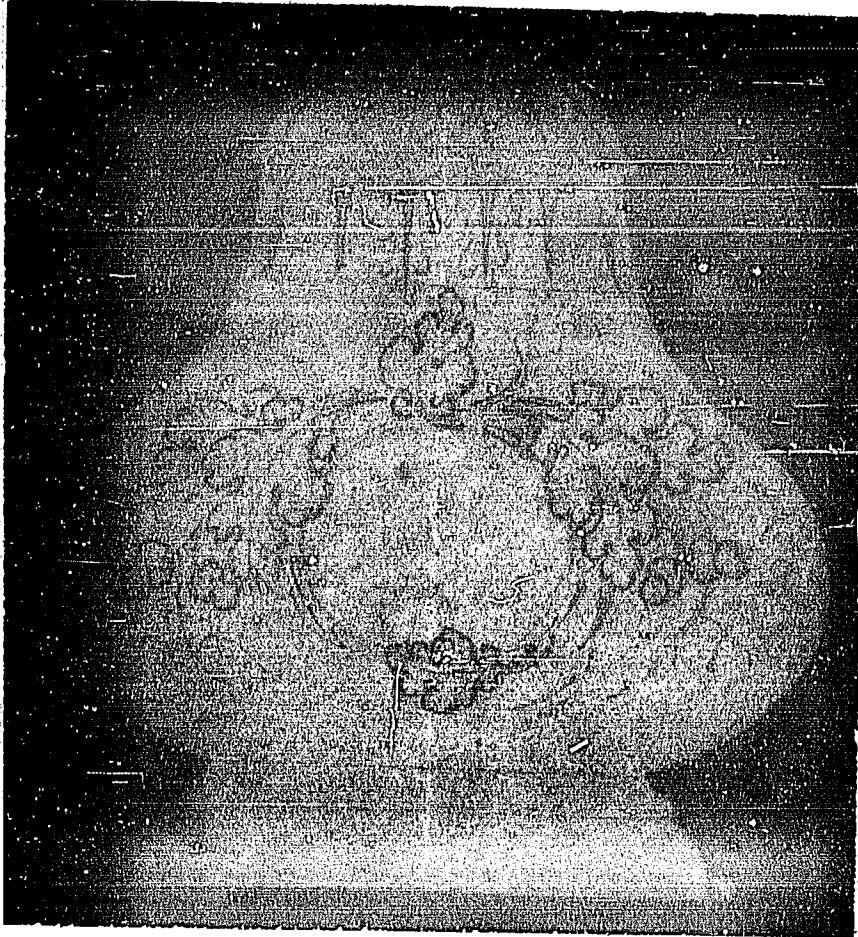


Figure 2

Template with ornamental designs for chasing in a rusticated pattern. Laforme Shop Drawings, DMMC 71 x 246.45.

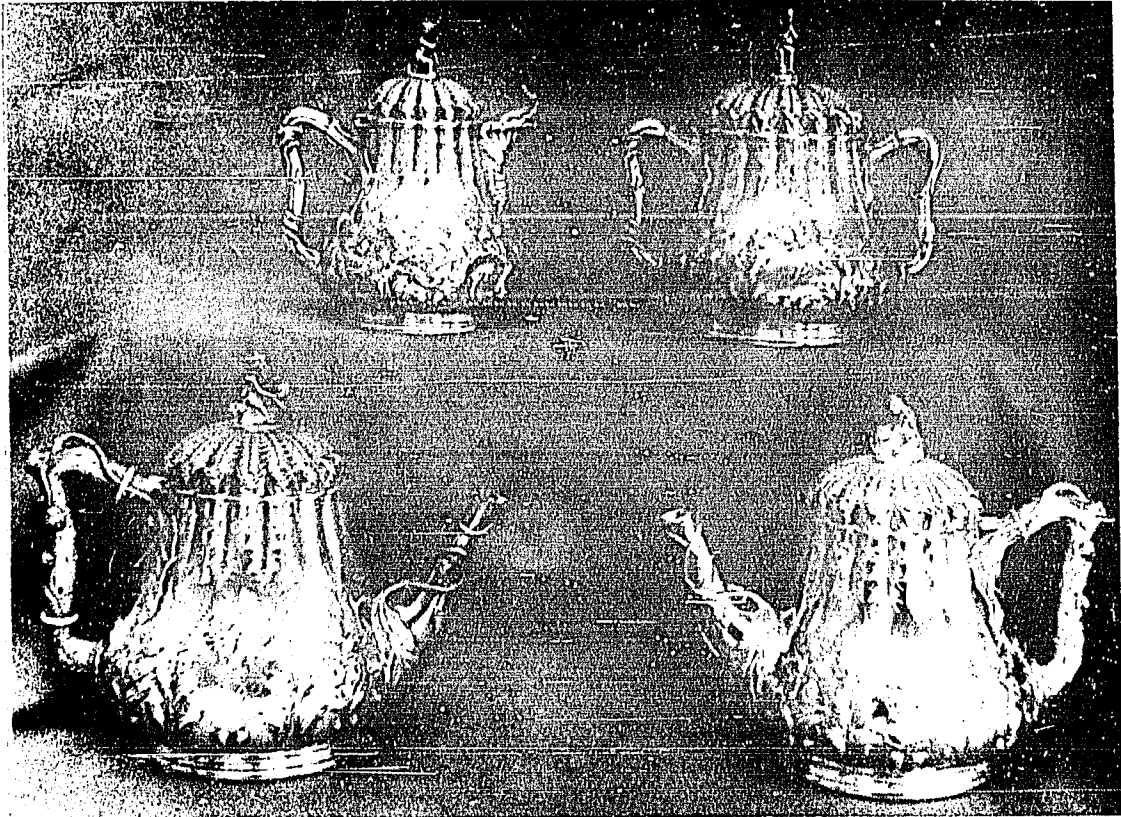


Figure 3

Laforme four-piece tea and coffee service, circa 1850.  
Mark unrecorded. (Courtesy of Gebelein Silversmiths.)



Figure 4

Teapot on stand, circa 1850. Marked: Tiffany, Young & Ellis. H. 12 3/8". (Private Collection.)

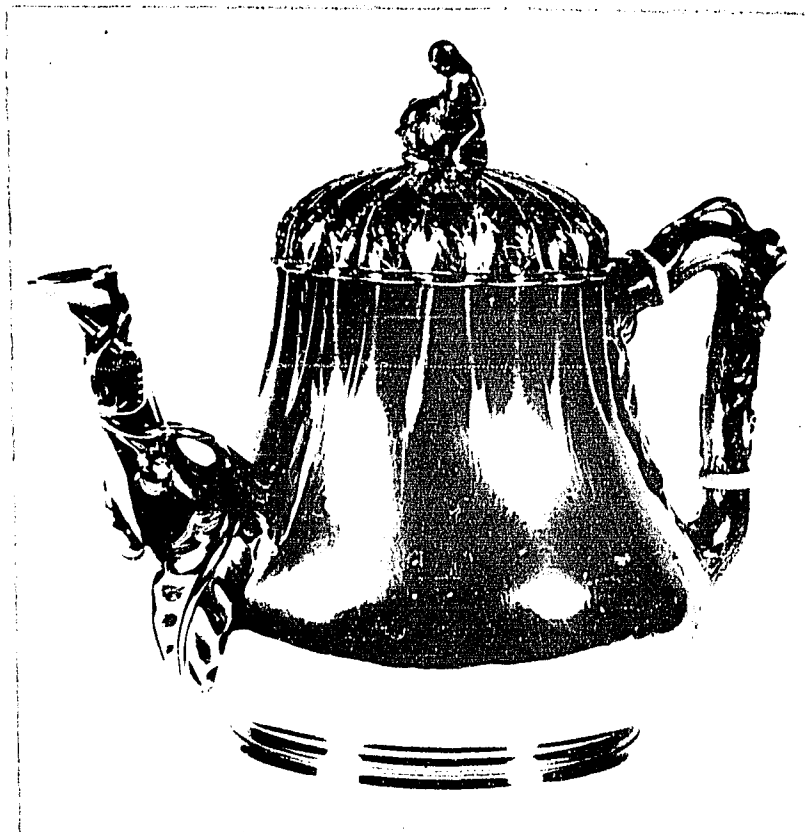


Figure 5

Teapot, circa 1850. Marked "W&G" for Woodward & Grosjean of Boston. Retailed by Lincoln & Foss of Boston. H. 8".  
(Courtesy of The Munson-Williams-Proctor Institute.)

until the 1860's, there were few industrial artists in America; after that time, however, programs such as the Art School of the Cooper Union and the University of Cincinnati School of Design began graduating young men trained in the artistic design of functional goods. Large factories also established design training programs which accepted young apprentices. Competitions with monetary prizes were sometimes held in these factory training programs in order to encourage the apprentices.<sup>50</sup>

Although such art programs trained men in design, there is little evidence to indicate that their graduates knew the capabilities of the machines for which they were designing. In order to transform an artistic drawing into a functional set of instructions, the designed object had to be broken down into its constituent parts, for example spun, cast, and milled pieces. In such a process, someone who was familiar with the operation and capabilities of the machines had to act as a translator for the designer. Although the head of the design department occasionally served this purpose, the shop foremen were the most likely candidates. The foremen were usually the most skilled workers in their department, and they wielded a tremendous amount of power in some firms, even passing judgement upon new design proposals.<sup>51</sup>

Mechanization brought about the need for a new language of communication between those who created the designs and those who were responsible for producing them. The designer/foreman could not assume that a workman in the factory would be able to read and interpret the type of scale drawing which would have been perfectly intelligible to a silversmith who had undergone a traditional, fully rounded apprenticeship. The shop drawings used by Tiffany & Co. well illustrate the type of sophisticated, impersonal, and non-verbal communication which mass production techniques demanded (Figure 6). The entire assemblage consists of numbered components which were made according to specific standards of weights and dimensions. While the drawing assumes little knowledge on the part of the worker, it also grants him very little room for artistic expression of any sort. Thus the drawing is a restrictive means of controlling production in order to insure a uniform product.<sup>52</sup>

Just as the division of labor segregated silversmithing into a series of discrete tasks, so also the language of large factory shop drawings segregated design into a combination of stock elements. As George Gibb noted in his treatise on the Reed & Barton firm, "interchangeable parts were found to be an economy not only in machinery

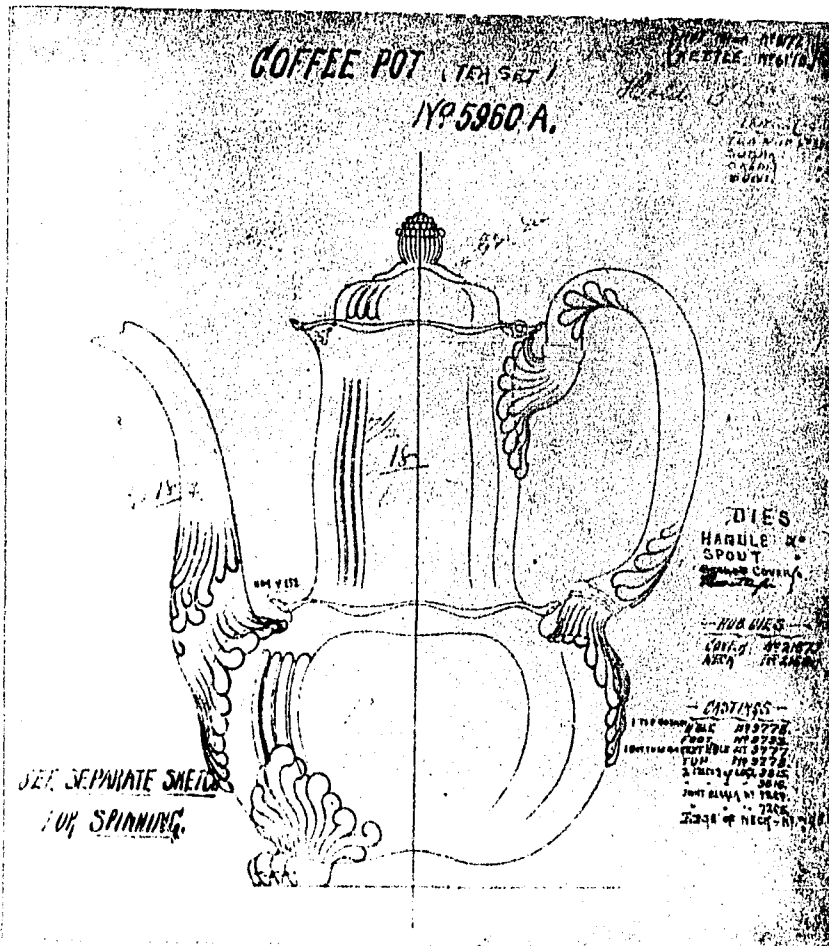


Figure 6

Tiffany & Co. shop drawing for teapot no. 5960A. The component pieces of this object, such as castings, all have part numbers. Separate sketches were used for spun sections of the vessel. The decorative effect could be varied by using different cast elements or chased ornament on the same body.

but in ornament."<sup>53</sup> Many of the Tiffany & Co. designs espouse this philosophy; customers could choose from a large number of decorative elements to be applied to a standard body form.<sup>54</sup> This method of designing by the recombination of stock parts undoubtedly contributed to the highly eclectic appearance of much nineteenth century silver.

By comparison to the Tiffany designs, the Laforme drawings are traditional, intuitive, and highly verbal (Figures 7-10). They assume at least a rudimentary knowledge of all of the major areas of silversmithing, and they allow room for artistic decisions by the craftsman fashioning the vessel. While there is ample reason to believe that much of the Laforme silver was made jointly by several workmen in the shop, the designs allowed for cooperative decisions concerning how the finished product would look. In their manner of execution, they bear a strong resemblance to the drawings by Thomas Fletcher and Sidney Gardiner from 1811 to the 1830's.<sup>55</sup>

The Laforme shop drawings serve a dual purpose, for they reveal how both the designer and the craftsman worked in a small shop. There are several distinct types of drawings included within this corpus of material. The first of these are rough sketches which reveal the thought



Figure 7

Template with instructions from designer to craftsmen. Notations read "You will raise the body a [? illegible] round the fluting & embossing. I will show by a rough model, which will facilitate you much as I cannot make it plane [sic] to you so well. This outline is the size of [the] drawing." Laforme Shop Drawings, DMMC 71 x 246.123.

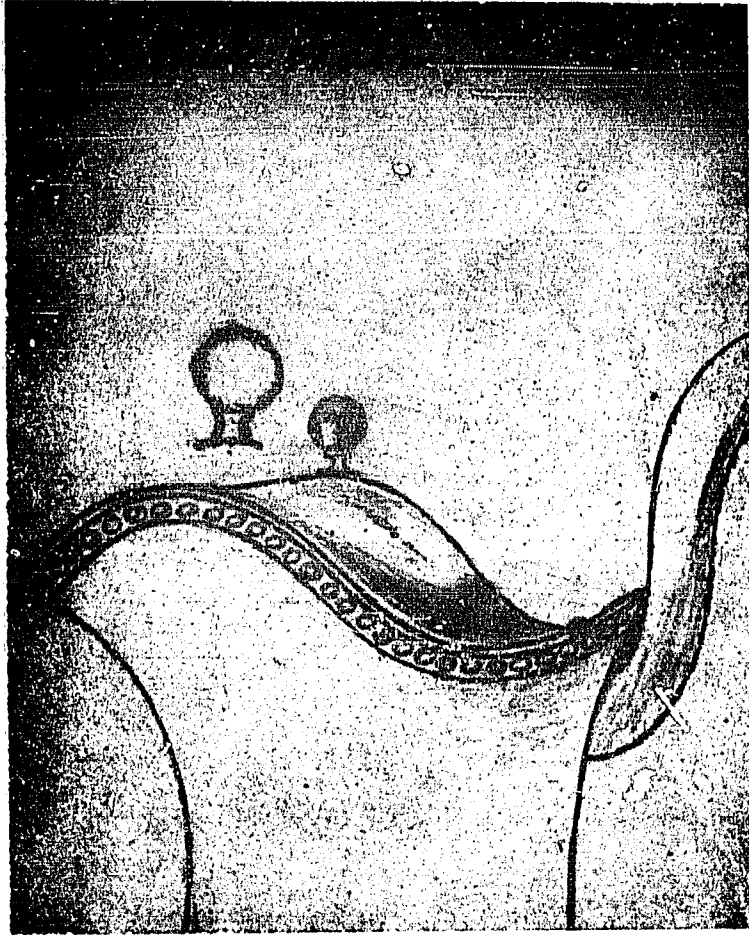


Figure 8

Rough sketch for a detail of covered pitcher. Laforme  
Shop Drawings, DMMC 71 x 246.106.



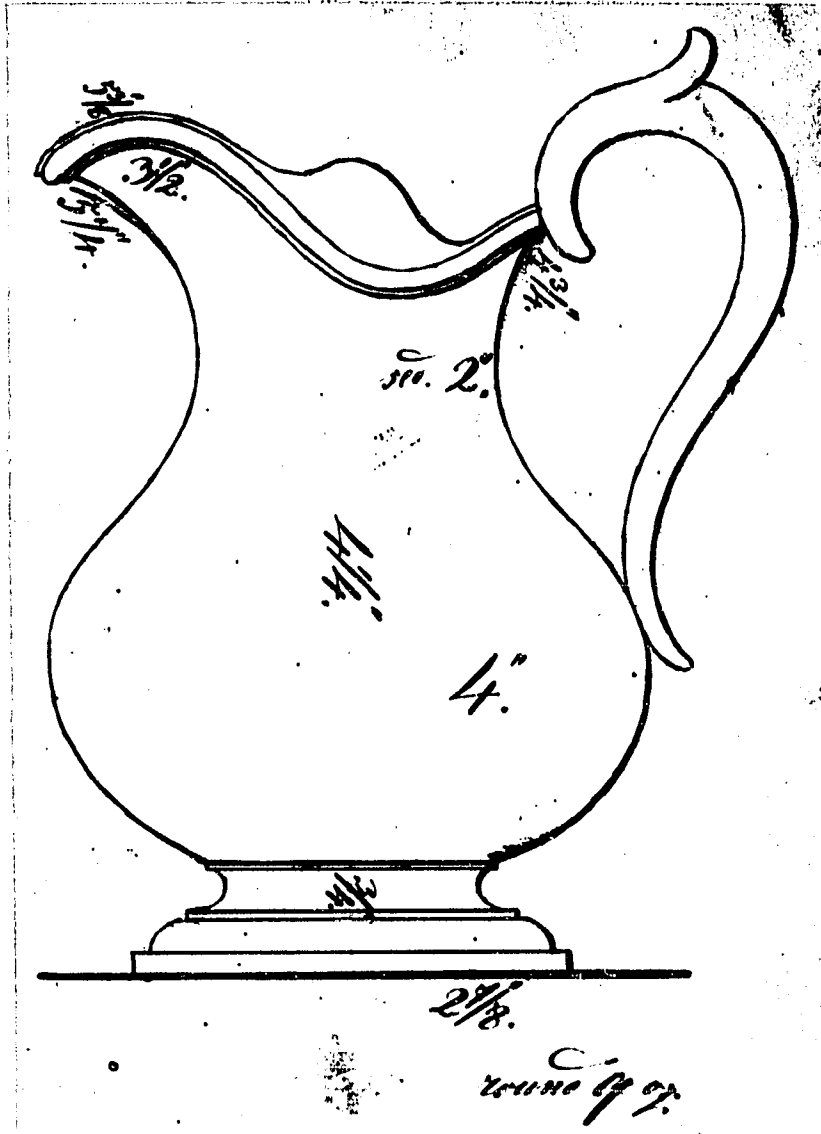


Figure 10

Final rough sketch for a covered pitcher, drawn to scale.  
 Laforme Shop Drawings, DMMC 71 x 246.108.

processes of the designer while exploring a new concept or a variation on a common form. They include experiments in form, style, and proportion (Figure 11).

Presentation drawings were used to sell a customer on a particular design or type of ornament. Unlike other sketches, presentation drawings are usually characterized by extremely fine detail and the addition of superfluous artistic embellishments such as chalk highlights and pencil shadings (Figures 12 and 13). One of the Laforme sketches is executed in a heavy gouache, which produces a very painterly effect but renders the drawing completely useless as a production aid. Generally, presentation drawings were not executed to scale. Several presentation sketches on paper printed with a decorative gold border were intended to give a client a choice from three different designs of, for example, cups (Figure 14). Each cup was varied in size or degree of ornament so that, no matter what the choice, the price would be roughly the same.

Planning sketches or layouts (Figures 15 and 16) aided the silversmith in determining the relative proportions of works en suite, such as tea services. The amount of silver needed to produce an object or a set of objects could also be easily calculated from such drawings. Planning sketches frequently show details such as cross-sections,

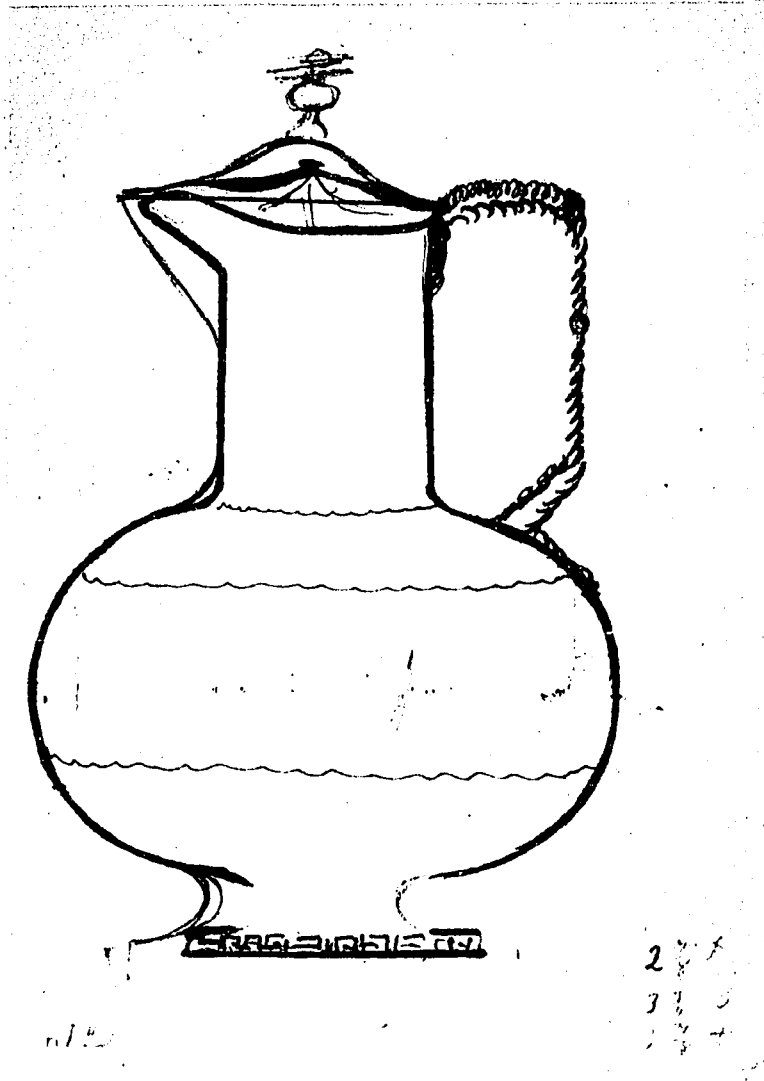


Figure 11

Rough sketch for a covered pitcher, with alternatives for lid, spout, and foot. Laforme Shop Drawings, DMMC 71 x 246.109.



Figure 12

Presentation drawing, with pencil shading, for a teapot.  
Laforme Shop Drawings, DMMC 71 x 246.137.

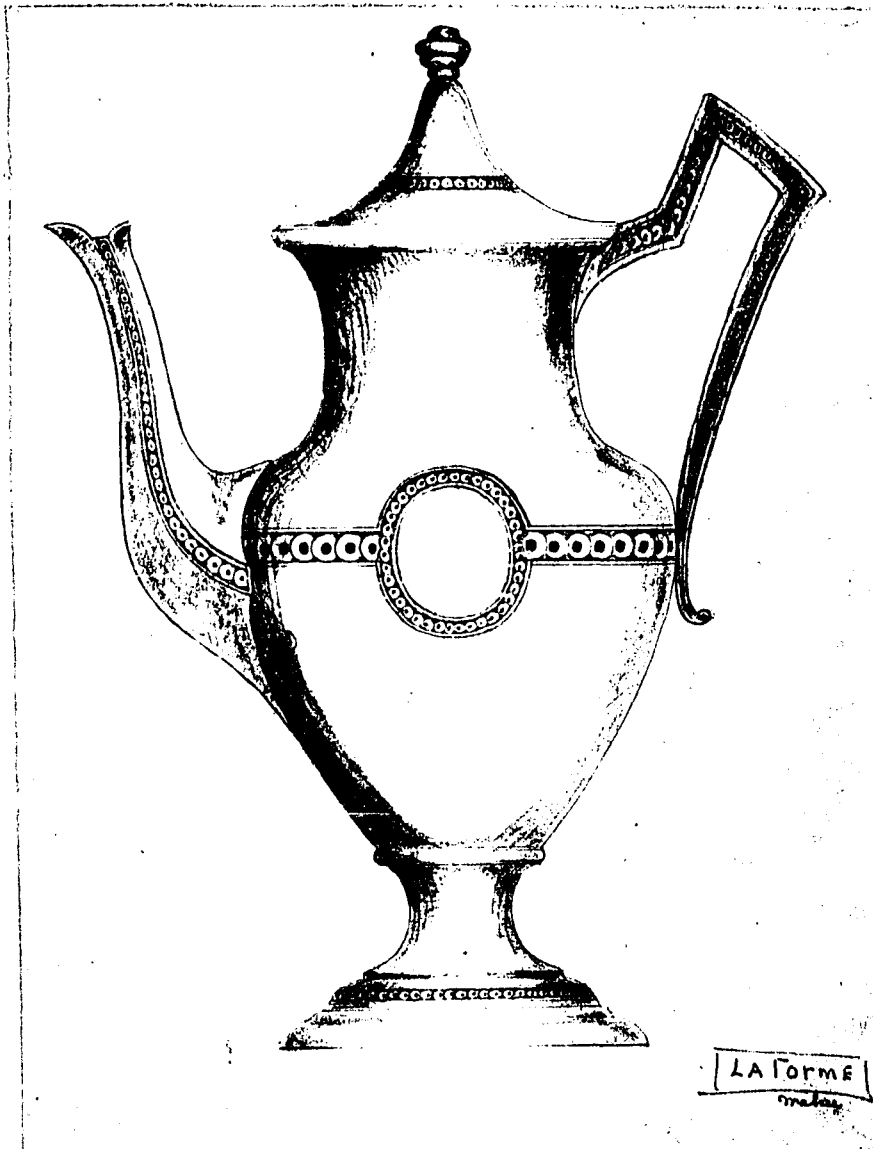


Figure 13

Presentation drawing, with pencil shading and chalk highlights, of a coffee pot. Signed on shaded area near spout [?D] Hoffman. Marked "LaForme" in a rectangle over "maker" in the lower right corner. Laforme Shop Drawings, DMMC 71 x 246.173.

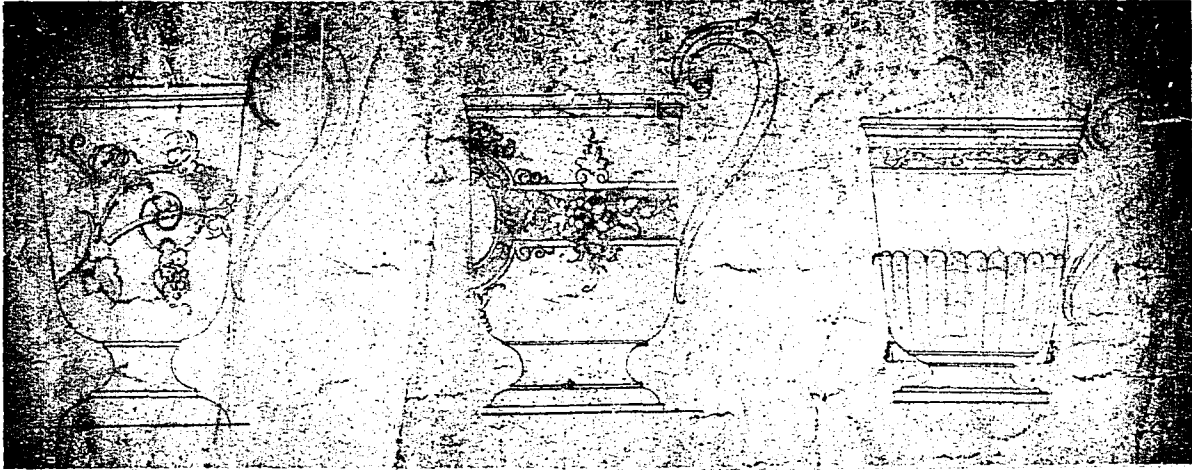


Figure 14

Presentation drawing of three cups of varying size.  
Laforme Shop Drawings, DMMC 71 x 246.11.

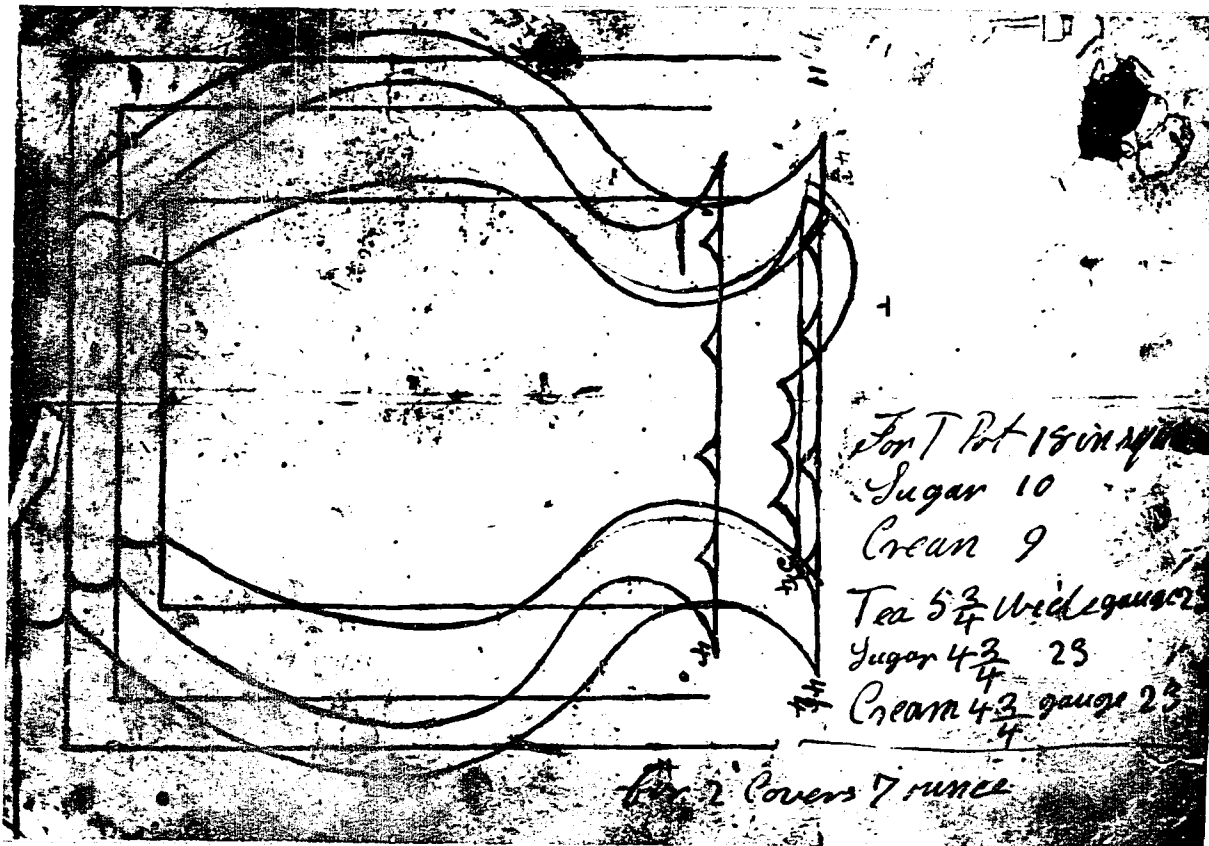


Figure 15

Planning sketch for three-piece tea service, with notations about quantities of metal needed for the service. Laforme Shop Drawings, DMMC 71 x 246.151.

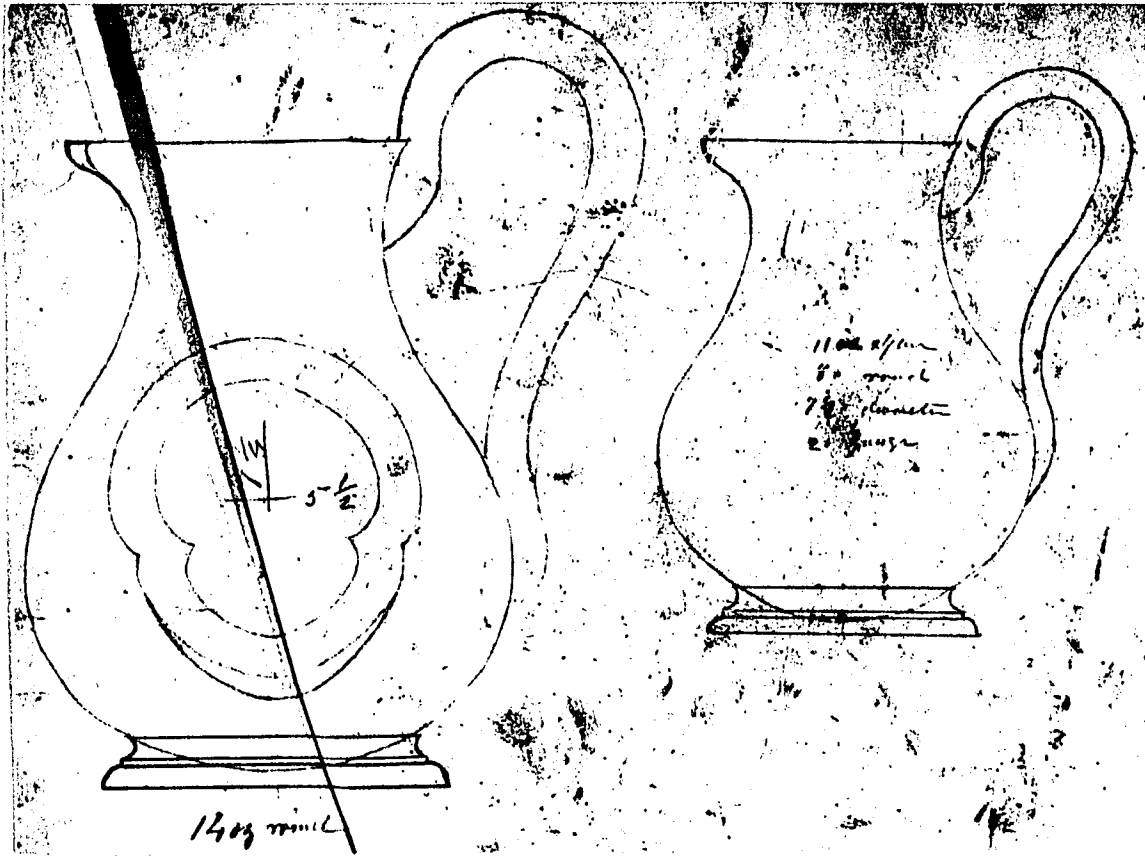


Figure 16

Planning sketch for two pitchers. Larger pitcher has overviews of the mouths of the two pitchers drawn on its side. Laforme Shop Drawings, DMMC 71 x 246.111.

or overviews of objects. They were always drawn to scale, and often contained notations about the gauge of the metal.

Finally, outlines of the bodies of pieces were drawn on stiff paper and cut out to form templates (Figures 17 and 18). Pin holes reveal that many of these patterns were hung near the workbench so that the silversmith could more easily compare the body of the piece he was forming with configuration of the template. Templates are always to scale and often have notations about dimensions penciled on them. Like many of the layout sketches, the patterns frequently have vertical bisecting folds, or lines drawn across the body of each piece, in order to aid the silversmith in producing a perfectly symmetrical outline.

The successive stages of the design and production process can be seen in the shop drawings for the Laforme tea and coffee service in Figure 19; only the rough preliminary sketches are missing. Figure 12 is a fairly detailed presentation drawing for the tea pot, shown without any chased embellishment on the body of the piece. Figures 15 and 18 are the layout sketch and the uncut templates, respectively. With these three shop drawings, a traditionally trained craftsman who was versed in all of the various

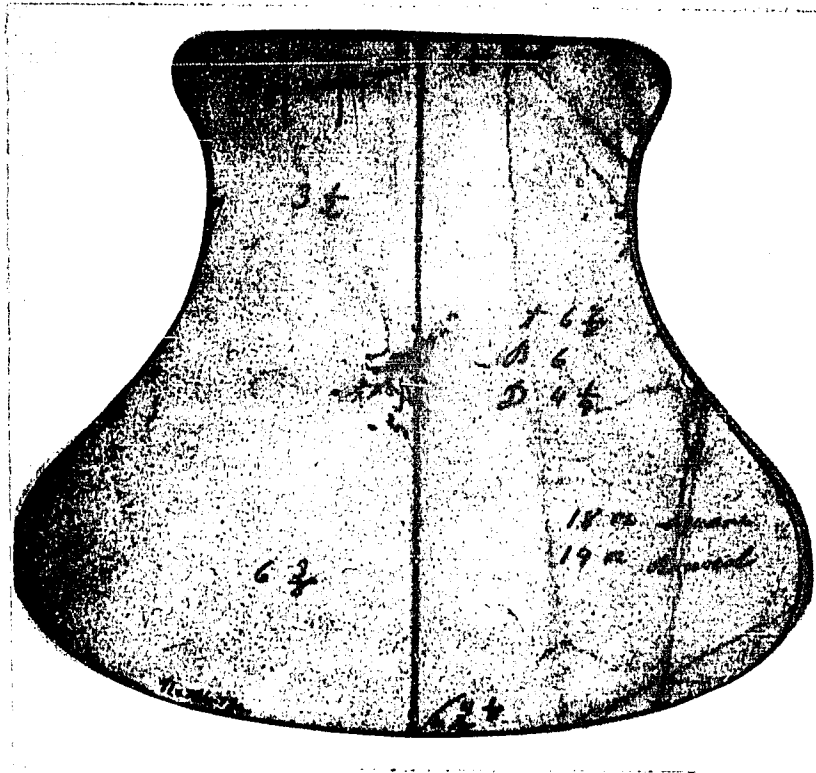


Figure 17

Template with central fold, pin holes, and scale notations.  
Laforme Shop Drawings, DMMC 71 x 246.78a.

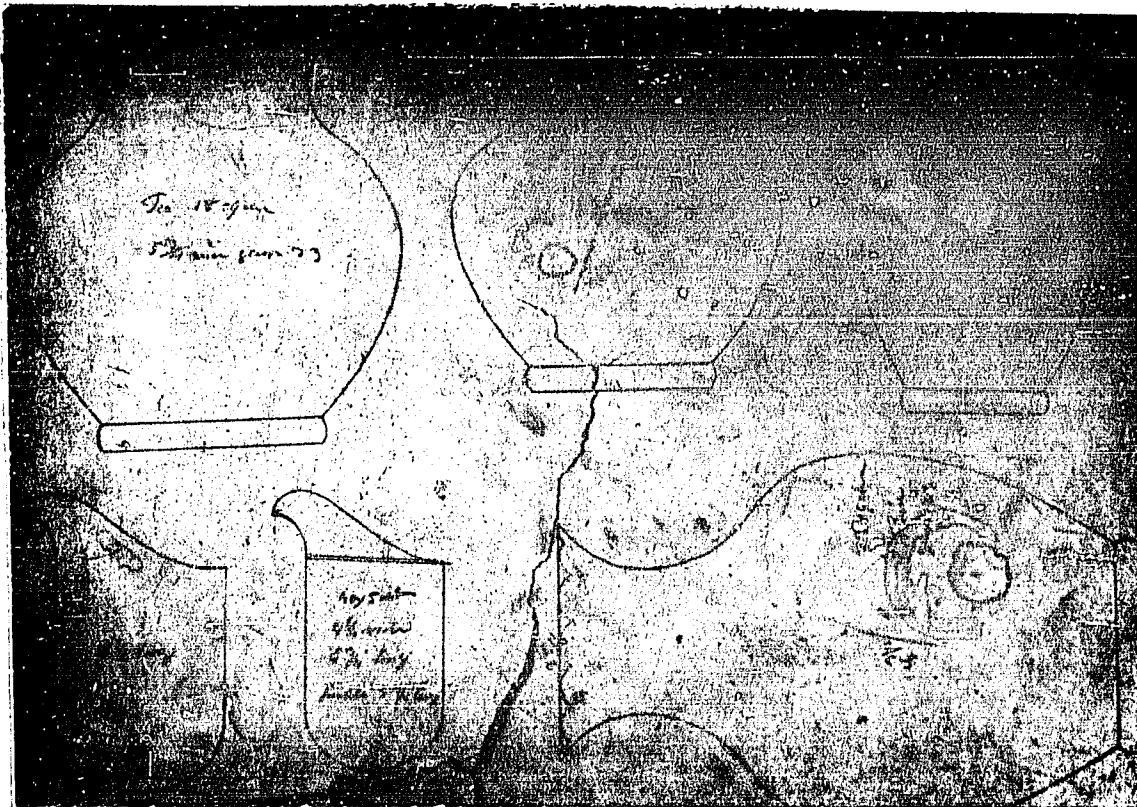


Figure 18

Page of uncut templates for a four-piece tea and coffee service and two small pitchers, with notations about quantities of metal required. Laforme Shop Drawings, DMMC 71 x 246.109.

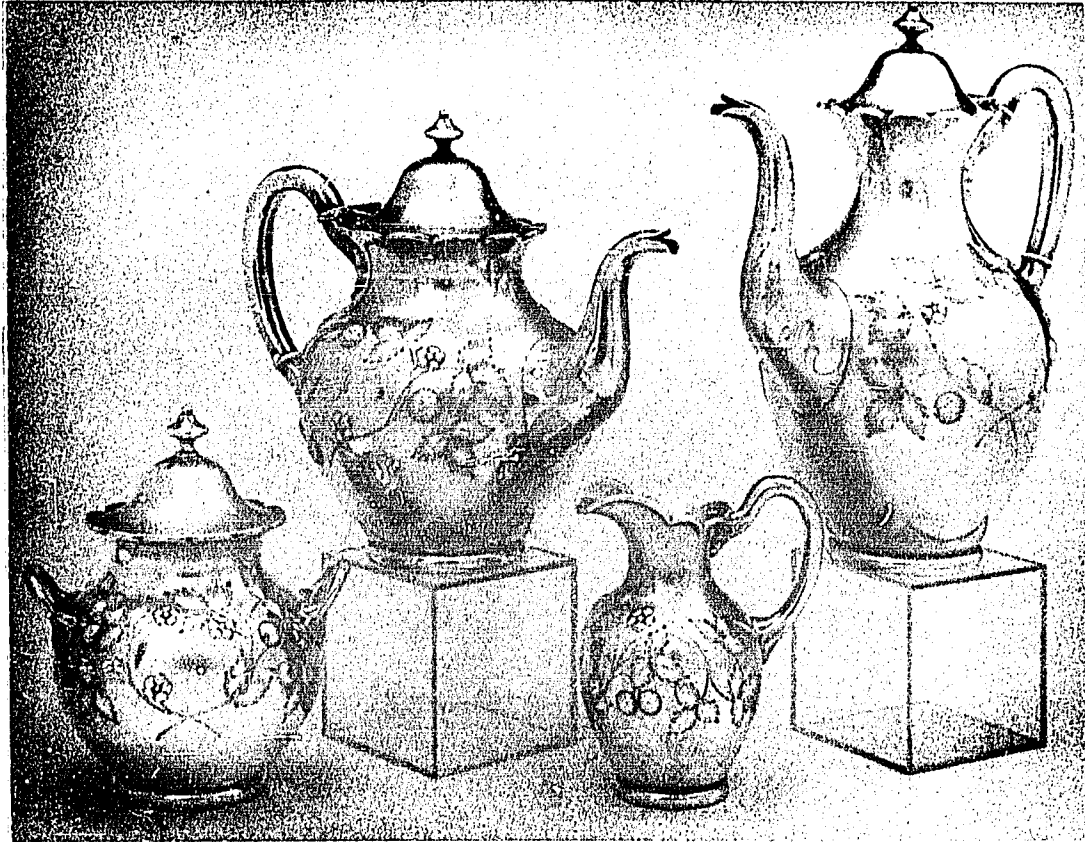


Figure 19

Four-piece tea and coffee service. Marked with old English L, an eagle, "Pure Coin", and "Boston" for Vincent Laforme of Boston. Retailed by Lincoln & Foss of Boston. H. of coffee pot 11 1/2". (Courtesy of Mr. and Mrs. Arthur Greenblatt.)

tasks involved in silversmithing could fashion a tea and coffee service similar to that in Figure 19.

## CONCLUSION

In a mass marketing situation, an individual craftsman can never compete successfully on economic terms with mechanization. For this reason, Vincent Laforme's stubborn tenacity in clinging to traditional production methods doomed his silversmithing enterprise to ultimate failure. He was but one of many artisans who, for want of sufficient capital, belief in the old ways, or a simple lack of foresight, was forced out of the mainstream by the demands of a burgeoning middle-class with a desire for inexpensive, status-bearing objects. There is reason to believe that Laforme had no deeply rooted ideological objections to mechanization; many of his creations incorporated some machine-made parts such as spun lids and footrings. He simply did not embrace all of the tenets of mass production fully enough nor quickly enough to survive in a fiercely competitive marketplace.

It was not so much the widespread introduction of machinery which altered the craft structure of the American silver making industry in the nineteenth century, as the combination of the use of machinery with the division of

labor. The resulting specialization effectively demoted the workers in the factories from the status of artisans to being merely laborers. Because of the total interdependence of the various departments in a given factory, workers on the assembly line relinquished their rights to artistic input in their product. At its worst, the mass production of silver became an endless series of rote repetitions. At its best, it provided a rapidly expanding middle-class with comparatively inexpensive goods of a uniformly high quality.

It has long been assumed that the mechanization of the silver industry substantially affected the product, either to its benefit or detriment. In actuality, the most profound changes were wrought both on the workers, who became isolated specialists, and on the designs for the objects, which became creative recombinations of stock components. Just as the production of an object was broken down into a series of separate tasks, so too was the design of an object reduced to its discrete elements. In the factory setting, objects were efficiently and economically designed or customized through the endless mergers of bodies, lids, spouts and decorative borders. This new approach to design and the segregation of tasks could be seen most clearly in the factory drawings. A new language

of communication between the designing room and the assembly line expressed the fundamental changes in the craft structure of the mechanized silver industry.

The Laforme silversmiths provided an important link between the traditional working methods of the eighteenth century and the innovations of the nineteenth century. Vincent's initial determined defiance and subsequent submission to change in the form of specialization are persuasive indications of the role which economics played in the decorative arts. Mechanization in the nineteenth century silver industry became inevitable only when it became economically feasible. The demands of an upwardly mobile middle-class combined with a sharp decline in the price of raw silver proved to be an insurmountable obstacle to the continuance of traditional silversmithing on a widespread basis.

## NOTES

<sup>1</sup>R.G. Dun & Co. Collection, Baker Library, Harvard University Graduate School of Business Administration, Massachusetts vol. 72, (hereafter R.G. Dun & Co.), p. 544, 22 Feb. 1884.

<sup>2</sup>For a discussion of similar alternatives in the pewtermaking business see: George S. Gibb, The Whitesmiths of Taunton (Cambridge, Massachusetts: Harvard University Press, 1943), p. 25.

<sup>3</sup>Charles H. Carpenter, Jr. and Mary G. Carpenter, Tiffany Silver (New York: Dodd, Mead & Co., 1978), pp. 88, 246, 249.

<sup>4</sup>Oscar Handlin, Boston's Immigrants (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 1959), pp. 30-31.

<sup>5</sup>Edwin T. Freedley, Leading Pursuits and Leading Men (Philadelphia: Edward Young, 1856), p. 396.

<sup>6</sup>Stimpson's Boston Directory (Boston: Charles Stimpson, Jr., 1835). Edwin Freedley states that the business was established in 1833, and the Boston directory lists Anthony as a silversmith in 1834, although no residential address is given for that year.

<sup>7</sup>Boston Directory, 1836.

<sup>8</sup>City of Boston Death Records, 1845, p. 179, State Division of Vital Statistics, Boston, Massachusetts.

<sup>9</sup>Boston Directory, 1834-1846.

<sup>10</sup>Boston Directory, 1844; City of Boston Marriage Records, 1845, vol. 2, p. 64, State Division of Vital Statistics, Boston, Massachusetts; Boston Directory, 1845.

<sup>11</sup>Boston Directory, 1850/51.

<sup>12</sup>Schedule of Industry for Suffolk County, Massachusetts, Ward 7, 1850 Census of Manufacturers, Records of the United States Bureau of the Census, Archives of the Commonwealth of Massachusetts, State House, Boston.

<sup>13</sup>Boston Directory, 1851-1853.

<sup>14</sup>Freedley, p. 396.

<sup>15</sup>Freedley, p. 396.

<sup>16</sup>F.J. Laforme & Co. does not appear again in the Boston city directories after 1856.

<sup>17</sup>Laforme Shop Drawings, Joseph Downs Manuscript and Microfilm Library of the Henry Francis du Pont Winterthur Museum (hereafter DMMC), 71 x 246.26, .45, 76a.

<sup>18</sup>DMMC 71 x 246.79. This is the only evidence that any of the Laforme silversmiths maintained account books.

<sup>19</sup>F.J. Laforme, A Treatise on the Nature, Causes, Symptoms, and Prevention of Pulmonary Consumption (Boston: n.p., n.d.), pp. 1-12.

<sup>20</sup>Boston Directory, 1851.

<sup>21</sup>City of Boston Death Records, 1895, vol. 456, p. 554.

<sup>22</sup>Boston Directory, 1860-1882; City of Boston Death Records, 1895, vol. 456, p. 554.

<sup>23</sup>Boston Directory, 1857-1893.

<sup>24</sup>R.G. Dun & Co., p. 296, 10 Feb. 1860.

<sup>25</sup>Boston Directory, 1856.

<sup>26</sup>R.G. Dun & Co., p. 296, 10 Feb. 1860.

<sup>27</sup>R.G. Dun & Co., p. 296, 10 Feb. 1860; Boston Directory, 1871.

<sup>28</sup>R.G. Dun & Co., p. 417, 12 Oct. 1870.

<sup>29</sup>Schedule of Industry for Boston, Massachusetts, Ward 4, 1870 Census of Manufacturers, Records of the United States Bureau of the Census, Archives of the Commonwealth of Massachusetts, State House, Boston.

<sup>30</sup>R.G. Dun & Co., p. 417, 26 Sept. 1871.

<sup>31</sup>R.G. Dun & Co., p. 417, 12 Oct. 1878, 15 March 1881.

<sup>32</sup>Boston Directory, 1876, p. 1331; 1877, p. 1225.

<sup>33</sup>R.G. Dun & Co., p. 417, 4 March 1883; p. 544, 8 June 1883.

<sup>34</sup>R.G. Dun & Co., p. 544, 13 Sept. 1883 - 10 Aug. 1885.

<sup>35</sup>Boston Directory, 1887-1893.

<sup>36</sup>DMMC 71 x 246.9,.162,.148.

<sup>37</sup>Vincent Laforme was a member of this parish, which was located near his home in what is now South Boston.

<sup>38</sup>Boston Directory, 1850/51, 1891.

<sup>39</sup>City of Boston Death Records, 1893, vol. 438, p. 267; Boston Directory, 1894-1909; DMMC 71 x 246, case file, J. Herbert Gebelein, Letter to Frank H. Sommer, 22 Nov. 1971.

<sup>40</sup>City of Boston Probate Records, Docket 91741, Estate of Sarah J. Laforme, Registry of Probate, Boston, Massachusetts.

<sup>41</sup>Gibb, pp. 213-214; Carpenter, p. 51.

<sup>42</sup>Gibb, p. 13; Eric Delieb, Matthew Boulton: Master Silversmith, 1760-1790 (New York: C.N. Potter, 1971), p. 29.

<sup>43</sup>R. Campbell, The London Tradesman (London, 1747; rpt. Devon: David & Charles, 1969), pp. 141-142.

<sup>44</sup>Abraham Rees, The Cyclopaedia; or, Universal Dictionary of Arts, Sciences, and Literature (Philadelphia: Samuel F. Bradford and Murry, Fairman and Co., 1810-1824), n. pag. Section on Plated Manufacture.

45 "The Manufacture of Silverware," Scientific American, 36 No. 19 (12 May 1877), 289-291; "Among the Silver-Platers," Appleton's Journal, 5, no. 31 (December 1878), 481-494; Carpenter, pp. 222-223.

46 Campbell, pp. 143-147, 142.

47 Gibb, p. 281.

48 See Gibb, illustration opposite p. 283. Rule number 6 of the Rules and Regulations for the employees of the Reed & Barton Company stipulated that "no visiting of other rooms in working hours, except on necessary business, is allowed."

49 Gibb, pp. 113, 254 "The Manufacture of Silverware," p. 291; Carpenter, p. 229.

50 Similarities in cast elements, such as the handles in Figures 3-5, suggests that small firms may have been purchasing mass produced molds from a common source.

51 Carpenter, p. 12; Gibb, p. 284.

52 For a discussion of the use of engineering drawings as a means of controlling production see: Ken Baynes and Francis Pugh, The Art of the Engineer (A Welsh Arts Council Touring Exhibition, 1978), especially p. 2.

53 Gibb, p. 251.

54 Carpenter, pp. 72-77.

55 A group of Fletcher and Gardiner's shop drawings are on deposit in Prints and Drawings Collection of the Metropolitan Museum of Art. Like the Laforme drawings, they exhibit very traditional methods of communication.

## BIBLIOGRAPHY

### I. Secondary Source Material

#### Articles

Culme, John. "Beauty and the Beast: The Growth of Mechanisation in the English Plate, Plated and Allied Industries." Connoisseur, Sept. 1977, pp. 44-53.

Ettema, Michael John. "Technological Innovation and Design Economics in American Furniture Manufacture of the Nineteenth Century." Master's thesis, University of Delaware, 1981.

Fennimore, Donald L. "Elegant Patterns of Uncommon Good Taste: Domestic Silver by Thomas Fletcher and Sidney Gardiner." Master's thesis, University of Delaware, 1971.

Ferguson, Eugene S. "The Mind's Eye: Nonverbal Thought in Technology." Science, 197, no. 4306 (26 August 1977), 827 - 836.

"Silversmiths' Shop Sketches Received as Gift." Winterthur Newsletter, 18, no. 2 (Feb. 1972), 1-3.

Waters, Deborah Dependahl. "From Pure Coin: The Manufacture of American Silver Flatware, 1800-1860." In Winterthur Portfolio 12, edited by Ian M.G. Quimby, pp. 19-33. Charlottesville: University Press of Virginia, 1977.

#### Books and Catalogues

Baynes, Ken and Francis Pugh. The Art of the Engineer. A Welsh Arts Council Touring Exhibition, 1978.

- Belden, Louise Conway. Marks of American Silversmiths in the Ineson-Bissell Collection. Charlottesville: The University Press of Virginia, 1980.
- Carpenter, Charles H., Jr. and Mary G. Carpenter. Tiffany Silver. New York: Dodd, Mead & Co., 1978.
- Crescent City Silver. Catalogue of an exhibition, April 16 to November 21, 1980. Baton Rouge: Anglo-American Art Museum of the Louisiana State University, 1980.
- Delieb, Eric. Matthew Boulton: Master Silversmith, 1760-1790. New York: C.N. Potter, 1971.
- Ensko, Stephen G.C. American Silversmiths and Their Marks. New York: Privately printed, 1927.
- \_\_\_\_\_. American Silversmiths and Their Marks, II. New York: Robert Ensko, 1937.
- \_\_\_\_\_. American Silversmiths and Their Marks, III. New York: Robert Ensko, 1948.
- Fales, Martha Gandy. Early American Silver. New York: E.P. Dutton, 1973.
- \_\_\_\_\_. Joseph Richardson and Family, Philadelphia Silversmiths. Middletown, Ct.: Wesleyan University Press 1974.
- Fredyma, Paul J., and Marie-Louise Fredyma. A Directory of Boston Silversmiths and Watch and Clock Makers. Hanover, N.H.: Privately printed, 1975.
- Gibb, George Sweet. The Whitesmiths of Taunton: A History of Reed and Barton 1824-1943. Cambridge, Ma.: Harvard University Press, 1943.
- Giedion, Siegfried. Mechanization Takes Command. New York: W.W. Norton & Company, Inc., 1948.
- Handlin, Oscar. Boston's Immigrants. Cambridge, Ma.: The Belknap Press of Harvard University Press, 1959.
- Kovel, Ralph H., and Terry H. Kovel. A Directory of American Silver, Pewter, and Silver Plate. New York: Crown Publishers, 1961.

- McClinton, Katharine Morrison. Collecting American Nineteenth-Century Silver. New York: Scribner's, 1968.
- Natchez-Made Silver of the Nineteenth Century. Catalogue of an exhibition, January 4 to March 5, 1970. Baton Rouge: Anglo-American Art Museum, Louisiana State University, 1970.
- The New England Silversmith. Catalogue of an exhibition, October 23 to November 28, 1965. Providence: Rhode Island School of Design Museum of Art, 1965.
- Nineteenth-Century America: Furniture and Other Decorative Arts. Catalogue of an exhibition, April 16 to September 7, 1970. New York: Metropolitan Museum of Arts, 1970.
- Professional and Industrial History of Suffolk County Massachusetts. Vol. II. Boston: The Boston History Company, 1894.
- Pye, David. The Nature and Art of Workmanship. London: Studio Vista, 1968.
- \_\_\_\_\_. The Nature of Design. London: Studio Vista, 1972.
- Rainwater, Dorothy T. Encyclopedia of American Silver Manufacturers. New York: Crown Publishers, 1975.
- Smith, Merritt Roe. Harpers Ferry Armory and the New Technology: The Challenge of Change. Ithaca: Cornell University Press, 1977.
- Southern Silver. Catalogue of an exhibition, September 27 to November 10, 1968. Houston: The Museum of Fine Arts, 1968.
- Turner, Noel D. American Silver Flatware, 1837-1910. New York: Barnes, 1972.
- Untracht, Oppi. Metal Techniques for Craftsmen. Garden City, New York: Doubleday & Company, Inc., 1975.
- Ward, Barbara McLean and Gerald W.R. Ward, eds. Silver in American Life. New York: The American Federation of Arts, 1979.
- The Warner Family: Silversmiths to Baltimore. Catalogue of an exhibition, March, 1971. Baltimore: the Peale Museum, 1971.

Wyler, Seymour B. The Book of Old Silver. New York: Crown Publishers, 1937.

## II. Primary Source Material

### Articles and Pamphlets

"Among the Silver-Platers." Appleton's Journal, 5, no. 31 (December 1878) 481-494.

Laforme, F.J. A Treatise on the Nature, Causes, Symptoms, and Prevention of Pulmonary Consumption. Boston: n.p., n.d.

"The Manufacture of Silverware." Scientific American, 36, no. 19 (12 May 1877), 289-291.

### Books and Catalogues

Bigelow, Jacob. The School Library. Vol. II of The Useful Arts. Boston: Marsh, Capen, Lyon, and Webb, 1840.

Campbell, R. The London Tradesman. London, 1747; rpt. Devon: David & Charles, 1969

Fleischmann, C.L. Trade, Manufacture, and Commerce in the United States of America. Stuttgart, 1852; rpt. Jerusalem: Israel Program for Scientific Translations, 1970.

Freedley, Edwin T., ed. Leading Pursuits and Leading Men: A Treatise on the Principal Trades and Manufactures in the United States. Philadelphia: Edward Young, 1856.

Knight, Charles. Knight's Cyclopaedia of the Industry of All Nations. London: Charles Knight, 1851.

Knight, Edward H. Knight's American Mechanical Dictionary. Boston: Houghton, Osgood and Company, 1880.

A New Universal History of Arts and Sciences. London: J. Coote, 1759.

Rees, Abraham. The Cyclopaedia; or, Universal Dictionary of Arts, Sciences, and Literature. Philadelphia: Samuel F. Bradford and Murry, Fairman and Co., 1810-1824.

Rosenberg, Nathan, ed. The American System of Manufactures: The Report of the Committee on the Machinery of the United States, 1855 and the Special Reports of George Wallis and Joseph Whitworth, 1854. Edinburgh: The University Press, 1969.

Smith, Adam. An Inquiry into the Nature and Causes of the Wealth of Nations. Ed. Edwin Cannan. New York: G.P. Putnam's Sons, 1904.

Stimpson's Boston Directory. Boston: Charles Stimpson, Jr., 1834 through 1909.

Ure, Andrew. A Dictionary of Arts, Manufactures, and Mines. London: Longman, Orme, Brown, Green & Longmans, 1839.

#### Manuscripts

City of Boston Death Records, 1845, 1893, 1895, State Division of Vital Statistics, Boston, Massachusetts.

City of Boston Marriage Records, 1845, State Division of Vital Statistics, Boston, Massachusetts.

City of Boston Probate Records, Docket 91741, Estate of Sarah J. Laforme, Registry of Probate, Boston, Massachusetts.

Fletcher and Gardiner Drawings, Metropolitan Museum of Art.

Laforme Shop Drawings, Joseph Downs Manuscript and Microfilm Library of the Henry Francis du Pont Winterthur Museum.

R.G. Dun & Co. Collection, Baker Library, Harvard University Graduate School of Business Administration.

Schedules of Industry for Boston, Massachusetts, 1850 and 1870 Census of Manufactures, Records of the United States Bureau of the Census, Archives of the Commonwealth of Massachusetts, State House, Boston.

## APPENDIX

### List of Touch Marks

The following photographic list includes all known touch marks used by the Laforme silversmiths. Dates have been noted whenever available, but because of the paucity of dated Laforme silver it has not been possible to provide dates for each mark.

Figures A and B were used by Vincent Laforme & Brother between 1850 and 1853. Figures C, D, and E were used by Vincent Laforme during the mid and late 1850's. Figures F and G are undated marks which appear to have been used after 1858. Figure H is an example of an overstruck mark.



Figure A

Depressed rectangle containing raised block letters "V.L.&B." with a period following each letter. Depressed rectangle containing raised block letters "PURE COIN" over struck three times. Depressed rectangle containing raised block letters "Boston".

Found on a goblet dated 1850. (Private collection.)



Figure B

Depressed rectangle containing raised block letters "V.L.&B." with a period following each letter. Depressed rectangle containing raised block letters "PURE COIN". Incised block letters "BOSTON." with a period. Retailer's mark for Lincoln & Foss.

Found on a pitcher dated 1851. (Courtesy of the Worcester Art Museum.)

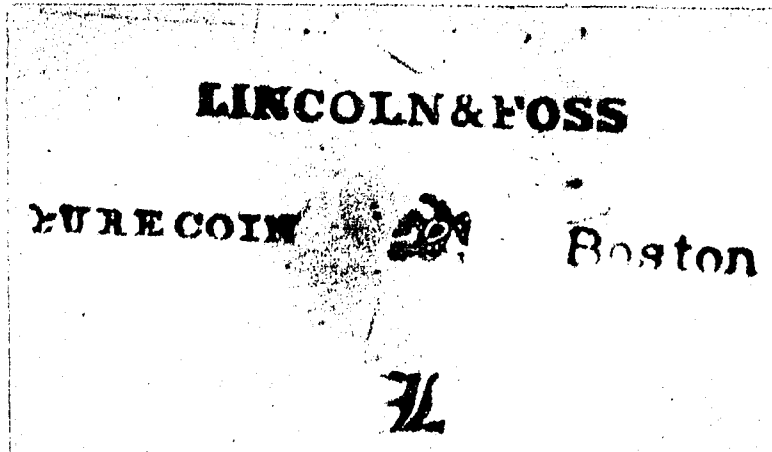


Figure C

Incised old English script "L". Incised eagle clutching three arrows, with a shield. Incised block letters "PURE COIN" with a break in the letter "P". Incised block letters "Boston". Retailer's mark for Lincoln & Foss.

Found on a pitcher dated 1858. (Courtesy of Gebelein Silversmiths.)

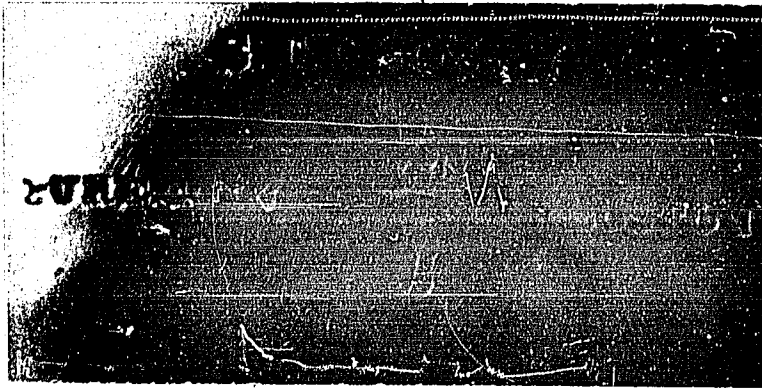


Figure D

Incised old English script "L". Incised eagle clutching three arrows, with a shield. Incised block letters "PURE COIN" with a break in the letter "P". Incised block letters "BOSTON." followed by a period. Retailer's mark for S.T. Crosby.

Found on pieces of a tea and coffee service dated 1858.  
(Courtesy of Shreve, Crump & Low Co.)

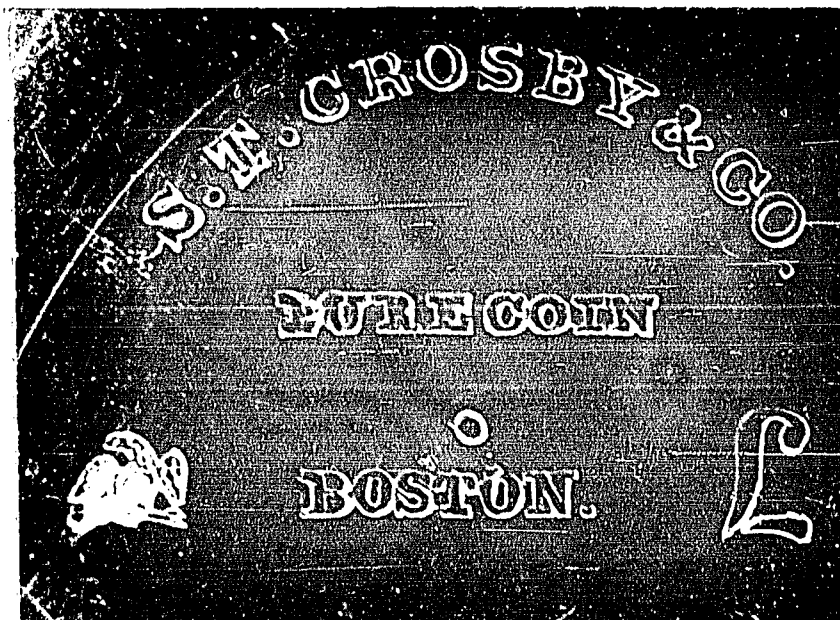


Figure E

Incised script "L". Incised eagle clutching three arrows, with a shield. Incised block letters "PURE COIN" with a break in the letter "P". Incised block letters "BOSTON." followed by a period. Retailer's mark for S.T. Crosby & Co.

Found on pieces of the same tea and coffee service cited in Figure D. (Courtesy of Shreve, Crump & Low Co.)

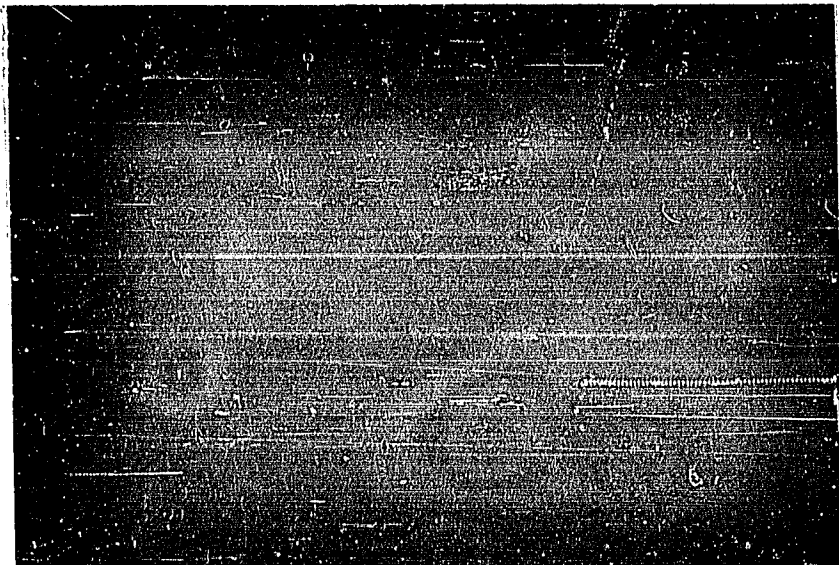


Figure F

Incised block letters "V.LAFORME." with a period following the "V" and the "E". Incised block letters "COIN ." followed at a distance by a period. Incised block letters "BOSTON." followed by a period.

Undated. Found stamped into the paper upon which one of the Laforme sketches is drawn. (DMMC 71 x 246.46)

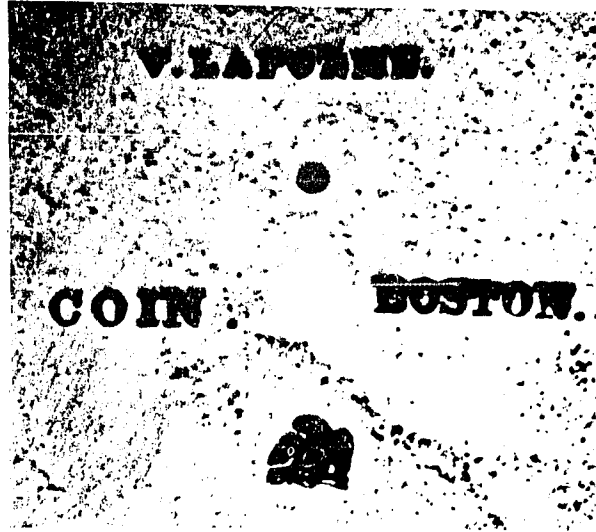


Figure G

Incised block letters "V.LAFORME." with a period following the "V" and the "E". Incised eagle clutching three arrows, with a shield. Incised block letters "COIN ." followed at a distance by a period. Incised block letters "BOSTON." followed by a period.

Undated. Found on a honeypot. (Private collection.)

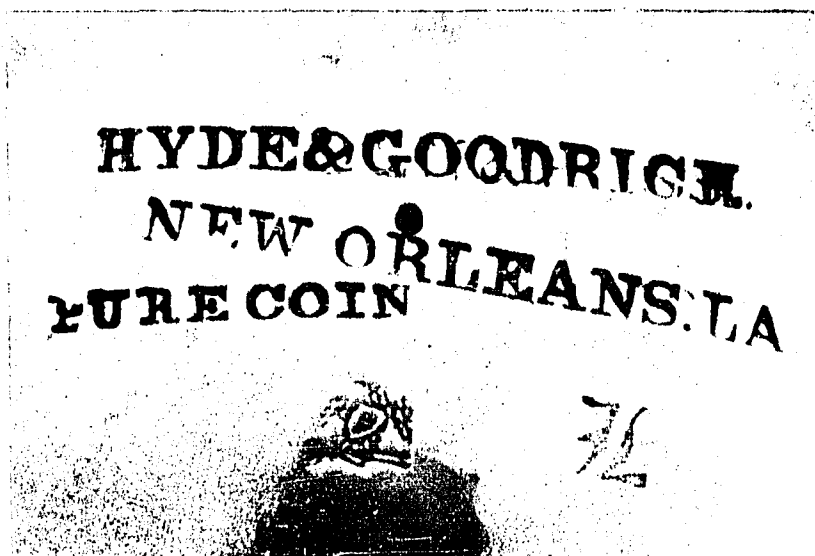


Figure H

Incised old English script "L". Incised eagle clutching three arrows, with a shield. Incised block letters "PURE COIN" with a break in the letter "P". Incised block letters "NEW ORLEANS.LA" struck over incised block letters "BOSTON". Retailer's mark for Hyde & Goodrich struck over retailer's mark for Lincoln & Foss.

Found on two tea pots and a sugar bowl. An example of silver which has been retailed by two different firms. (Private collection.)