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THE DECORATIVE LIGHTING DEVICES OF DIETZ AND
COMPANY OF NEW YORK, 1840-1875.

UNIVERSITY OF DELAWARE (WINTERTHUR PROGRAM),
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THE DECORATIVE LIGHTING DEVICES OF
DIETZ AND COMPANY OF NEW YORK
1840-1875

BY

Ulysses Grant Dietz

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.

May 1980

THE DECORATIVE LIGHTING DEVICES OF

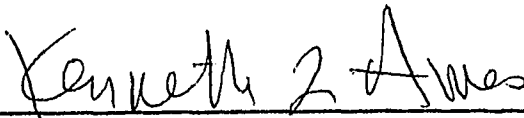
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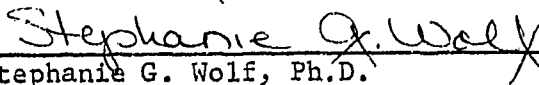
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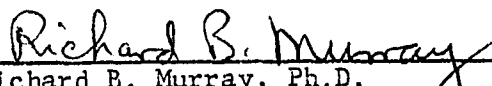
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Frontispiece from A Leaf From the Past; Daguerreotype taken at the time of R. E. Dietz's marriage in 1846.

(Frontispiece)

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PART I: The Company

In 1890, the R. E. Dietz Company of New York sent out chromolithographed flyers as a Christmas greeting, presumably to its customers.¹ This advertisement/greeting celebrated the fiftieth anniversary of the company's founding by its namesake and president, Robert Edwin Dietz, then seventy-two.

The flyer takes the form of a folding triptych, showing an "old-fashioned" pierced tin lantern of "fifty or more years ago" on the left side, with a modern tubular Dietz lantern on the right. The central panel is made up of a pair of modestly-draped putti holding up a printed greeting, which gives the raison d'être of the firm: the first application of the tubular principle to the kerosene lantern by R. E. Dietz in 1868. While the message alludes to the "vast improvements" in the production of artificial lighting over the fifty years of the firm's history, there is no indication of the company's production before 1868. Except for the all-important date of 1840, when the firm was established, the past of the company is virtually ignored. However, the great variety of surviving labeled Dietz lamps and girandoles from before 1855 suggests the breadth and size of the firm's early production, and calls for further inquiry into this long-neglected facet of Dietz's career.

That the lantern firm was successful is evident, since its second president, Frederick Dietz, was included among Moses King's Notable New Yorkers of 1896-1899 as the head of the prominent lantern and streetlamp firm.² The mystery remains, however, as to just what the company manufactured between its founding in 1840 and the introduction of the tubular lantern as its major product somewhere around 1868. So important was the lantern to the firm's reputation, it seems, that any products manufactured previous to the lantern's introduction were deemed irrelevant, and not included in the picture. Indeed, it is still the tubular lantern for which the firm is today best known, even though lanterns make up a relatively small part of the output, and have not in fact been manufactured in the United States since the 1960s.

A history of the Dietz family and business was privately printed in 1913 by Frederick Dietz,³ and from the generous inclusion of random facts about Old New York, its purpose seems to have been as much to link the Dietz family with the past as it was to illuminate the firm's history. Nonetheless, this little book, along with the manuscript diary of R. E. Dietz on which it was based, has proved to be a vital source of information for this paper, and served as the starting point in my research. In it is a skeleton account of the pre-1868 history of Robert E. Dietz and the small lampworks, founded in Brooklyn in 1840, which would grow, change, and survive, leaving him a rich and respected man at his death in 1897. This paper will, in part, deal with this early phase of Dietz's enterprise and attempt to come to an understanding of the nature of his early business and

the reasons for its dramatic changes by 1870. The scope of this understanding will be necessarily limited by the lack of surviving records in the company itself, and by the patchwork quality of the information culled from advertisements, census and credit records, and directories of the period.

In order to come to grips with the actual products of Dietz's lamp-making years, the study of surviving marked objects seemed at first to be the only solution. Fortunately, the present company archives retain a copy, perhaps unique, of an extraordinary full-color catalogue printed for the firm sometime in 1860.⁴ With this catalogue at my disposal, it became apparent that there was a potential for discussing unmarked objects, and attributing such objects to the Dietz firm based on design alone. Furthermore, objects--marked and unmarked--which had long histories in the Dietz family began to surface, and add to the pool of surviving objects found through inquiry. Thus the second major thrust of this paper will be to deal with the design and attribution of the lamps and girandoles manufactured by the Dietz firm, and to place these decorative lighting devices in the context of the nineteenth-century American home, as well as in the context of nineteenth-century America generally. Having given some sense of Dietz's standing as a popular lighting producer in relation to his more famous peers, such as Cornelius, I hope to deal with design sources and trends in nineteenth-century lighting, as well as with the problem of design "borrowing" between firms and its ramifications for attribution.

Finally, I hope that this study will also provide a picture of Robert Edwin Dietz himself. Born in the early years of the nineteenth century, he worked during a seventy-five-year period which saw remarkable and often frightening changes in the economic and social structure of America. R. E. Dietz was very much a part of those changes--and like many of his peers, may have feared what he saw as much as he in part caused the changes he feared. In many ways Dietz seems to typify the "venturous conservative" Marvin Meyers has described--constantly seeking change, yet fearing any drastic changes; yearning for economic stability, yet constantly risking that stability for the chance of something better.⁵ Dietz was the speculative entrepreneur, as well as the "careful conservative man" whose credit was always good.⁶ It is a goal of this study to place Robert Edwin Dietz among his peers, presenting him at once as a unique individual, and a typical American of his times.

John (Johannes) Joachim Dietz, R. E. Dietz's grandfather, was the first member of the family to emigrate from his native Barr, an Alsatian town eighteen miles southwest of Strasbourg. Both Dietz's birth date and emigration date remain unclear; all we know is that he and his two brothers, William and Andrew, arrived in New York "before the Revolution."⁷ A powderhorn dated 1761 and bearing Dietz's name remains in the family. One may assume that he was nearly twenty-one when he settled in New York, as his training as a

leather-dresser was adequate for him to open a tannery at what is now the corner of Spring and Wooster Streets in New York. His brothers both seem to have disappeared into the military, William joining the Continental Army in northern New York, while Andrew joined the city army of New York and drowned in New York harbor some time thereafter. Neither seems to have married.⁸

John Joachim married Mary Frederica Rhinelanders Andes, a widow, in 1790. This date, implying an extremely late first marriage, puts Dietz in his late forties or early fifties, assuming that he was nearly twenty when he emigrated. Dietz was married at the German Lutheran Church, which then stood on William Street.⁹ The family seems to have adopted strong ties with both the German and Dutch families in New York.¹⁰ By 1803 the Dietzes had seven children, the eldest of whom was John Dietz, Jr., born in 1791, father of R. E. Dietz.¹¹

The earliest record of John Joachim Dietz appears in the 1790 census of New York State, which lists a single Johannes Dietz in New York County. When Dietz's name was actually anglicized to John, or whether or not he was consistent in his usage of the English version, is open to speculation. After this one entry, not a single entry for any member of the Dietz family appears in the census through 1850. The name John Dietz does appear, however, in the 1799 estate inventory of Robert Affleck, a textile and dry-goods merchant on William Street in New York.¹² Affleck had owed one John Dietz £9:0:4

since 1796. Since Affleck lived close to Dietz's tannery, and may well have purchased finished hides from him, this may in fact be the John Dietz in question. I have found no other indication of Dietz's presence in New York before 1800.

According to family tradition, John Joachim was granted the first city charter to operate a glue works in New York in 1800. The establishment, originally on Magazine (now Pearl) Street, was moved to the old tannery site in 1810, where it remained under Dietz's control until purchased by Peter Cooper in 1822. At this point it seems John Joachim retired (at the age of somewhere near eighty-two) and moved to a son-in-law's house in Harlem (now 127th Street).¹³

Robert Edwin Dietz was born in 1818 in his grandfather's house on Spring Street, near the leather tannery. He was the third eldest of ten children born between 1814 and 1835 to John, Jr., and Sophia Meinell. At some point, all five of his surviving brothers--John G., William Henry, Samuel, James Meinell, and Michael Alexander--would be active with him in his business. One brother, Alfred, died in infancy (R. E. Dietz's first recollections revolve around this death), and three sisters--Mary Ann, Mary E., and Sophia--as one might expect, remained in the woman's sphere.¹⁴

Although the records are not specific, it is apparent that John, Jr., managed the tannery and soapworks, aided by his brothers. When the soapworks joined the tannery on Spring Street in 1810, things must have begun to get crowded, and John Joachim began to look

elsewhere to expand his tanning interests. In 1818, the year R. E. Dietz was born, he paid \$6,000 for 200 acres in Burlingham, Orange County, and established a larger tannery there, close to the stands of hemlock needed for processing hides. By 1820 he had built a dam for water power and a double house for his eldest sons, John, Jr., and Michael, who were to manage the new tannery (Fig. 1). It seems that John Joachim traded with John Jacob Astor, and imported hides from as far away as South America. Such patronage may indicate a certain degree of success for the Dietz business, as does the heady figure paid for the acreage.¹⁵ In other activities, John Dietz, Jr., seems to have been something of an inventor and blacksmith, receiving a U. S. patent in 1831 for an improvement in horseshoes.¹⁶

Thus, is it possible to assume that the family in which R. E. Dietz grew up was modestly prosperous, if not wealthy, and ran a successful tannery with strong commercial ties to New York merchants and entrepreneurs. His grandfather and father were both entrepreneurs themselves on a small scale, and while directly tied to their business through their own labor, they were their own bosses, and thus lived the roles of proprietor and worker simultaneously. They worked to enlarge and diversify the family operation, while at the same time playing the part of patron to their communities and participating in church activities (the Dietz family gave land for two churches in Burlingham). The strong family ties and connections with men of larger influence (Astor, Cooper) in the city indicate adherence to a pattern suggested by historian Paul Johnson, whereby a "rags-to-riches"

story is never the sole doing of an individual, but depends on his connections--family and community--as much as on his pluck and intelligence.¹⁷ Seen in the context of this family tradition, R. E. Dietz's subsequent career (and those of his siblings) begins to look like the logical outcome of a pattern begun in the eighteenth century.

His family having moved to Burlingham when he was two, Robert Edwin grew up amidst the bustling business of the rural tannery, and according to his diary took advantage of whatever public schooling was available to him. At the age of fifteen, in 1833, he was apprenticed to Cornelius McLean, a window-sash and door-frame maker in New York City, and a friend of John Joachim's.¹⁸ McLean is listed in Longworth's New York Directory of 1834-35, although R. E. Dietz is not, as he probably lived with McLean, following the eighteenth-century practice.¹⁹

Robert Edwin did not take to his apprenticeship, as he reports in his diary, for he "saw that there was no money in it [sashmaking, presumably]."²⁰ He reports that he then moved to being a clerk in a fishing-tackle shop (after only about six months, by his son's reckoning),²¹ which is probably the firm of Cornell Aulthouse & Co., in 1835. Robert Edwin's next three jobs were all clerical--at the Broadway hardware store of Daniel E. Delavan and Brothers; the sporting goods shop of Charles R. Taylor; and the gun department of Adam W. Spies's hardware store on Pearl Street. The directories of 1836-38 all corroborate these employers.²² There is some evidence that at least

one of these employers may have been a family friend, as Robert's eldest brother, William Henry, worked as a bookkeeper for Spies before joining the lamp business in the same capacity.²³ In addition, Spies's shop on Pearl Street would have been close to the site of the former Dietz (now Cooper) soapworks. There seems to have been no family living in New York City during this period, so it is likely that Robert lived with his employers or in a boarding house, as was typical practice for young, single men in the period.²⁴

During these restless years of his clerkship, Robert Edwin would certainly have acquired business acumen and experience, but this was not all he acquired. He reports in his diary that he made friends with three men: a doctor (surgeon and physician), a bank president, and a lawyer. Only the last is named, Benjamin D. Silliman--not one of the celebrated professors from Yale, but a lawyer in Brooklyn.²⁵ He claims that these three men helped him make his word "as good as [his] bond."²⁶ What he means by this is not immediately clear, beyond the interpretation that they gave him a sense of honor and integrity. It would also mean, however, that they eventually provided practical insight and/or financial backing which allowed him to maintain good credit and pay off his debts--both attributes which typify his business ventures throughout his lifetime.²⁷ Nonetheless, Robert Edwin's careful choice of influential friends in his early, pre-career days gives some idea of the ambitious young man who rebelled against the eighteenth-century artisan tradition in which he was raised.

It was also in these early years that Dietz first became interested in lighting. No doubt his work in hardware stores brought him in some contact with the lamps available at the time. He apparently first became acquainted with the work of Isiah Jennings in about 1834.²⁸ Jennings had recently developed "phosgene" or "spirit gas," a mixture of pure alcohol and distilled turpentine, which burned with no smoke or smell and had a brilliant white flame.²⁹ He patented an alcohol and turpentine lamp in 1836 (Fig. 2), and a spirit lamp the same year (U. S. patents 29 and 31). In 1836 Robert Edwin bought a German student lamp for his room, and experimented with various fuels, both mineral and animal. Apparently none of his variations improved on Jennings's bright flame.³⁰ That Robert Edwin chose Jennings's work from among the fifty-six lighting patents given in the 1831-40 period may simply be due to the fact that Jennings lived in New York (although he does not appear in the directories) and was hence known to him; perhaps he knew Jennings himself.³¹ Whether Dietz knew Jennings or not, the direction of his career derived from his knowledge of Jennings's interest.

Robert Edwin left New York in 1838, describing it a "vast poorhouse" due to the panic of 1837.³² He went to Mobile, Alabama, perhaps hoping to make his fortune, and worked in a hardware store there until the spring of 1840. Tiring of a clerk's life in Mobile, he set off for New Orleans, but caught malaria en route and finally returned home, dreams of glory faded.³³ He worked in the New York sheriff's office during the summer of 1840.³⁴

Robert Edwin was probably no more pleased with his sheriff's office position than he had been with his clerical posts previously, for there is no mention of it in his diary (which admittedly was edited by his seventy-two-year-old memory). His first recollection of 1840 is that, within a "few months" of his return from the South, he bought a small shop in Brooklyn with his savings and set up his first lamp and oil business. The shop, at Number 5 Hicks Street, was purchased from Charles Swain, who already had an oil business there. It was here Robert Edwin remained until sometime in 1843. He was just twenty-two when he started in business, with seven years of varied experience under his belt. His shop cleared a profit of \$600 the first year.³⁵

As partners in his venture (possibly after the first year), Robert Edwin took on his brother William Henry, as bookkeeper, and John A. Weed. Both men moved with Robert to Manhattan, probably in 1843, to open an enlarged lampworks at Number 13 John Street. This trio partnership gave the firm its first title--Dietz, Brother & Co.--which appears on almost all of the known marked lamps and girandoles by the firm.³⁶

William Henry first appears in the New York City register in 1843-44, as a clerk living with his elder brother, John G., at 38 (sometimes listed as 33) Vandewater Street. John G. was a street inspector, and not yet involved with the firm. Robert Edwin does not appear until the 1844-45 directory, and is listed as living with his

brothers, as is John Weed. Here also for the first time is Dietz, Brother & Co.³⁷ In the 1844-45 directory, and in that for 1845-46, the firm published a two-page advertisement, listing its wares and announcing its presence to the city. The 62 Fulton Street address given in the advertisement (Fig. 3) must have been an enlarged shop or warehouse opened at this time. Also at this time, Robert Edwin invented and manufactured the "genuine doric lamp," mentioned in the ad, although no record of a patent or details of what the lamp actually was survive.³⁸ It perhaps was the fruit of his earlier burner experiments inspired by Jennings's lamp.

The only billhead known to me from the company's lamp-making days is one dated 1845, in a private collection (Fig. 4).³⁹ The two lamps shown are taken from the directory ads of 1844 and 45. Both the advertisements and the billhead make it clear that Dietz not only manufactured but also dealt in lamp goods. One of the major puzzles in the history of the firm is determining what it made and what it purchased for assembly and resale from other manufacturers. It seems fairly clear that the firm did not produce any of its own glass, as the records of the census of manufactures indicate that it purchased its glass--in the form of globes and chimneys--as a raw material.⁴⁰ Further evidence of this is provided in a letter, dated August 29, 1859, from Samuel Dietz to Robert Edwin, in which Samuel complains that George (an uncle, only fifteen years Robert's senior) would not "go around and see the Glass Makers."⁴¹ It seems likely that they

cast their own brass ornaments, and spun their hollow brass pieces,⁴² but this too is not always certain, as will be demonstrated below.

Significant, too, is the fact that the 1845 billhead is for an order from Alderman Theodorus Vantine of the Corporation of the City of New York. The fairly plain and inexpensive stand or table lamps described⁴³ were apparently ordered for official use in Vantine's ninth ward offices. Vantine, a furrier, did not live nor work near the Dietz plant (located in the second ward). While it is not conclusive by any means, this fact implies that Dietz was already an important enough concern to attract city contracts. The lamp makers were not concentrated in the second ward, and Vantine could as easily have gone to any number of furnishers for the small number of lamps needed.⁴⁴ While there is no evidence that any further city accounts were given to the Dietz firm, this billhead suggests the importance which a firm might acquire if it were indeed, as Frederick Dietz maintained, the "first to manufacture lamp goods by steam power in quantities, in this country."⁴⁵

In 1846 Arasmus French was admitted to the firm, although probably as a foreman rather than a partner, as he is listed as a machinist in the directories of 1846-50. In May, Robert Edwin married Anna Hadwick of Brooklyn. He was twenty-eight.⁴⁶ Robert Edwin then left the bachelor-filled house on Vandewater Street and moved to Brooklyn, where he remained until 1847. Then he and his wife moved into a townhouse at 66 Beekman Street, which they rented from Philip

Hone, first for \$650, later for \$700 per year--a hefty sum in its time, and indicative also of Dietz's modest success (Fig. 5).⁴⁷

William Henry also left Vandewater Street in 1846 and moved into his own house on East 24th Street--no doubt a new development, and certainly far uptown in 1846.⁴⁸

A major shift occurred in the business as well, for in 1847 the firm acquired, in addition to its John Street plant, a nearby factory and shop at 139 William Street (variously listed as 132 and 134 as well, and eventually probably including all three addresses). This new extension was referred to in the directories as "The Washington Stores."⁴⁹ It seems also at this time (c. 1848) that Robert Edwin's younger brother Samuel opened a small lard oil business of his own, and may have operated as a subsidiary or supplier to his brothers' operation.⁵⁰ This business disappeared in 1850, possibly when Samuel went to San Francisco to open a retail lamp shop there.

The Products of Industry census of 1850 demonstrates the remarkable growth of Dietz, Brother & Co. in its first ten years. Described as lamp makers, the Dietz brothers had \$40,000 in capital invested in their enterprise. The annual expense for "raw materials" of \$47,000 included 80,000 pounds of brass (\$20,000); 2,000 dozen lamp globes and 4,000 dozen chimneys (\$12,000 and \$4,000 respectively); \$10,000 for some illegible material; and \$1,400 for 250 tons of coal. Their plant was powered by steam; they employed 100 male workers, paying them \$4,000 per month; and produced a yearly product worth

\$175,000.⁵¹ Of the four other lamp makers in the second ward in 1850, none produced more than \$5,000 in merchandise per year, giving a sense of Dietz's relative size and output. Of the sixty-eight lamp makers recorded as working in New York State in 1850, Dietz certainly must have been among the largest.⁵²

In an 1848 entry, the Dun credit ledgers cryptically rated the firm as good, although "not quite No.2." Whether this refers to a credit-rating code (it appears nowhere else) or to Dietz's status among lamp makers is unclear. What is clear is that by 1851 Dietz's credit was excellent and the firm was highly respected. Its profits had been improving every year since its founding, and by November 1851 it had "two or three stores," plus railroad stock and real estate holdings which, all-told, were estimated at over \$100,000.⁵³

So by 1850, at the age of thirty-two, Robert Edwin Dietz, who had recognized at the age of fifteen that there was no money in window sashes, had also recognized the future of lighting and was the proprietor of one of the largest lamp firms in the country. Although in 1853 Philadelphia lamp makers Cornelius and Baker had 700 workers, while Archer and Warner employed 225, with four Philadelphia factories between them, Dietz was only relatively small beside these giants.⁵⁴ Sam Bass Warner has written that by 1860 in Philadelphia the brass lamp industry had developed into a few large factories, and that the average number of people working in each was 75.4.⁵⁵ Clearly, in 1850, Dietz was larger than average, and considering the unusual size of

Cornelius and Archer and Warner, its relative size to the general pool of lamp makers was even greater.

To whom did R. E. Dietz sell his lamps? From the advertisements, and the billhead, it seems obvious that some sort of large retail trade was going on. An advertisement in the New York Herald Tribune of June 3, 1849, read:

Carcel or mechanical lamps--Just received from the best manufacturers at Paris, a large assortment of Carcel or mechanical Lamps, of the newest and richest patterns. Also a complete supply of French or Carcel Globes, Chimnies and Wicks for sale by Dietz, Bro. & Co., Washington Stores, 139 Wm.St.⁵⁶

This ad represents Dietz the importers and dealers in fashionable goods. A rather more complete ad in the weekly Home Journal, which ran continuously from June 3, 1848, through February 17, 1849, describes the other side of the Dietz offerings as well:

HALL LANTERNS AND CANDELABRAS, LAMPS, GIRANDOLES, for the Winter Trade--DIETZ, BROTHER & CO., 193(sic) William -Street, in the Washington Block, are manufacturing, and always have on hand a complete assortment of articles in their line, of the following descriptions, which they will sell at wholesale or retail, at Low Prices for cash. Improved Chemical Oil and Camphene Lamps. Solar Lamps, Gilt and Bronzed in great variety. Cornelius & Co's celebrated Patent Solar Lard Lamps. Girandoles, various patterns, gilt, silvered, or bronzed. Doric, Side Bracket, and Stand Camphene Lamps, Britannia Hand Lamps, Camphene Chandeliers, Suspending Solars, Bracket Solars, Solar Chandeliers. Patent Lard Hand Lamps. Superior Chemical Oil, Superior Camphene, Superior Burning Fluid, Renned Whale Oil, Pure Sperm Oil, Solar and Lard Oil, &c., &c.⁵⁷

This advertisement, which was always the largest lighting ad in the Journal, shows the variety both in product and in method which Dietz employed. The fact that they "imported" the patented Cornelius lard lamps indicates a link of some sort between the firms which becomes significant in my discussion of design. The dual retail-wholesale nature of their trade is also clear from this advertisement. This text was aimed at housewives as well as storekeepers, hotel managers, and city alderman. The scope and size of their advertisement imply the success and importance confirmed by the census and credit reports. Both the practical and the luxurious in lighting are represented, as well as the varied fluids possible to give light, from the expensive whale oil to the cheapest lard oil. Notable, too, is the absence of any mention of gas fixtures, even though Dietz is listed as making gas fixtures in both the 1850 and 1860 census reports.⁵⁸ It seems both from this and from the 1860 catalogue, that gas fixtures were a minor sideline to Dietz's major output, and that oil lamps were always Robert Edwin's major interest. This fact will help explain the firm's later status, development, and the ultimate direction of Robert Edwin's career.

The wholesale trade Dietz did was probably as large as its retail trade, and while, again, no conclusive records survive, some suggestive documents do. Carl Drepperd has illustrated an ad of William H. Starr of New York from 1846. In type of object as well as in terms of variety of product, Starr's advertisement relates closely to the Dietz ads of 1844 and 1845.⁵⁹ While this ad uses the term

manufacturer, William Starr also listed himself as a publisher in the 1847-48 directory, and the indication is that he was a dealer in, rather than a producer of lighting, an entrepreneur more than a manufacturer. More interesting still is the fact that his shop was at 67 Beekman Street--directly across from R. E. Dietz's house. There is no proof that Starr knew the Dietz brothers or their business, but the coincidence is suggestive. Furthermore, the descendant of Starr's shop--Starr, Fellows & Co.--of 74 Beekman Street, in its catalogue of 1857-58, offers a variety of girandole patterns which Dietz was also producing at the time, although it is listed as a "gas fixture" establishment in Trow's 1857 directory.⁶⁰ The assembling of wholesale-purchased girandole and lamp parts, furthermore, would rate a dealer as a manufacturer as well. At this point, William Starr was living in New London, Connecticut, and running his business from there--an absenteeism easier for a merchant than a manufacturer who is directly involved with his product.

Dietz's supposed invention, the doric lamp, also is mentioned in Starr's catalogue of 1857, and again in the Home Journal advertisement of J. Reilly, lamp manufacturer, who offers doric lamps at \$2 apiece.⁶¹ Reilly may well have made lamps, as he claims to, but he and Starr could easily have bought Dietz's doric lamps for retail sale, just as Dietz bought Cornelius's lard lamps.

More clearly distinct from the maker-retailer were the furnishers who flourished in New York in the 1840s and 50s. Among the over 900 billheads carefully saved by the descendants of Evert and

George Duyckinck, there are a series of lighting bills which date from refurbishing of the Duyckinck house in 1842-44, and again from 1851-55. In 1842 the Duyckincks bought a hall lantern and chain from Eder V. Haughwout, who is listed in Longworth's 1842 directory as a glass dealer. The Union Sketch Book and Merchants' Guide of 1860 lists the Haughwout firm as a dealer in lighting and fancy goods such as china and glass. The firm, from its beginning in 1832, was a "wareroom for lamps," not a manufacturer.⁶²

The Duyckincks also bought a lamp from Baldwin Gardiner in 1844, a gas pendant and gilt brackets from J. and I. Cox in 1851, and two ormolu chandeliers from Allcock and Allen in 1851. All of these firms were listed as furnishers in the Doggett's directories for their respective years, although all three specialized in silverware, comparing with the upper floors of Tiffany and Company today.

A large order for lighting was bought from J. Stouvenel & Co. in 1855 by the Duyckinck family. Joseph, Charles, and Francis Stouvenel are, indeed, listed as "lamps" and "gas fixtures" in the 1855 Doggett's directory, but their billhead shows them to deal in china and various fancy goods as well, giving them the status of merchant rather than manufacturer.⁶³

It seems logical, then, that such retail outlets for fancy goods would have been a major source of business for Dietz, Brother & Co., if not in fact their largest source.

By 1850 the Dietz firm's reputation was good enough to prompt P. T. Barnum to hire the company to light the Castle Garden debut of Jenny Lind, the "Swedish Nightingale," who was being paid \$1,000 per performance by the great showman. As a period illustration shows, solar lamps and chandeliers, burning spermaceti oil, were used rather than gas, as might be expected for a public spectacle of this importance (Fig. 6).

Apparently pleased with their work, Barnum subsequently hired the Dietz firm to "refit, with elaborate gas fixtures, his great American Museum that stood on the southwest corner of Broadway and Ann Street."⁶⁵ Once again, the gas-fixture enterprise seems to have been a minor sideline. Barnum gave them the commission because they had worked for him before, not because they specialized in gas-fitting. In Wilson's Business Directory of 1851-58 Dietz is listed under lamps and chandeliers, which is a separately indexed category from gas-fixture makers.

It is surprising, then, that as large and successful as the Dietz firm was in 1851, there was no trace of it at all in the records of the 1851 Crystal Palace Exhibition in London. Cornelius and Company was there, and, in fact, won a prize for its ormolu and crystal chandelier from among the 150 entries in "Iron and General Hardware."⁶⁶ It seems that Cornelius was the only American lighting firm at the fair, perhaps due to its size and artistic reknown, for no mention of any other prominent American lighting firm appears.

The early fifties were traumatic for the firm, although its past good history seems to have smoothed out the rougher places and perhaps even insured its survival. A George Dietz appears briefly as a lamp dealer in Doggett's and Trow's directories, which may, in fact, be the Uncle George mentioned earlier, who was associated with the firm on and off. Robert Edwin and his family moved their permanent address to a farm in Hempstead, Long Island, while Robert himself is listed back in his brother John's Vandewater Street house by 1853.⁶⁷

The business boom demonstrated by the census of 1850 apparently caused Dietz, Brother & Co. to overstock and overextend its credit to customers. In June of 1852, the brothers suspended operation, finding themselves \$80,000 in debt, the banks suddenly tightening up their pursestrings. The Dun credit ledgers treat the firm very gently here, blaming the banks more than the Dietz brothers, and expressing confidence that the debts would be paid in full. By May of 1853, the firm had paid off its creditors, reopened, and was reported to be doing very well. It was employing sixty workers in the plant--a forty percent cutback from its previous size--and was dealing in cash only.⁶⁸

That things were looking up by late 1852 is indicated by the fact that Robert Edwin received two patents within a year after the firm failed: the first, Number 539, granted December 28, 1852, was a girandole design, probably of the Jenny Lind pattern, although the

patent is now lost. The second, Number 555, granted April 26, 1853, was for a "Lajos Kossuth" girandole pattern, which was apparently never produced, and will be discussed subsequently.⁶⁹ Thus the suspension seems to have been a financial "catching one's breath" before continuing on a less heady scale.

The next few years were good ones for the firm. In 1853 it advertised in the prestigious American Portrait Gallery,⁷⁰ and had a display in the New York Crystal Palace Exhibition, "The Industry of All Nations." Needless to say, Cornelius and Baker were in the exhibition as well. Aside from Dietz, however, there were only two other lamp makers from New York, H. Dardonville, a manufacturer and importer, and C. Ducreux, maker of "French mechanical [Carcel] lamps."⁷¹

Dietz's display was described in the official catalogue as "chandeliers for gas, oil, &c; brackets and bracket lamps; hall lanterns; mantel ornaments in gilt, bronze, and enamel."⁷² The Cornelius display, which was across the court around which the lighting and hardware were arranged, received a similar description. The mantel ornaments referred to in both displays are clearly girandoles, which suggest the basic function of these devices to be largely decorative. A broader discussion of this will follow in Part II. Intriguing is Dietz's inclusion of an enamel finish for the mantel ornaments--indicating perhaps that the figures were colored. No such examples are known to me, and this may have been an artistic conceit

of Robert Edwin's, done especially for the exhibition. Both Cornelius and Dietz were listed as manufacturers, and presumably made most of the items displayed in their booths.

Typically, Cornelius received most of the attention at the Crystal Palace. The one other mention of Dietz, in Richards's A Day in the New York Crystal Palace, is more a transition than a description:

Seidhoff's atmospheric lamp presents a novel appearance; and close around and beyond it are the lamps and chandeliers of DIETZ AND CO.(...) upon the south side, CORNELIUS, BAKER & CO. of Philadelphia make a most brilliant display of their lamps and gas fixtures.(...)⁷³

Richards goes on at length, extolling Cornelius and Baker's works. Clearly, the prizewinner from London's fair is the American hero. Equally significant, however, is the fact that only Dietz and Cornelius are mentioned at all in this guide, perhaps giving a clue as to Dietz's importance in America's lighting industry, despite its relative insignificance in the brilliance of Cornelius's glory. Again notable is the absence of a reference to gas fixtures in regard to Dietz. Cornelius was not just king of lighting, but the king of gas lighting. This difference in semantics will take on an added significance farther on.

In the catalogue of the Crystal Palace Exhibition edited by Benjamin Silliman and C. R. Goodrich, Cornelius again is highly praised, and is the only American lighting firm to even be recorded.⁷⁴ In Whitworth and Wallis's study on American industry of 1854, Archer and

Warner, and H. N. Hooper of Boston are mentioned in addition to Cornelius, but Dietz makes no appearance.⁷⁵ Finally, in the Report of the British Commissioners on the Crystal Palace, George Wallis's report on hardware and lighting discusses Cornelius at length, but disregards Dietz entirely.⁷⁶ Evidently Cornelius was popular but they may have had an excellent public relations liason as well, which might account for their blanket importance in terms of surviving written descriptions.

When Burr and Hyde of Hartford published a book on American industry in 1872, they cribbed the section on lighting virtually verbatim from the 1854 commissioners' report. In the absence of surviving material of a like nature on the Dietz firm itself, it seems appropriate to attempt to give some idea of how the Dietz plant may have worked, based on the description of the Cornelius plant's operation.⁷⁷ While the scale of the two operations was vastly different, the methods were probably identical.

The design for a cast piece was first worked out on paper, then transformed into a wax model. That R. E. Dietz may have designed his own girandole figures is suggested by the patents he received for such designs (Fig. 18), as noted above. On the other hand, he may have employed a designer for this purpose. Dietz, Brother & Co. may not have divided its work space into discrete "rooms" as did Cornelius, but the steps could have been the same. Next a brass mold was made, and then finished by a chaser to sharpen detail. This mold

could then be used to cast any number of pieces to make up a desired product. Small pieces were apparently sand-cast, by pouring molten metal into a hollow formed by a dummy piece pressed into a special casting sand. Finally the castings were "edged up," or filed to remove burrs and rough edges. Soldering came next, followed by a final "edging" to disguise the solder joints. The assembled pieces were then "pickled" in an acid bath, and the high points of the design were burnished to give a matte-and-glossy texture to the surface. Electroplating with silver, gold, or bronze--which Dietz also advertised--was an option at this point. Finally the finished pieces were lacquered to prevent tarnish.⁷⁸

As noted earlier, hollow brass fonts were spun over a wooden chuck on a lathe, a process which Dietz employed through at least 1870. The fact that no mention is made of any glass works indicates that Cornelius, as well as Dietz, bought all their glass from outside sources, and, it seems, sometimes the same ones.⁷⁹

The nature of the brass casting process made it easy for one firm to copy another's designs, and this seems to have been quite common (see note 79). However, with some exceptions, it would have been as easy, and probably cheaper, for one firm to copy another as for firms to buy pre-cast pieces from each other. The research for this paper indicates that while lamp designs moved easily from one firm to another, girandole designs seem to remain "faithful" to their designers, whether they are patented or not. The exception to this is

a popular girandole design by Hooper of Boston, which appears in its 1858 catalogue at the Essex Institute.⁸⁰ The identical figures, an Elizabethan man and woman, appear as girandoles with the Dietz, Brother & Co. mark on them (Fig. 13). The mark, however, is very thin and looks "typed" onto the piece--i.e., cold-stamped; while the typical Dietz mark is softer, as if stamped while the piece is still warm, or cast as a piece with the object.⁸¹ This suggests that Dietz purchased these pieces from Hooper and resold them with the Dietz mark. None of the other Hooper designs resemble any Dietz patterns, nor have any otherwise-marked examples of the Elizabethan couple come to my attention.

By March of 1854, Dun accountants reported that Dietz, Brother & Co. was turning out a good profit again and had steady business and good credit. There appear to have been unspecified financial worries that followed the firm, but they seem to relate not to the operation of the company per se, but rather to old creditors who were not satisfied after the first suspension. The firm was doing well enough by September 1855 to purchase the William Street factory building, which it had apparently been renting, for \$10,600. It seems clear from this major outlay of capital that the brothers felt financially secure enough to invest in their future.

Troubles began anew in the fall of 1855, however, as former creditors began to file lawsuits to reclaim more from the now-prosperous firm. This was coupled with losses suffered privately by the brothers

in the stock market, which made it impossible for them either to fight or pay off the suits. The firm closed again in late 1855 to avoid the lawsuits, and by June 1856, when it reappears in the Dun reports, it had become Dietz and Company, a title it would keep until the final schism.⁸²

The new firm included John G. Dietz (who had moved to Harlem and given up his job as street inspector, leaving Robert Edwin in the Vandewater Street house) and Charles H. Dietz, a mysterious figure who does not appear on the family tree, but may have been a cousin, perhaps a son of George Dietz. Also in 1855, James M. and Michael A. Dietz were listed in Trow's directory as working with the firm, but James was not made a partner until February 1859.⁸³ At this point, the firm was deemed as a good credit risk again, having small capital, but making good money.

Between 1856 and 1859 the factory on William Street was enlarged greatly at the rear, although the address does not change.⁸⁴ One probable reason for this growth was the patenting, by Michael A. Dietz, of two variations of a flat-wick kerosene burner in 1859.⁸⁵

Coal oil, or kerosene, had first been introduced in 1856. Its three types were boghead from Scotland, Albertine from Nova Scotia, and Grahamite from West Virginia and Kentucky.⁸⁶ While Michael's patents are dated in 1859, the March 8 patent was antedated upon issue to September 8, 1858, apparently voiding all attempts to pirate the design.⁸⁷ Both patents were reissued by 1860. This burner was being

manufactured by Dietz as early as January 1858, and thus was developed most likely in late 1857, substantiating the claim that Dietz and Company produced the first successful flat-wick kerosene burner in the country.⁸⁸

The Dun accountants reported in January of 1858 that the firm was making a new kerosene lamp, "and such is the demand that they are unable to execute their [orders], tho'they have 30 men constantly engaged." The burners sold for \$7 per dozen, costing \$3 per dozen, prompting the comment that it "will doubtless make money by this."⁸⁹

The later Dietz kerosene burner patent (May 1859) was a slight improvement on the earlier, more important one, whereby the chimney band and flame deflector were manufactured as one piece, to avoid the problems caused by extreme heat on the soldered variation (Fig. 7a).⁹⁰ The earlier patent of March 1859 was an entirely new design for a burner, which allowed for an even flame and brighter light by means of an even flow of air through the burning chamber. It included the winding stem mechanism for raising and lowering the wick, and prevented over-rapid oil evaporation as well as smoke and odor (Fig. 7b).⁹¹ It was, indeed, a major breakthrough in the development of economical domestic lighting.

Michael Dietz, youngest of the brothers, had joined the firm as a partner by February 1859, no doubt because of his burner's importance. The Dun reports expressed their "confidence in the integrity of the men," and in November of 1860 reported that the firm

had supposedly cleared a profit for the year of \$30,000.⁹² The rough years were at last behind the Dietz brothers, and their inventive character had put them in the vanguard of the lighting industry once again.

William H. Dietz had left the firm by 1857, perhaps due to ill health. He died of typhoid fever in 1860. By 1858 only Charles and James were living in New York itself, according to the directories. Michael was living in Brooklyn, and Robert Edwin was in Hempstead. His diary of 1861 gives the Hempstead address, as well as the Park Hotel in Manhattan, which was probably his pied-à-terre for the work week. John G. was living in Harlem, probably in his late parents' house (John, Jr., died in 1854, Sophia in 1856), and Samuel had certainly set up in San Francisco by 1859.

The only surviving business letter from Dietz and Company's tenure is from Samuel to Robert Edwin, written from San Francisco in August 1859. Robert mentions sending a letter to Samuel by Pony Express in his 1861 diary. Samuel had set up a wholesale/retail lamp operation as a part of Dietz and Company, probably sometime in the mid-fifties. In 1859 some excitement arose over a Boston firm by the name of Hale, whose wicks and chimneys Samuel retailed in California along with Dietz products. Hale, it seems, had been attempting to modify the patented Dietz burner and market it under his own name. According to Samuel, he was simultaneously starting a smear campaign against Dietz, and planning to exhibit his modified burner at the 1859 state

fair in San Francisco. Robert was asked to get a patent infringement injunction to stop Hale. Apparently this plan worked, for there is no further record of any trouble.⁹³

In the rough city of San Francisco in 1859, Dietz and Company sold chiefly the less expensive glass lamps, which it ordered from various firms. Samuel mentions "glass and small Stand lamps,... Careletons as well as the Boston assortment...[a] great variety of columned, Heavy Glass, and Careleton variety of little stand Lamps..." It is not known which Boston firms supplied Dietz and Company with glass lamps, but certainly the Boston and Sandwich and New England Glass Companies are possibilities. A surviving Dietz lamp, with the pre-1855 company name molded into the glass font, is of a type commonly attributed to Sandwich (Fig. 27a).⁹⁴ The "columned" and "Heavy Glass" lamps mentioned in the excerpt may indicate a more elaborate and expensive type of lamp, but the letter clearly emphasized the more practical variety. According to the Dun reports, Dietz was doing a large California trade by 1862.⁹⁵

The early sixties were a time of expansion and optimism for the Dietz brothers. In 1860 they opened a branch in London at 4 St. Paul's Buildings. Michael moved to London in that year to manage this part of the business and would remain in England for the rest of his life. This same year, according to Frederick Dietz, "Dietz and Company then issued their first fine large forty-page Lamp Catalogue, 12 by 18 inches, illustrated with wood cuts and printed in colors, a veritable work of art."⁹⁶

One copy of this catalogue, noted earlier, survives in the company archives; Frederick's appraisal is no exaggeration. Printed in a full range of colors and metallic gold, it is the finest (indeed only) such color catalogue of American lighting products known to me. Certainly expensive to produce, as printing with colored plates was more complex and costly than hand-coloring or chromolithography, this catalogue expresses the success and optimism of the firm at the time. Furthermore, the striking range of designs for lamps and girandoles has proved to be an invaluable tool for the identification of possible Dietz products from the 1855 to 1875 period. The title page records, for the first time, the legend "Established 1840," creating the precedent, maintained to this day, of temporal continuity and pride in the firm's age.

With few exceptions, as in the case of patented designs, all the known labeled Dietz pieces used in this study bear the Dietz, Brother & Co. name, putting them in the 1840-55 period. Nearly all the unmarked pieces with Dietz family histories are identifiable in the catalogue of 1860, as are the unmarked attributed pieces. The implication is that Dietz and Company did not generally mark its products between 1855 and 1875, unless it was protecting a patented design.⁹⁷ Such an absence of labeling could also indicate that Dietz was either well-known enough, or at least sure enough of its market, that the identifying mark was no longer necessary.

Both the Census of Manufactures of 1860 and the individualized Products of Industry census provide information which helps to analyze the position of Dietz and Company at its twentieth anniversary. In 1860 the Dietz firm had \$30,000 capital invested in the business--substantially less than in 1850, but not surprising given its troubles in the early fifties. It spent \$40,000 per year on brass, copper, and glass; employed fifty men; paid them \$2,000 per month; and manufactured an annual product worth \$100,000. Allowing for inflation, which would affect the product and raw material values, the company seems to have been exactly half the size it was in 1850. This, coupled with the fact that business was booming, according to the Dun reports, implies that Dietz knew its market and had pulled back from the massive operation that nearly drove it under in 1852. It should be noted that the workers earned exactly what they had in 1850, which is to say an average of \$40 per month, inflation or not.⁹⁸

The individual form for the Dietz firm does not specify power source, but Robert Edwin records in his diary of 1864 that on March 3 he paid Ferry(?) and Hoffman \$650 for a boiler for the factory on William Street, and that it cost him \$34.35 per week to run. So, apparently steam was still the power source for the company.⁹⁹

The National Census of Manufactures for 1860 allows the comparison of the lighting industries among the major cities. Boston's entries do not include any facet of the lighting industry, which may suggest that a firm such as Hooper or Shaw of Boston in fact saw itself

as a brass-founder and not a lighting manufacturer, as Hooper's 1858 catalogue itself indicates (cf. also note 75). In both New York and Philadelphia, lighting manufacturers were categorized as either "Lamps" ("Lamps and Lanterns," in New York), or "Gas Fixtures," indicating two semi-distinct industrial spheres.¹⁰⁰

Philadelphia had six gas-fixture establishments to New York's eighteen, but its capital investment was \$975,000 to New York's \$232,350. The rest of the comparison is as follows:

	<u>Philadelphia</u>	<u>New York</u>
Annual Cost of Raw Materials	\$409,040	\$200,390
Number of Employees	913	578
Annual Cost of Wages	\$317,940	\$198,516
Annual Value of Product	\$1,425,000	\$635,950 ¹⁰¹

There is no doubt that Philadelphia was the leader in the gas-fixture industry, with Cornelius and Archer and Warner probably dominating the scene to the near exclusion of all others. If Dietz were placed on this scale, its significance would dwindle dramatically, in the overall picture.

It is my contention, however, that despite Dietz's occasional forays into gas lighting and despite the inclusion of the term "gas fixtures" among its products in the 1850 and 1860 census reports, the major thrust of the firm was by this time coal oil lamps and lanterns, and the Dietz brothers saw the company in this way. The 1860 catalogue

shows almost no gas fixtures among its scores of oil fixtures, and Dietz advertisements of the period are likewise devoid of references to gas (cf. following pages). With this in mind, the lamp-making industry of Philadelphia and New York can be profitably compared.

There were five oil lamp establishments in Philadelphia and eight in New York, the former's total capital investment being \$48,000 to New York's \$88,000. The rest of the comparison looks like this:

Annual Cost of Raw Materials	Philadelphia	New York	(Dietz)
	\$61,400	\$81,647	(\$40,000)
Number of Employees	101 (25% female)	102 (all male)	(50--all male)
Annual Cost of Wages	\$29,760	\$46,916	(\$24,000)
Annual Value of Product	\$114,000	\$226,360	(\$100,000) ¹⁰²

Set in this context, New York's status as well as Dietz's changes dramatically. New York's lamp industry is consistently fifty percent larger than Philadelphia's, while its annual output is nearly twice Philadelphia's. The high female content of Philadelphia's work force would have been paid less and, presumably, performed less heavy work. Dietz and Company, compared at the right, made up nearly half the New York industry, and was certainly the largest single oil lamp producer in the country at the time. The vast importance of urban gas lighting in the mid-nineteenth century created a huge industry and dwarfed oil lamp production. Although the oil lamp industry was thus cast into shadow, it, nonetheless, retained its small-scale importance.

The gaslight industry dealt with public buildings, grand housing developments, and the lighting of city streets, while kerosene was the industry of domestic and small, pragmatic lighting. Similarly, modern highway construction firms and those specializing in driveways are closely related but vastly different in both output and scale.

The company's steady course continued through the 1860s. On May 12, 1863, Samuel Dietz and Timothy Raymond received a patent (Number 38,537) on another improved kerosene burner, the original of which survives in the present company archives. In 1864 Michael Dietz paid a visit from London and an advertisement appeared in The Grocer, a London newspaper. This ad is entirely devoted to cheap and practical oil lighting, and included an ancestor of the tubular lantern. This lantern (American-made, although it is not clear by whom), called the "Excelsior Patent Convex Reflector Lantern," expresses Robert Edwin's early interest in such a lighting form, and prefigures his ultimate direction.¹⁰³

An advertisement from the New England Business Directory of 1865 shows a far more decorative line of lamps and includes several which appear in the 1860 catalogue. The layout of the advertisement implies a price range from affordable to luxurious; the cheapest lamps flank the lineup while the most expensive are at the center.¹⁰⁴ An identical selection of lamps was used in an 1860 ad illustrated by Carl Drepperd, further confirming the color catalogue's date.¹⁰⁵ In these advertisements, Dietz describes itself as selling "Petroleum Oil

Lamps," and as a "Coal Oil and Lamp Emporium." The absence of any mention of gas fixtures reaffirms the theory that Dietz's main thrust was oil lighting.

A form letter dated 1866, sent to a client in England from the London office, accompanied a remarkable series of photographs of Dietz oil lamps (Figs. 8a-d). Many are glass lamps, probably both of English and American manufacture. The letter grandly volunteers that Dietz and Company can fill orders quickly, as it offers "upwards of a thousand patterns."¹⁰⁶ This boast could well be true, as the firm no doubt combined the metal lamps it produced in New York with glass lamps and parts from American firms, and English-made glass lamps, to produce a tremendous design variety. Several of the lamps pictured also appear in the 1860 catalogue and the advertisements, including the figural bronze examples.

The English branch, then, was a great success. It was listed in Trow's and Wilson's New York City directories, with Michael Dietz as its head, from 1865 through 1867, when the firm began its second and final metamorphosis.

Through 1869, Dietz and Company appears as usual in the directories, occasionally with a short blurb expressing its line of business.¹⁰⁷ Then, in the 1870-71 Wilson's directory, along with Dietz and Company, appears the entry: "Dietz, R.E., 4 College Place, mfr. of the Tabular(sic) and Vesta patent Lanterns."¹⁰⁸ What has happened?

In January of 1869, Robert, Michael, and Samuel officially withdrew from Dietz and Company, leaving James to run what was termed "one of the oldest firms in this line of trade; doing a large and prosperous business in San Francisco."¹⁰⁹ Michael apparently maintained the London branch, leaving Robert free with capital to work on his ideas for lanterns. Subsequent history suggests that, while officially separate, only the London branch was really independent of the family ties, or considered a distinct company.

In September 1868, Robert Edwin had formed a partnership to produce kerosene lanterns with A. G. Smith. Smith had been a salesman for Archer, Pancoast & Co., which started manufacturing a new tubular lantern on license from its inventor, John H. Irwin, in 1867. Somehow Smith got hold of a patent and the Eastern States license for producing this lantern, which was the basis for Dietz and Smith. This was the reason Robert Edwin sold out in January 1869, as he claimed to have put up eighty percent of the cash for the partnership.¹¹⁰ Just one year later, in August 1869, Dietz and Smith was dissolved, leaving Robert Edwin financially pinched, but continuing on his own, "having purchased all right, title, interest, and Patents of A.G. Smith."¹¹¹ Ironically, Dietz and Smith is not listed in Trow's directory until 1870, after it had already dissolved. It may well be that Dietz's strong family and community ties kept his young business from foundering. Thus, at the age of fifty-two, Robert E. Dietz had started a new enterprise--or simply branched out from an old one.

Why Robert Edwin felt he had to switch places to make his lanterns is unclear. Perhaps he was discouraged by the smallness of the oil lamp industry compared with that of gaslight. Or perhaps he knew of Edison's work of the late 1860s and saw the potential importance of electric lighting.¹¹² Thus he may have realized that the future of kerosene was in a utilitarian, not a decorative, direction. Certainly he saw the great importance of the tubular lantern itself, and that may have been enough. In any case, he certainly seemed to see his new business as a division or offshoot of Dietz and Company, rather than a separate entity.

The Products of Industry census for 1870 showed that, while Dun describes Dietz and Company as highly profitable in 1869 under James's direction, it had grown still smaller.¹¹³ The \$60,000 capital investment was large, but probably inflated. The firm used \$10,000 per year in raw materials (glass, copper, brass, spelter), and employed twenty-five male workers, paying them \$20,000 per year (they had gotten a raise to \$17 per week). The value of the annual product was \$50,000. The figures are healthy, and demonstrate a successful business (and most likely do not include Michael's branch in London, which may already have been separate) but probably Robert's selling out either caused or was caused by the shrinking of the firm. He might have moved to lanterns because of a dwindling market, or the firm may have shrunk because of reduced capital due to paying off Robert for his share. Something changes drastically at this period, for the factory

is listed in the census report as hand-powered. Perhaps the smaller scale reduced the need for steam production.

Dietz and Company appears in Wilson's directory in 1871, and in Trow's in 1872. Meanwhile, Robert Edwin's lantern business grows. By 1872 he is advertising in the directories as he did in 1844, but now offering lanterns, hand lamps, chains, and "Catchemalive mouse traps,"¹¹⁴ which he patented. He has taken on the line of simple and cheap lamps formerly sold by Dietz and Company, just at the time when the old lamp business is fading out. By 1874 there is no more mention of Dietz and Company in the directories, and Robert has published his first lantern catalogue.¹¹⁵

On September 2, 1875, R. E. Dietz placed a large advertisement in the new Crockery and Glass Journal, which ran for several months and included a woodcut of his large factory on Fulton Street in New York.¹¹⁶ On September 25 of that year, Dun reports Dietz and Company as closed, leaving R. E. Dietz lanterns as its sole inheritor. It is at this time that all the records from the lamp firm were probably destroyed or, more likely, sent to Michael Dietz in London, where he would manage the former branch office until his death in 1883, under the name of Dietz, Davis and Company.¹¹⁷

But Robert E. Dietz never expressed any feeling of discontinuity. His first catalogue of lanterns in 1874 boasts the legend "Established 1840," as did the 1860 Dietz and Company catalogue. Clearly the two

firms were, in Robert Edwin's eyes, one and the same, or simply evolutionary stages in the cycle of the Dietz enterprises.

Between 1880 and 1886, Dun reports that Dietz's estimated personal capital investment in the lantern works rose from \$30,000 to \$200,000, and his credit and reputation in the business world grew accordingly, until all entries concerning his firm began "in usual high standing."¹¹⁸ By 1888 his two eldest sons were in the business, one year after the firm was officially incorporated as the R. E. Dietz Company. In 1897, the year of his death at the age of seventy-nine, Robert Edwin Dietz, the sash-maker's apprentice and leather-tanner's son, earned an income of over \$200,000, and left an estate of over \$650,000 in stock and real estate.

If Robert Edwin saw the varied career of his company as the growth of one firm, then it was he who lent it cohesiveness and unity. Raised in a borderline artisan-proprietor family, with an ambitious father and grandfather who were, nonetheless, limited by their eighteenth-century backgrounds, Robert E. Dietz grew up amidst the wave of boundlessness which swept through American society in the early nineteenth century, and raised the lowly up far too rapidly in some men's eyes. Robert Edwin seems to have felt the restlessness of the era, and the need to break out of the life prepared for him by tradition.¹¹⁹ He wanted to make it big in America.

This restlessness persisted throughout his career, causing him to branch out, and ultimately to break into an area of lighting which was but little explored, perhaps to avoid what he saw as a dead end.

Yet R. E. Dietz played by the rules, unknowingly acknowledging the concept of "natural aristocracy" extolled by Alexander Hamilton and his peers in the 1780s. He made powerful friends, used family ties, and gradually acquired wealth, to rise steadily to a position of prominence in his city. He followed the careful and orderly social mobility recommended by those who had proposed the Constitution,¹²⁰ and was every inch the "venturous conservative" who changed constantly while avoiding drastic social change. He was not a meteoric Vanderbilt or a Rockefeller. He was not a genius-inventor like Thomas Edison. He was a dabbler in invention, a successful businessman and entrepreneur of some insight and acumen. He was, in other words, quite typical of the nineteenth-century, self-made man. His story, exactly like that of no other American entrepreneur, is at the same time similar to all of them.

NOTES

Part I

¹Collection of the author.

²Moses King, Notable New Yorkers of 1896-1899 (New York, 1899), p. 468.

³Frederick Dietz, A Leaf From the Past; Dietz Then and Now (New York, 1913), cited hereafter as Leaf.

⁴Leaf, p. 102. The catalogue itself is not dated, but based on an 1859 patent date on the St. John girandoles (Figs. 17a-d), which appear in it, this seems likely.

⁵Marvin Meyers, The Jacksonian Persuasion; Politics and Belief (Stanford, 1957), pp. 92-107.

⁶Dun Credit Ledgers, Baker Library of Business Administration, Harvard University, entry for December 22, 1880. Hereafter cited as Dun.

⁷Leaf, p. 2.

⁸Ibid., p. 3

⁹Manuscript diary of R. E. Dietz (1818-1897), written between 1890 and 1892, archives of the R. E. Dietz Company, Syracuse, New York. Cited hereafter as Diary.

¹⁰James Riker, Revised History of Harlem (City of New York); Its Origins and Early Annals (New York, 1904), p. 610. John G. Dietz married Cornelia Frances Meyer and lived in Harlem. John Dietz, Jr., married a Harlem Dutch woman as well, Sophia Meinell. The family owned Harlem land until the twentieth century.

¹¹Dietz family genealogy, archives of the R. E. Dietz Company.

¹²Inventory of Robert Affleck, 1799, Joseph Downs Manuscript Collection, Winterthur Museum, Number 54.37.61, p. 11.

¹³Leaf, pp. 10-12.

¹⁴Diary, and genealogy.

¹⁵Mildred Parker Seese, "The Dietzes of Burlingham," in Old Orange Houses (Middletown, New York, 1941), p. 58, and Appendix III.

¹⁶Leaf, p. 23.

¹⁷Paul E. Johnson, A Shopkeepers' Millenium (New York, 1978), pp. 28-32 and passim.

¹⁸Leaf, p. 60.

¹⁹Thomas Longworth, Longworth's City Directory, 1834-35 (New York, 1834), p. 461. Cited hereafter as Longworth.

²⁰Diary, p. 28, verso.

²¹Leaf, p. 60.

²²Longworth, 1836-37, pp. 204, 645; 1837-38, p. 578; Diary, p. 47, verso, p. 48, recto; Leaf, p. 76. Cornell Aulthause is not listed in the directories.

²³Diary, p. 47, recto.

²⁴Johnson, op.cit., pp. 43-48.

²⁵Longworth, 1835-36, p. 594.

²⁶Diary, p. 36, recto.

²⁷Dun, entries for 1848-86.

²⁸Leaf, pp. 60-61.

²⁹Diary, p. 36, recto.

³⁰Leaf, pp. 61, 74.

³¹Howard S. Hubbard, A Complete Checklist of Household Lights Patented in the United States, 1792-1862, supplement to Vol. XXXIII, number 3, The Rushlight, August 1967.

³²Diary, p. 28, verso.

³³Ibid., p. 29, recto.

³⁴Leaf, p. 77.

³⁵Diary, p. 29, verso, p. 48, verso, and Leaf, p. 77. Frederick Dietz gives the original shop's address as 62 Fulton Street, which he derived from the 1844 directory advertisement (Fig. 3). The Brooklyn Directory of 1843-44 lists 5 Hicks Street as the Dietz lamp store (p. 58).

³⁶Diary, p. 48, verso.

³⁷John Doggett, Doggett's New York City Directory (New York), 1843-44, 1844-45. Cited hereafter as Doggett, without pagination.

³⁸Leaf, p. 77.

³⁹Collection of Professor Leo Herschkowitz, Long Island, New York.

⁴⁰Seventh United States Census, The Products of Industry, 1850, New York County, New York State, Second Ward; Eighth United States Census, The Products of Industry, 1860, New York County, New York State, Second Ward; and Ninth United States Census, The Products of Industry, 1870, New York County, New York State, Second Ward. All courtesy of New York State Library, Albany.

⁴¹R. E. Dietz Company archives.

⁴²The 1870 Products of Industry census reported that Dietz had eighteen lathes, which in a lamp factory would seem to be useful only for spinning up brass fands or hollow chandelier parts. See also note 77.

⁴³A discussion of lamp prices will follow in Part II.

⁴⁴cf. following notes on Duyckinck Family Papers, note 63.

⁴⁵Leaf, p. 82.

⁴⁶Ibid.

⁴⁷Ibid., p. 84, and Diary, p. 48, verso.

⁴⁸Doggett, 1846-47.

⁴⁹Ibid., 1847-48.

⁵⁰Ibid., 1848-49.

⁵¹See note 40.

⁵²I looked only at the annual product values for these four other firms. The sixty-eight number is from "Occupations of the Male

Inhabitants," in The Seventh Census of the United States, 1850 (Washington, 1853), p. lxxii. Rather than indicating the number of males employed in lamp-making factories, I assume this to mean the number of proprietors of such lampworks. A worker would probably be considered a machinist. Wilson's Business Directory of 1851 lists sixty-two lamp and chandelier establishments (p. 182).

⁵³Dun, entries for August 1848; May 1851; November 1851.

⁵⁴George Wallis, "Special Report," New York Industrial Exhibition, General Report of the British Commissioners (London, 1854), pp. 48-49.

⁵⁵Sam Bass Warner, Jr., The Private City (Philadelphia, 1977), pp. 71, 77.

⁵⁶"One Hundred Years Ago," New York Herald Tribune, June 3, 1949, no p.

⁵⁷Home Journal (New York), Saturday, June 3, 1848, p. 4.

⁵⁸Both 1850 and 1860 Products of Industry census reports list Dietz as "lamps and gas fixtures," while 1870 gives only lamps. See note 40.

⁵⁹Carl W. Drepperd, Victorian, the Cinderella of Antiques (Garden City, 1950), p. 107.

⁶⁰Starr, Fellows & Co., Pictorial Catalogue of Lamps, Gas Fixtures, &c. (New York, 1857), courtesy of the Cooper-Hewitt Museum, New York.

⁶¹Home Journal, p. 3 (see note 57).

⁶²J. C. Gobright, The Union Sketch Book and Merchants' Guide (New York, 1860), p. 37.

⁶³The Duyckinck Family Papers, Box Number 41, personal accounts of Evert (1845-53) and George (1844-63) Duyckinck, New York Public Library, Archives and Manuscripts.

⁶⁴Leaf, p. 88.

⁶⁵Ibid., p. 90.

⁶⁶The Great Exhibition of the Industry of All Nations (London, 1851), pp. xxxiii-xxxv.

⁶⁷Doggett, 1853-54.

⁶⁸Dun, entries for June 1852; May 1853.

⁶⁹Hubbard, op.cit., unpagued.

⁷⁰Lura Woodside Watkins, "Robert E. Dietz: From Burning Fluid to Kerosene," The Rushlight, Vol. XXII, number 14, p. 15. The article is simply a condensation of Leaf, which she had discovered in an old bookstore. No outside research was done.

⁷¹Official Catalogue of the New York Exhibition of the Industry of All Nations, first revised edition (New York, 1853), pp. 77-81.

⁷²Ibid., p. 78.

⁷³William C. Richards, A Day in The New York Crystal Palace (New York, 1853), p. 37.

⁷⁴Benjamin Silliman and C. R. Goodrich, eds., The World of Art and Industry (New York, 1854), pp. 157-58.

⁷⁵Whitworth and Wallis, comps., The Industry of the United States.... (London and New York, 1854), p. 112.

⁷⁶op.cit., see note 54.

⁷⁷J. B. Burr and Hyde, The Great Industries of the United States (Hartford, 1872), pp. 307-16.

⁷⁸Save for this last operation, the process is very close to eighteenth-century brass and silver casting techniques.

⁷⁹A glass lamp with a labeled brass font by Cornelius in a private collection bears a striking resemblance to Dietz designs from the 1860 catalogue. A discussion of this appears in Part II. The brass castings are also identical to designs in marked Dietz pieces of the same period.

⁸⁰Henry N. Hooper & Company (Boston, 1858), p. 11, number 666, and p. 15, number 665 (Microfilm, Winterthur Museum, Rare Book Room).

⁸¹There are two pairs known to me: one in the collection of Mr. and Mrs. John S. Dietz, Cazenovia, New York; the other in the collection of Philip Curtis of the Newark (N. J.) Museum. On both the marks are identical in content and character. See Fig. 13.

⁸²Dun, entries for March 1854; September 1855; and July 1855. The last, recorded as 7-'55, is probably an error, as it is between the September 1855 and June 1856, and thus is probably meant to read 10-'55, or October.

⁸³Ibid., entries for June 1856; February 1859.

⁸⁴Leaf, p. 94.

⁸⁵May 3, 1859, Number 23,832, and March 8, 1859, Number 23,160. From Hubbard, op.cit., and M. D. Leggett, comp., General Index of Patents, U. S. Patent Office, 1790-1873, Vol. I (Washington, 1874).

⁸⁶Leaf, p. 94.

⁸⁷Hubbard, op.cit.

⁸⁸Leaf, p. 95.

⁸⁹Dun, entry for January 1858.

⁹⁰Leggett, op.cit., p. 783, Number 802.

⁹¹Courtesy U. S. Patent Office, see Appendix.

⁹²Dun, entry for February 1859; November 1860.

⁹³Letter from Samuel Dietz to R. E. Dietz, August 29, 1859. Dietz Company Archives.

⁹⁴Collection of Mr. and Mrs. J. S. Dietz, Cazenovia, New York.

⁹⁵Dun, entry for September 1862.

⁹⁶Leaf, p. 102.

⁹⁷Such as the St. John girandoles and the Uncle Tom and Eva girandoles, both marked "DIETZ PATENT." See Part II.

⁹⁸See note 40.

⁹⁹R. E. Dietz, manuscript diary, 1864, archives of R. E. Dietz Company.

¹⁰⁰"Table Number 1, Manufactures, by Counties, 1860," in Manufactures of the United States in 1860; Compiled From the Original Return of the Eighth Census of the United States (Washington, 1865), pp. 245-47 (Boston); pp. 379-84 (New York City); pp. 522-27 (Philadelphia).

¹⁰¹Ibid., p. 381 (New York) and p. 524 (Philadelphia).

¹⁰²Ibid., p. 524 (Philadelphia) and p. 382 (New York).

¹⁰³Advertisement from The Grocer London, October 1, 1864, in The Rushlight, Vol. XXXIII, number 2, p. 4 (1483). The lantern appears on plate 38 of the 1860 catalogue.

¹⁰⁴The New England Business Directory (Boston, 1865), pp. 23, 382.

¹⁰⁵Carl W. Drepperd, Pioneer America, Its First Three Centuries (Garden City, 1949), p. 210.

¹⁰⁶R. E. Dietz Company Archives.

¹⁰⁷Trow's Directory (New York, 1869), "Dietz & Co., mfrs., importers, and dealers in all articles pertaining to the lamp trade."

¹⁰⁸Wilson's Business Directory (New York, 1870-71), p. 316.

¹⁰⁹Dun, entry for January 1869.

¹¹⁰Leaf, pp. 104-105.

¹¹¹From a flyer sent out to his customers, dated August 5, 1869. R. E. Dietz Company Archives. Also Dun, entry for July 1869.

¹¹²Dictionary of American Biography (New York, 1944), Vol. 21, supplement I, pp. 278-79.

¹¹³Dun, entry for January 1869. See note 40.

¹¹⁴Trow's Directory (New York, 1872-73), p. 71. One of these mousetraps is in the Henry Ford Museum and Greenfield Village.

¹¹⁵R. E. Dietz Company Archives.

¹¹⁶The Crockery and Glass Journal, Vol. 2, number 35 (September 2, 1875), p. 16.

¹¹⁷Leaf, p. 102.

¹¹⁸Dun, entries for May, August, November, December 1880; January 1881; March and September 1886.

¹¹⁹John Higham, From Boundlessness to Consolidation: The Transformation of American Culture, 1848-60 (Ann Arbor, 1969), pp. 7-10.

¹²⁰Gordon Wood, "The Worthy Against the Licentious," in The Creation of The American Republic (Chapel Hill, 1969), pp. 476-c. 482.

PART II: The Product

As with any aspect of the decorative or useful arts, terminology for lighting devices is problematic. Collectors' terminology and jargon have often replaced period terms. A brief discussion will help clarify some nineteenth-century lighting terminology.

The origin of one form, the girandole (OED gives the proper spelling as "girondole," but this paper will use the popular nineteenth-century spelling), is particularly difficult to pinpoint.

Henry Havard, who authored the massive Dictionnaire de L'Ameublement et de la Décoration, places the origins of the term "girandole" in the late seventeenth century where the word "girandolles" is used to refer to pyramidal candelabra used at a royal fête by Louis XIV. The term, derived from the term for an Italian form of fireworks, seems to have implied clustered candles and included crystal prisms as early as 1677. It was a hybrid, tabletop-model chandelier, intended to bedazzle. The "girandolle" was an object of great luxury under the reigns of Louis XIV, XV, and XVI. Wall sconces were referred to as "demi-girandoles," since their two-dimensional form was seen as being half of a normal girandole.¹ Carl Drepperd has defined it as a convex round mirror in a gilt frame, having candle arms

at each side, from which may hang crystal prisms. He cites a 1766 ad for the Philadelphia carvers Bernard and Jugiez.² The relationship between this form of girandole and the popular nineteenth-century variety can be seen in the candle arms and prisms (and in the expensive gilding, for that matter).

Thomas Chippendale, in his Director of 1754, depicts a "gerandole" as an ornate, carved, wall-mounted candleholder;³ and Thomas Johnson, a London carver, included among his One Hundred and Fifty New Designs of 1761 "Girandoles and Brackets...."⁴ Charles Percier and Pierre Fontaine, decorators to Napoleon and creators of the empire style, distinguished a "girandole" from a "chandelier" (candlestick) and a "lustre" (chandelier),⁵ which raises the question as to where a girandole was used--on a wall? on a mantelpiece?

British designers of the early nineteenth century, George Smith (1805) and Thomas Hope (1807), concurred with Percier's definition, depicting girandoles as wall-mounted candleholders, and kept them distinct from "girandole mirrors," which had no candle branches.⁶ Hope went further, making "girandole" and "sconce" synonymous.⁷

In America, the Finlay brothers of Baltimore were painting fancy furniture and advertising "Brackets, Girandoles, and Trypods..." in the 1805 Federal Gazette and Baltimore Daily Advertiser. This could as easily refer to the girandole mirror or the wall sconce, but probably not the candelabrum form of the mid-nineteenth century.⁸

In 1847, Henry Whitaker, a London cabinetmaker, published a design for an overmantel mirror. Set low on either side of the mirror are three-branched candle arms hung with flat crystal prisms. This might well be the missing link, the intermediate form between the wall sconce and the mantel candelabrum, the stage right before the prised candle arms became freestanding mantel ornaments. Unfortunately, Whitaker does not label his designs, and what he called this piece is unknown.⁹

By 1844 in America, the term girandole had come to mean the gilt bronze or brass candelabrum with a marble plinth now associated with the term. Dietz, Brother & Co. offered girandoles in the 1844-45 city directory advertisement, as noted earlier, while Cornelius in Philadelphia and Shaw in Boston were producing such pieces by 1849.¹⁰

The function of girandoles appears to have been largely decorative. In the two lighting advertisements from the 1849 Home Journal of New York discussed in Part I, there are references to "mantel ornaments," which certainly signify prised girandoles.¹¹ They could be finished either with gold, silver, bronze (also referred to as olive), or left plain (ormolu). Sometimes girandoles adopted special forms, such as the droop-armed "piano forte" model pictured by H. N. Hooper in 1858, which brought the light closer to the keyboard.¹² The association with the piano is another clue as to the luxurious context given to girandoles.

Lamps provide a broader range of terminological material. Dietz seems never to have manufactured sinumbra or astral lamps--both of which are period terms--but did deal with argand-burner solar lamps before turning to kerosene burners in 1858. The term "sideboard lamp," used in the 1820s,¹³ coincides with the "Dining Room Table Lamp" pictured in Dietz and Company's 1860 catalogue,¹⁴ and provides a clue as to possible uses of oil lamps in the home. Lamps generally were intended for use on "tables, sideboards, chimney pieces, counters, etc., etc.," and graphic evidence demonstrates this use in America.¹⁵

The most prevalent term seems to have been "stand lamp," which referred to any partly metal oil lamp, regardless of size or expense, meant to sit on a table. Samuel Dietz used this term in his 1859 letter to his brother Robert Edwin,¹⁶ and the 1860 catalogue added "tripod lamp," referring to the actual form of the metal base.¹⁷ "Stand lamp" was used by British lamp manufacturers as early as 1812,¹⁸ and probably referred to any lamp which did not have the ring-shaped font of the sinumbra or astral varieties.

Warner, Miskey and Merrill of New York referred to solar-type lamps as "tea lamps" in 1850,¹⁹ possibly indicating their place on a tea table, while small, all-glass lamps were usually called "glass lamps," by Dietz as well as by other makers.²⁰

The "French Lantern" appears to have been a form of hanging light with a mechanical movement to raise and lower the lamp. This was a variation on the standard "lantern" or "hall lantern" which

had survived from the eighteenth century. A lantern with sides that tapered inward was, appropriately, called by Dietz a "taper lantern."²¹

Terms that are deceptive are "pillar" and "pedestal," both of which may have derived from early neoclassical forms of lighting, but which survived long beyond the classical style itself. The Dietz catalogue of 1860 shows "Bohemian glass pillars," "plate glass pillars," and "porcelain and china pillars."²² All these references are to the shaft of the lamp below the font and above the foot, and indicate little about the form of the pillar itself. The "rich gilt Fluted Pillars" offered on plate 6 of the Dietz catalogue are rococo in form, and more resemble stalks of celery than classical columns. The "plate glass" referred to above meant "plated" or overlay-colored glass, which was often cut, and was a luxurious addition to a lamp.²³ Such verbal bases for stylistic labeling, then, should be used with caution.

"Lamp pedestals" displayed by Dietz and Company were often candlestick-like bases to which a font was attached. Again, there is no classical style implied, nor does the term indicate the presence or absence of a pillar, as a pedestal could probably refer to a foot or plinth as well.²⁴

Aside from the glass globes or shades, Dietz also offered "paper shades," both in the 1860 catalogue (plate 26) and in the 1866 photographs (see Fig. 8a). Paper shades also show up in period

illustration.²⁵ Archer and Warner describe these paper shades, fitted on a wire frame, as being used on lamps for reading or sewing, where the diffuse light of a frosted globe was less desirable.²⁶

What then did lamps mean to the people who owned and used them? Was there some status value in owning a fine lamp or a set of girandoles? Relative prices and verbal as well as graphic evidence seem to indicate that the answer is yes.

The tubular-wick solar lamps prevalent before 1858 were ideally meant to burn sperm oil, which sold at mid-century for \$2.25 per gallon retail, \$1.25 at wholesale. Camphene, though highly explosive, was available at about one-third the cost of whale oil. The equally inexpensive varieties of burning fluid, using mixtures of turpentine and alcohol, were also highly volatile and dangerous to use.²⁷ Lard oil, the cheapest fuel, smoked and smelled, but was safe to use. Until the advent of kerosene, these were the choices, and the alternative to expensive candles was expensive oil, or dangerous fluids, or smelly lard.

Kerosene's invention by Abraham Gesner in 1846, and Michael Dietz's patented flat-wick burner of 1858 dramatically changed domestic lighting.²⁸ Between 1841 and 1860, over 450 lighting-related patents were granted in the United States, and 185 more were added by 1862.²⁹ The whale-oil solar lamp was easily converted to kerosene by simply changing the burner, and advertisements indicate that such conversion was common practice.³⁰ Significant is the fact that a fine

solar lamp was important enough to be "recycled" and adapted to the new technology. This indicates a value to the owner beyond mere function. A lamp may have had a social meaning--status, taste, refinement--to its owners. This quality is what historical archaeologist James Deetz has termed "socio-technic function."³¹

Despite the great popularity of gas and the large scale of the gas lighting industry, oil lamps were used in conjunction with gas into the late nineteenth century. The Duyckinck family of New York bought both oil and gas fixtures from local furnishers in the 1840s and 50s;³² the Byers house in Denver showed gas and kerosene fixtures in its main rooms in 1875.³³ A similar combination appears in Edith Wharton's 1905 novel The House of Mirth, which is set in the 1880s. Mrs. Peniston's old-fashioned but lavish drawing room is lit by a gas chandelier as well as by oil lamps set about the room.³⁴ Thus it is evident that kerosene and oil lamps could be at home in the gaslit houses of the well-to-do. But how well-to-do did one have to be to own an oil lamp?

To give lamp prices proper relative context, a brief discussion of wages is necessary, as well as some mention of relative cost of goods in the mid-nineteenth century. According to Stanley Lebergott, in 1850 ninety-six percent of the American workforce was agricultural or laboring. Carpenters earned \$1.50 per day (\$9 for a six-day week), and cotton manufacturing employees 76¢ per day (\$4.56 per six-day week). The average, non-farm labor wage was 90¢ per day (\$5.40 per six-day week).³⁵

In 1850 in Philadelphia, as a study by Page Talbott shows, workers with skills related to the furniture trade earned from \$17.32 to \$37.50 per month, with an average monthly wage of \$28.27 (or approximately \$7.07 per week).³⁶

Dietz, Brother & Co., as noted above, paid its workers \$10 per week from 1850 to 1860, which is fairly high in relation to the above averages.

Furniture prices of the period will also serve to give a scale on which to measure lamps' values. A rosewood Belter parlor chair in 1855 might bring \$45 new.³⁷ On the auction block in 1858, where even nearly-new and stylish furniture brought lower prices, one could buy a Baudoine rosewood single bed for \$47.50, and its bureau for \$44, while an eight-piece Baudoine parlor suite in rosewood sold for \$310--less than \$39 per piece (two sofas, two armchairs, four side chairs).³⁸ The prices fetched by the William Irving auction house in 1856 for rosewood furniture in a house on Union Square ranged from \$61 for a carved sofa in crimson satin damask to \$16 apiece for the matching "medallion parlor chairs" to \$19.50 for the rosewood center table with its marble top.³⁹

For clues as to lighting prices, similar sources are useful. In furnishing a house in New Hampshire in 1852, the owner paid W. F. Shaw of Boston \$54.23 for "chandeliers, etc.," and \$18 for "candelabras" (which clearly refers to girandoles). This same account includes \$23 to Bigelow and Kennard for six silver forks.⁴⁰

An invoice record of 1849 lists several purchases from Cornelius & Company: a four-light chandelier for \$25, a two-light (gas) pendant for \$6, and single-light (gas) brackets at \$2 apiece.⁴¹ An 1850 inventory of a store gives the price of three camphene lamps as \$13, or \$4.33 each,⁴² while an 1845 invoice lists a number of cheap lamps at under \$1 each.⁴³

On the more expensive end, the gas fixtures in a New York house in 1858 brought from \$61 apiece (having cost \$200 new) for the most elegant chandeliers, to \$23 for the simpler variety (\$50 or \$75 when new).⁴⁴

The only price I have found for girandole sets (with the exception of the unspecific Shaw reference above) is in the 1857 catalogue of Starr, Fellows & Co. of New York, who probably purchased its girandoles from Dietz, and retailed them at \$7.77 for two single-light and a central three-light piece, complete with prisms.⁴⁵

The most complete listing of new lamp prices is from S. E. Southland's 1859 catalogue of the "Jones improved patent lamps," which were made in Philadelphia.⁴⁶ The glass lamps were the cheapest, ranging from \$1 to \$8 for the "engraved flint glass" model. Next came the smaller stand lamps, with "White Marble 3 1/2 inch Square Base, Brass Column." These ranged from \$10 for the "Plain Flint Glass Font" to \$18 for the white, blue, or "Ruby plated and cut fancy glass Fount." These latter were nine-and-one-half inches high, to the glass lamps' five-and-one-half to eight-inch range. The top of the

line, at thirteen inches, were the "Double White Marble, 5 inch Heavy Square Base, Fluted Brass Col'm" lamps, ranging from \$26.50 with the plain fonts to \$36 for those with the plated and cut fonts. The Dietz lamps in the 1860 catalogue would have been close in price range to the Southland selection, and it is probable that some of the most elaborate lamps (such as Figs. 24, 38) would have topped the price list at \$50 or more, because of their elegant metal figures or cased and gilt glass pillars. With the addition of an elegant cut and frosted globe and a set of prisms, the prices would very likely have risen even more.

So it is apparent that by 1860 a fine parlor lamp was as valuable as an elegant new rosewood chair (or even a larger piece, at discounted auction prices). With workers earning between \$4 and \$10 per week, it seems equally clear that lamps were available to the mass (ninety-six percent) of Americans only on the very cheapest level. The tin or brass hand lamp, and the small glass night lamps, which cost a dollar or two, would have been the sort of oil light for the working classes. This is not to say that a worker could not have aspired to or saved up for a fine lamp, but the frequency with which a laboring family would have spent a month's wages on a fancy stand lamp cannot have been too high, just as would have been the frequency of laboring class purchases of Belter or Baudoine furniture--used or not.

By price alone, elegant lamps were a luxury item, perceived as belonging to the middle-to-upper classes. Graphic evidence seems to bear this out.

Girandoles were also objects of luxury, although the price quoted above would have placed them within the reach of more of the working class. To throw the relative value of lamps and girandoles into relief, one can assume a present-day worker's salary at about \$1,000 per month.⁴⁷ On this scale, a girandole worth \$7.77 in 1858 would be worth about a week's wages--or \$250 in today's terms. A fine lamp, costing \$36 to \$50 would be closer to a full month's wages in 1850--or \$1,000 in modern terms. Even the relatively inexpensive girandole set was costly to the laboring classes.

The relative lower expense of a girandole set may have prompted the comment by Whitworth and Wallis of London in 1854 that girandoles were "chiefly purchased by the artisan class as a chimney ornament."⁴⁸ This may give credence to the form's widespread popularity in workers' homes, but it does not express the equally wide popularity they must have had in prosperous homes (the large quantity of girandoles surviving in antebellum mansions in the South attests further to this in an impressionistic way). Archer and Warner certainly considered girandoles to be dressy pieces and included them among ornaments of "better quality," unlike the cheap tin candlesticks they described as being available in hardware stores. Archer and Warner went on to state that since oil lamps were cheaper than candles

to use, that "the manufacture of girandoles ha[d] become comparatively insignificant."⁴⁹ This implies the purely sociotechnic function of the girandole, as well as the pervasive importance of the lamp as light source and decoration.

Starr, Fellows & Co. advertised its girandole assortment as being "used for mantel ornaments," and constituting a "fine finish to a well-furnished room."⁵⁰ Again, the implication of elegance and luxury--sociotechnic function--is evident.

To discover whether surviving pictorial evidence supported the above suppositions, I defined two categories of nineteenth-century interior views--"prosperous interiors" and "humble interiors." A prosperous interior had to display a level of elegance and a consciousness of style on the part of the inhabitants high enough to place them in the middle-to-upper-class range. The question of "cheap finery" did not pose a real problem as the depiction of lower-class-yet-fancy interiors does not occur until the era of mass media--i.e., interior photography--which is beyond the period of the study.

The humble interior was, on the other hand, devoid of such overt style consciousness, and implied a socioeconomic status for the inhabitant of working or lower class. This was a more problematic category, as humble interiors may also be kitchen or "back" areas in fine houses, and the perception of the poor is not always unbiased in popular literature. As a result, the humble interior cannot truly reflect the way the poorer classes lived. On the other hand, I feel

that the prosperous interiors fairly accurately reflect, if not the actuality, at least the accepted norm for the genteel American's home. Thus whether or not a Currier and Ives print showing a lamp in an elegant parlor is actually true, it represents the belief that such a lamp was appropriate to such a parlor.

This study used 105 images of interior views from the period 1820-75. They included paintings, prints, and book illustrations. There were seventy-seven prosperous interiors, while only twenty-eight were in the humble category.

Only eighteen percent of the humble interiors showed lamps, and in all those cases the lamps were of the cheapest variety. Seventy-five percent of the prosperous interiors showed lamps. Thirty-six percent of the prosperous interiors showed candle devices, and these, with two exceptions, were all of the most elegant, socio-technic type, such as candelabra or girandoles. The two exceptions were in "back" situations (i.e., a bedside chamberstick) and one of these had a religious overtone. Eighty-five percent of the humble interiors showed cheap candlesticks as their only light source.

Gas lighting appeared in prosperous, urban settings only, including elegant commercial establishments. Gas lighting appeared in only fifteen percent of the lighting images, and only twenty-one percent of the prosperous interiors.

The most prevalent use of the lamp in these images was on a central table, which was frequently draped, and accompanied by books or some elegant pastime like needlework. Forty-one percent of the prosperous interiors showed some variation on this center-table-and-lamp iconography. Also important to the center-table image was the family group--parents and/or senior relatives and children. In almost every case where a center table occurred, the lamp was on the table, and in over half of these cases there was a family group as well.

The prevalence of this lamp-and-table image spans the century, occurring most heavily in the 1840s, but appearing steadily from the 1820s through the 1870s. The lamp was obviously seen as a prosperous, elegant prop, and signaled education and refinement on the part of its owners.⁵¹

Two literary images from the period underscore the power of the lamp image described above. The first, from John Ware's Home Life of 1866 reads:

What a glee is there in young voices and
 young hearts when the lamps are lighted!
 How eagerly they gather about the table,
 wheeling up father's chair, bringing out
 mother's basket, each settling to his
 place, happy, busy, and joyous; while the
 talk, the story, the book, the game,
 employ the sparkling hours, and sow the seed
 of never-ending, ever-pure delight. ...
 Since we have banished that sacred thing,
 'the fireplace,' we have only the centre-
 table and the lamp as the holy centre of

our homes. Never may that central lamp
be dimmed, nor at that table one seat of
parent or of child vainly waiting to be
filled!⁵²

While this is clearly normative literature, it is growing out of an existing trend, not trying to force the lamp on the public. The lamp and center table are already prevalent, and Ware interprets this through his own normative perspective.

Less effusive, and probably more reliable, is Nathaniel Hawthorne's description of his own parlor, from the introduction to The Scarlet Letter of 1850:

...the little domestic scenery of the well-known apartment; the chairs, with each its own individuality; the centre-table, sustaining a workbasket, a volume or two, and an extinguished lamp...⁵³

Thus the oil lamp was the staple prop of the genteel classes; and with the equally genteel girandole, it was the mainstay of the Dietz brothers' enterprise until 1875.

That mid-nineteenth-century lighting devices reflected the cultural outlook of America becomes obvious when the sources of their designs are studied. The remarkable range of designs in the Dietz and Company catalogue shows two facets of American taste: it was highly up-to-date, and it was simultaneously highly conservative. Again arises the paradox of the venturesome conservative, but this time seen in terms of American taste. The 1860 catalogue suggests that while some Americans were eager to adopt the newest styles, there were others equally eager to retain the old styles. Dietz was, it should

be remembered, the leading oil-lamp maker in the country in 1860. Its catalogue, therefore, ought to be an indication of prevailing taste trends. Furthermore, Robert Dietz's own venturesome-conservative taste may be reflected in the lamps he chose to offer as much as is the taste of his customers.

Where did the design inspirations for the girandole figures come from? Generally speaking, the sources, like the girandoles themselves, were popular and middle-class. Literature, current events, and nature all played their part in providing subject matter for the girandole designer. The designs of R. E. Dietz and his competitors represented an awareness and a sensitivity to popular subjects which included the sentimental as well as the ideological.

Figural girandoles seem to have been a uniquely American phenomenon. Whitworth and Wallis, whose report has been cited above, remarked in 1854 that "the choice of subject for the vertical portion is often ludicrously inappropriate; yet the sale of these things is said to be immense, from their showy character and low price."⁵⁴ Aside from the condescension in tone, the authors make it clear that the girandole is not an object familiar to them at home. This is not to deny the existence of European figural lighting devices, just this relatively inexpensive middle-class variation. Furthermore, the authors seem to criticize the showy nature of girandoles, pointing to this aspect of American taste with a disapproving British finger. What, then, was the force behind the success of this form of lighting

in America? The answer is most likely the same force that had ruled American arts from colonial days: the pursuit of refinement and culture through material possessions.

The popularity of "French art bronzes" was such between 1840 and 1870 that to own one "was the aim of even modest householders," and the possession of one was a mark of culture. As a surrogate for an actual art bronze, or as an addition to an art bronze, the girandole and the bronze-based figural lamp suited admirably.

If the idea of a statue appealed to the American homemaker, so did the accessories to the girandole and lamp. The cut crystal prisms and marble bases added notes of opulence and luxury to artistic lighting devices which, no doubt, made them doubly desirable. By 1851 American-made cut glass equaled Britain's, and the American taste for it--on the table and in lighting--boomed in this period. Marble, so long the stone of monarchs and eastern potentates, became widely accessible through steam-driven cutting equipment, and added tremendous cachet to furniture, floors, and lighting.⁵⁵ Thus as an object a girandole or lamp could embody both artistic and material import--implying luxury and cultivation, decorative art and "high" art, in one fell swoop. It would follow that the subjects for such dual-purpose objects would need to have appropriate associations to give them sufficient *éclat*. In the romantic atmosphere of the nineteenth century, such associations were easy to find.

The surviving objects and illustrated designs for girandoles by Dietz and its competitors indicate both the variety of popular imagery and the pervasiveness of those images. What follows is a categoric discussion of girandole designs discovered during my research, accompanied with suggestions as to sources for those designs.

GIRANDOLES

I. Floral and Classical

Flowers and foliage were perhaps the most pervasive and ubiquitous elements in lighting design, for they usually accompanied figural elements in addition to standing alone. The giftbook, the mid-nineteenth-century counterpart of the "coffee table book" of today, usually devoted a major part of its decoration and content to floral or foliate subjects. The cover designs on two such antebellum annuals, The American Book of Beauty (1850) and A Gift for my Mother (1853), show rococo floral bowers overarching classical urns.⁵⁶ Foliate bowers like this form a significant part of all but two of the eleven Dietz girandole designs of 1860 (Figs. 9a-f), and flowers are present in those two exceptions. The Floral Keepsake of c. 1850 shows a similar design as its frontispiece, but here the floral bower, in the shape of a gothic arch, surrounds a basket of flowers.⁵⁷

The urn may have suggested classical antiquity or simply "culture" in a single object, but up through the Civil War flowers had an encyclopedic array of associations. Such associations may not have

been familiar to every purchaser, but there is little doubt that the importance of floral meaning was a commonplace at mid-century. Flowers could be seen as immortal, a manifestation of God's hand on Earth and symbols of eternal life (especially when planted or placed on graves). They were "Nature's eternal jewels." Flowers represented both the fragile human body and its immortal soul, which might die, yet be eternally alive--perishable, but undying. As flowers were useless, so their beauty was that much more significant. They exemplified the quality of pure goodness without which the world would be meaningless.⁵⁸

On a less religious plane, there were numerous giftbooks published which included some discussion of the language of flowers. John B. Newman's Beauties of Flora (1848) studied flowers from a botanical as well as symbolic point of view. Colored plates were often, as in Newman's book, lavishly interspersed throughout the text. In his segment on "flowers and their language," Newman reiterated the eternal life symbolism of flowers, and pointed out two highly popular blossoms and their meanings: the daisy, as "innocence," and the moss rose as symbolic of love, being closely linked with Venus and Cupid. Such diverse meanings as elegance (acacia rose), grief (marigold), and grace (hundred-leaved rose) could also be seen in flowers.⁵⁹

Elsewhere, in F. E. Hume's Principles of Ornamental Art (c. 1860), the palm branch signified Christian faith (by virtue of its associations with Christ), and the vine carried a heavy chain of

meaning, from Bacchus's pagan revelry to God's benevolence and the gifts of plenty. Bunches of grapes, Hume asserted, might allude to the wine of the Holy Sacrament. Lilies signified virginity and purity, as did the rose, sometimes linked with the Virgin Mary.⁶⁰

Of course, the specific symbolism was not always known to the owner of a floral lighting device; nor is it likely that the above plants, most of which appear on examples of Dietz lighting, were intended to mean anything specific. Nonetheless, the social import of flowers was omnipresent. Flower arranging had become a highly elaborate and structured skill. Vase arrangements and bouquets alike were designed along carefully planned lines, to achieve the goals of "formality and solidity" desired by the lady of breeding. Right through the 1870s roses, japonicas, and camellias were the most costly and retained the highest status as a drawing room flower, beyond any symbolic content.⁶¹ Whether their expense created a fashion, or their fashionableness made them expensive is unclear.

I know of two pairs of Dietz girandoles, one marked, and one unmarked, which take the form of a basket of flowers, out of which grow morning-glory vines to support the three candle cups. The marked pair, not intended to have prisms, bears the stamp of Dietz, Brother & Co., indicating a date of 1840-55. The unmarked set, identical save for prisms and a bronze finish, is probably from the 1855 to 1875 period, when Dietz discontinued marking its products.⁶² Despite the

detail of these pieces (Figs. 10a-c), which makes the flowers quite recognizable, it is likely that only the general significance of the flowers would have been known, or intended, by the owner and maker.

A modification of the purely floral patterns, also related to the giftbook designs, is that of a classical urn with flowers and foliage. One example known to me is a marked three-light girandole, identical to design 29, "Vase Pattern," in the 1860 Dietz catalogue (Fig. 9a). Another example is in the Garvan Collection at the Yale University Art Gallery and is unmarked, but the vase is identical to that on the marked example. The piece also has the scrolled candle arms which appear on design 155 in the Dietz catalogue (Fig. 9d), and on another marked Dietz example (Fig. 17a). The marked example also bears the 1840-55 Dietz mark.⁶³ A triple-flower motif at the top of the marked example seems to be peculiar to the Dietz firm. It is seen in the 1860 catalogue (Fig. 9a), and on another marked Dietz set (Fig. 15b). This floral motif serves as the basis for attribution to Dietz of a pair of floral sconces in the Ford Museum⁶⁴ and a figural pair of girandoles depicting an unknown woman now in the Morris-Jumel House in New York.⁶⁵ H. N. Hooper also offered a vase pattern in 1858, but it is entirely different from the Dietz version.⁶⁶

The use of foliate candle arms "growing" out of a figural piece would perhaps have bothered Messrs. Whitworth and Wallis, but it did not upset the American consumer. Often in American sculpture of the

nineteenth century, foliage was used to finish the bases of busts, giving the impression that the head and shoulders were growing from the leafage. The girandole simply reversed this arrangement.⁶⁷

II. Eastern Exotica

Aside from floral associations, the key word in mid-nineteenth-century girandole design must have been "exotic." The giftbooks of the period show a remarkable fascination with the far and near East, and pictures of "Turks" are common. The frontispiece of S. G. Goodrich's A Winter Wreath of Summer Flowers (1855) shows two "Turkish" girls framed in a window trellised with roses. Moreover, all of the stories in this volume concern faraway times and places, and the colored illustrations are replete with exotic costumes and landscapes.⁶⁸ Similar usage of Turkish or Persian girls fill the pages of Caleb Wright's Pictorial Scrapbook of c. 1850,⁶⁹ and the Manual of the Arts For Young People of 1857.⁷⁰

Male Turks were also popular, and images of Sultans often accompany their feminine counterparts in the giftbooks.⁷¹ Male Turkish figures were used as cigar-store totems to advertise Turkish tobacco, and were, apparently, quite a common sight.⁷²

Turkish and Byzantine decorative motifs were available to the public, as in F. E. Hume's Principles of Ornamental Art.⁷³ Although Eastern architecture never really caught on in America (A. J. Downing, for example, condemned it⁷⁴), some examples were built and achieved

wide notoriety, such as P. T. Barnum's oriental villa in Bridgeport, Connecticut, called "Iranistan." Caleb Wright illustrated this celebrated house in his giftbook of c. 1850.⁷⁵

The Dietz, Brother & Co. ad of 1845 (Fig. 3) shows at its base a set of girandoles, which seem to be in the form of a Persian girl. Such a pattern does exist, and the two different sets known to me are attributed to Dietz on this basis. The pattern of the known girandoles (Fig. 11) is the opposite of the illustration in the directory ad, which can be explained by the printer's transposition of the image to the printing plate without reversing it. Patricia Smith, former registrar of Sleepy Hollow Restorations, where one of these Persian girl sets is located, first made this connection, and it seems to make sense.⁷⁶ Furthermore, the scrolled candle branches which occur on a three-light version of the Persian girl pattern are identical to those on a marked Dietz piece of a different pattern (Fig. 17a), and on figure 155 of the 1860 catalogue (Fig. 9d).⁷⁷

It could be that Dietz was buying its girandoles of this pattern from another firm, but it is equally likely that the Persian girl here is its own, even though no marked examples have come to light.

III. Fauna

Animals seem to have been another popular theme, and several species occur in girandoles. Birds were frequent topics for romantic

literature in the giftbooks of the era,⁷⁸ and squirrels, apparently popular as pets, appear in similar settings.⁷⁹ Dietz and Company offered "Birds" and "Squirrels" as two patterns in its 1860 girandole selection (Figs. 9a and 9c). Unmarked examples of both the "Birds" and "Squirrels" girandoles are in the Marianne Moore Room of the Rosenbach Museum in Philadelphia. They were in Miss Moore's collection in New York City, and came to the Rosenbach Museum after her death. These girandoles, three-light versions with prisms, have identical bases to the catalogue illustrations, and have the scrolled candle branches noted above on marked and unmarked Dietz pieces.

William Gerdtz has said that only two animals, the dog and the deer, ever obtained any importance in American sculpture.⁸⁰ Their popularity in lighting was probably equally high. Dogs had a heroic quality, and represented fidelity as well.⁸¹ The stag, however, held the top position, which F. E. Hume suggested was due to the early Christian associations given it.⁸² Images of deer occurred as weathervanes and in chalkware by the early nineteenth century, putting this animal in the vanguard of American decorative imagery.⁸³ The image of the deer probably gained associative power under two British influences, however: the wildlife scenes of Sir Edwin Landseer, and the hunting passion of Landseer's royal patron, Albert, Prince Consort to the young Queen Victoria.

Landseer came to Scotland for the first time in 1824 and made the deer a favorite theme in his work. When Victoria and Albert made

Balmoral their Scottish seat, Landseer illustrated the hunting parties favored by the Prince. Victoria herself was said to sketch deer in the park at Balmoral. By the 1840s iron stags as lawn ornaments were already popular, as were engravings of Landseer's celebrated "The Stag at Bay," and "The Monarch of the Glen."⁸⁴ These engravings were collected in America, and variations on this theme appeared in the giftbooks, such as "Hunting the Stag" from Caleb Wright's Scrapbook.⁸⁵

The dog appears in Hooper's catalogue of girandole designs of 1858, together with a cupid and a floral bower.⁸⁶ Dietz offered its own version of man's best friend with its sentimental "Boy and Dog" pattern in the 1860 catalogue (Fig. 9a). An unmarked example of this, bearing scrolled candle supports identical to the marked example (Fig. 17a) and the catalogue figure (Fig. 9d), and with a bronze finish, survives in a Delaware museum (Fig. 12).⁸⁷ The scrolled candle arms and bobèches are also identical to those on the three-light Persian girl girandole, noted above. These attributions reinforce each other.

Hooper also offered three-light girandoles in the form of paired deer.⁸⁸ The mysterious Starr, Fellows & Co. of New York offered a "stag" pattern in 1857. As noted above, they also advertised three patterns which either appear in the Dietz catalogue of 1860, or survive as marked Dietz examples. It is thus tempting to think that perhaps they were buying some or all of their patterns, unmarked, from Dietz, and assembling them in their shop for retail sale (thus justifying the term "manufacturer").⁸⁹

IV. Middle Ages, Elizabethan and Scottish Themes

Tangential to the deer-hunting theme was the Scottish theme which Balmoral seemed to raise in America and England alike. The rage for things Scottish paralleled and was probably related to the love of the exotic; but here it took the form of knights and Elizabethan romances rather than sultans and harems. An illustration from the Gift for My Mother of 1853 shows "The Bonnie Bairns," framed in roses and lilies. The children are not particularly Scottish-looking (i.e., no tartans), but the tone is clear.⁹⁰ The Scottish romances of Sir Walter Scott would have urged on interest in both Scottish and medieval themes (Ivanhoe, 1819).⁹¹ Balmoral's dining room was apparently fitted with lighting fixtures in the form of male and female highlanders, and engravings of Balmoral's interiors, decked in plaids, were much seen.⁹² Highlanders also served as models for cigar-store figures, and, no doubt, these were known to Americans.⁹³

Shakespearian themes followed Persian ones closely in their giftbook popularity. Queen Elizabeth I and Juliet both appear as giftbook illustrations, to go with the tales of medieval adventure which fill the pages.⁹⁴ The temporal difference between 1200 and 1500 seemed to matter but little.

Hooper offered girandoles in the form of an Elizabethan couple, as well as an armored knight and a Scottish youth with a bow.⁹⁵ Such figures as the Elizabethan couple may have been inspired by sculptures like Thomas Crawford's well-known Raphael, or his

Shakespeare (both c. 1855), of which the former's pose and costume seem more Elizabeth I than Italian Renaissance.⁹⁶ Two pairs of girandoles identical to the Hooper version, but marked by Dietz, Brother & Co., have already been discussed (Fig. 13).⁹⁷ A version of Hooper's knight is pictured (somewhat anachronistically) in Arthur Hayward's Colonial Lighting of 1923.⁹⁸ Dietz offered a "Highland Mary" design as its own contribution to this fashion (Fig. 9b).

V. Unspecific Sentimental Themes

Less specific sentimental literature and images such as the "Brave Boy" and the "Honest Boy" from the 1846 Parlor Annual⁹⁹ would have inspired such designs by Dietz as the "Boy and Dog" already noted, and the "Boy and Girl" which appears in the 1860 catalogue (Fig. 9d). This young couple might also represent the "Brother and Sister" illustrated in the frontispiece of Friendship's Offering (1853).¹⁰⁰ An example of Dietz's "Boy and Girl," with the same scrolled candle arms noted previously, is mislabeled "Paul and Virginia" in Hayward's Colonial Lighting (Fig. 14).¹⁰¹

VI. Indians

Transferring the romance of Walter Scott to America and the pen of James Fennimore Cooper, the Indian becomes a logical source for popular imagery. The Iris of 1852 was devoted entirely to stories and

illustrations of American Indian romantic literature.¹⁰² The Parlor Annual included an ill-fated Indian love story, and Caleb Wright devoted a chapter to the daily life of Indians.¹⁰³

Wooden cigar-store Indians were common trade signs from as early as 1780, and were universally used to denote a tobacconist's shop by 1860.¹⁰⁴ Male and female Indians also appeared in marble, being fairly popular subjects for American sculptors.¹⁰⁵ Thomas Cole used Indians in several of his early paintings, including the well-known Last of the Mohicans (1827) which was based on a scene from Cooper's novel. There is no surprise, then, in finding a set of girandoles, patented by Cornelius & Co. in 1848, depicting three Indian braves.¹⁰⁶

VII. Literary Sources

Literary sources other than the giftbooks were inspiration for lighting designers as well. Robinson Crusoe's adventures were probably among the most popular tales throughout the nineteenth century. A combination of legend and literature made this a compelling image for the mass market. By 1830, more than one hundred American editions of De Foe's novel had been published in the major eastern cities, printed in German as well as in English.¹⁰⁷ At least two chromolithographed comic-book-like editions were still popular as late as 1890.¹⁰⁸ Starr, Fellows & Co. offered the "Robinson Crusoe" girandole for \$7.77 in 1857, as noted above. This was probably the Dietz pattern, which in

identical form occurs as a marked set on which the mark is clearly molded in, not stamped on cold, as it was with the Elizabethan couple pattern (Figs. 15a and 15b).¹⁰⁹ The two double-light examples of this set include foliate candle arms with the triple-flower motif at the top--identical to the catalogue design 155 on plate 35 (Fig. 9b). As in many of the illustrated editions, Friday is kneeling at Crusoe's side.

Another eighteenth-century romance survived and grew in popularity in the nineteenth century: the 1787 Paul et Virginie by Jacques Henri Bernardin de Saint-Pierre. Placed in a setting as exotic as that of Crusoe's adventures, Paul and Virginia are raised on a desert island, fall in love, and each ultimately dies for love of the other. Virginia, indeed, sacrifices her life in order to preserve her chastity in Paul's eyes. An English edition was published in London in 1796, and the first American edition was printed in 1797. A Philadelphia edition followed in 1808, and Evert Duyckinck brought out a New York edition, complete with woodcuts, in 1811. From these woodcuts, and from French editions which show the children seated side by side, Americans might have had a precise image of the young couple.¹¹⁰

Horace Greeley, in his discussion of the porcelain section of the New York Crystal Palace, included mention of Copeland parian ware statuettes of "Paul and Virginia."¹¹¹ Another of these Paul and Virginia parian groups appears, valued at \$8.75 each, in an auction

record of a New York mansion in 1857.¹¹² Randolph Rogers and Erastus Dow Palmer also modeled marble sculptures on the young lovers' tragic story.¹¹³

Just as in the Robinson Crusoe girandole, the exotic setting is reflected by the palm and banana trees which frame Paul and Virginia in the Dietz catalogue (Fig. 9d). An identical but unmarked pair of single girandoles in this pattern remains in the Dietz family. There is little doubt of the attribution, as they have been in the family since the nineteenth century. A three-piece set of Paul and Virginia girandoles is known with the mark of Archer and Warner of Philadelphia. The mark, however, is on the cast prism rings, which are unlike any used by Dietz, who usually stamped its prism rings. The bases here, it seems, were purchased from Dietz and assembled with Archer and Warner parts for resale.¹¹⁴

One of the few American literary works that seem to have sparked popular image-makers was Harriet Beecher Stowe's Uncle Tom's Cabin, published in 1851. It was one of the handful of "modern" American works which provided material for sculptors in marble.¹¹⁵ Collector Lee Anderson suggests that the girandole design Dietz produced based on this story, "Uncle Tom and Eva" (Figs. 9e and 16a), was derived from Staffordshire figurines.¹¹⁶ The Staffordshire potteries did, indeed, make figurines of the devoted old slave and the little girl,¹¹⁷ but their source was probably the same as Dietz's--the first edition of the book, which was illustrated. A marked "Uncle Tom and

Eva" girandole, in a private collection, bears a patent mark (Fig. 16c) as well as the name Dietz, Brother & Co. (Fig. 16b). This, again, would be the pre-1855 mark, not one of the 1860 examples advertised in the catalogue--unless the old mark was not removed from the mold, or the style was not changed with the firm's name. Also, this could be one of the two girandole design patents granted to R. E. Dietz in 1852-53, although two other patterns survive with patent stamps and pre-1855 marks and must compete for the two recorded design patents.¹¹⁸

VIII.. Religious Themes

While Uncle Tom's Cabin bordered on current events, another literary work, the Bible, also seems to have sparked some popular--and oddly secular--images. Male nudes were virtually ignored by the nineteenth-century sculptor (although not completely), and even female nudes made people nervous. Religious association could, however, lift the stigma of nudity from a statue. New Testament subjects were as rare as nudes; St. John the Baptist was, apparently, the exception. Sculptors Benjamin Paul Akers and Margaret Foley both did versions of St. John, as did Thomas Ball, whose St. John is now in the Forest Hill Cemetery in Boston.¹¹⁹ William Richards's guidebook to the 1853 New York Crystal Palace illustrated a marble of a boyish St. John, complete with classical contraposto, rude crucifix, and lion skin.¹²⁰ Such well-known "high art" images, coupled with the heavily religious tone of many of the giftbooks,¹²¹ might well have created a demand for the "St. John" girandole by Dietz in the 1860 catalogue (Fig. 9c). A

set like the catalogue illustration, save for the candle arms, which are of the scrolled variety seen on numerous surviving examples as well as in the catalogue, is known to me (Figs. 17a and 17b).

Fortunately, this set bears the mark "DIETZ PATENT 1859" (Figs. 17c and 17d).¹²² The pose and the props relate to the Crystal Palace St. John, although these were all commonplace accoutrements in the Saint's iconography, and the Dietz figure is older and bearded. It is notable that this set is silver-plated. While the plating seems too clean to be original, it probably was redone over the old silver surface, as it seems unlikely that a gilt piece would be silver-plated after the fact. Dietz and Hooper both offered silver finishes, as noted above.

IX. Political, Historical, Current Events

The other side of Uncle Tom's Cabin--the political and historical side--also drew its share of image-making. One of the most intriguing girandoles offered in the Starr, Fellows & Co. catalogue mentioned above is the "Capture of André" pattern, which features four men and a horse under a tree for the central three-light piece, with military trophies forming the single-light flanking pieces. This group, though slightly rearranged, seems to have come directly from Asher B. Durand's Capture of Major André, painted in 1834, now at the Worcester (Massachusetts) Art Museum. Major André was commander in the Revolutionary War, on the side of the British, and this girandole represents both his capture by an heroic American soldier in 1780, and

the soldier's resistance to André's bribery attempts.¹²³ Henry Tuckerman, writing of Durand in 1867, said that he did his own engravings of André, and it was most likely from these that the girandole was derived.¹²⁴

It is tempting to put André into R. E. Dietz's design list in the light of other Dietz designs in the Starr catalogue. The temptation is even greater in light of an unusual patriotic girandole design for which R. E. Dietz was granted a patent in 1853. The design consists of a military figure surrounded by symbolic weapons (Fig. 18). The only clue to his identity is a scroll of paper with the word "HUNGARY" on it in the figure's left hand. This clue, added to the "LIBERTY" cartouche at the top of the design, points to Lajos (Louis) Kossuth, leader of the Hungarian revolution of 1848. Kossuth, in fact, came to America in 1850 to raise support for his cause, and for a while was quite a heroic figure in this country.¹²⁵ That Dietz was so caught up in Kossuth's cause as to design a girandole, indicates a strong patriotic streak as well as a nose for popular sentiment. No example of the Kossuth girandole is known to me, and perhaps none were produced, due to America's waning interest in such revolutionary events by 1850.¹²⁶ The weapons on the design are all numbered, as if Dietz meant them to have some iconographic significance, but this portion of the original patent is lost, and along with it Dietz's intent. It is a classic paradox of American life that a symbol of revolution was designed to be gilded, set on a marble pedestal, and hung with crystal prisms for use in parlors which were anything but revolutionary in spirit.

Jenny Lind, a national celebrity at mid-century, was the source for another Dietz girandole design, which was patented in 1853 (Fig. 9f). As the lighting of her debut in New York in 1850 was the first great "coup" of the Dietz firm, this is no surprise. Her concerts drew packed houses, and her image, surrounded with a flowering vine as on the girandole, graces the pages of Wright's Scrapbook of c. 1850.¹²⁷ A dated and marked example of this girandole form survives in Bulloch Hall, a house museum in Roswell, Georgia.¹²⁸

X. Architecture, Public Monuments

Finally, actual monuments were sometimes used as sources for girandole design. The most famous of these is the William F. Shaw design for the "Mount Auburn Chapel" girandole, patented in 1849 (Fig. 19).¹²⁹ These girandoles have survived in some number, including a complete mantel set bearing the patent date in the Rochester Historical Society, Rochester, New York.¹³⁰ Caleb Wright's giftbook illustrates this celebrated landmark, virtually as it appears in the girandole. The date of Wright's book is not known precisely, and thus it is unclear whether Shaw saw the design there first, or the other way around. The chapel, which reportedly cost \$25,000, would have appealed to both religious and romantic customers with its gothic pinnacles and medieval associations.¹³¹

As a final test of the popular sources for Dietz's girandoles, Currier and Ives, printmakers of America, seemed a logical choice, and turned out to be fertile ground indeed. Indians were a favorite theme

for the printmakers, and Major André's fate also appeared on their stones, in 1845 and 1876 respectively.¹³² Currier and Ives did a Paul and Virginia print (c. 1835-56); an Uncle Tom and Little Eva print (c. 1835-56); a St. John the Baptist in 1846; a Highland Mary (c. 1835-56), as well as two other highland girls; a Jenny Lind (c. 1850-56); a Robinson Crusoe and His Man Friday (1874); and a Boy and Dog (c. 1857-1907).¹³³ In other words, six of the eleven titled designs in the Dietz catalogue match Currier and Ives print titles of the period, while the remaining Dietz designs are either too abstract or too general ("Boy and Girl") to have been comparable. Again it seems that Dietz and the printmakers were pulling their ideas from the same wave of popular taste, if Dietz was not, in fact, borrowing directly from Currier and Ives. In both cases the entrepreneurs were dealing with and appealing to the middle-class taste for refinement and "art," and no doubt reflecting their own personal tastes as well.

The overall design of the girandoles made by Dietz expresses the prevailing rococo fashion of the 1850s. In the 1860 catalogue, they were offering designs unchanged from 1852. Was this also true of their lamp designs? Was there similar symbolic content in the figural members of a table lamp or chandelier? From the examples in the Dietz catalogue, it seems that lamps were both more avant-garde in their design and more conservative; furthermore, content seems not to have been specific in its associations, but general, dealing with themes such as exoticism or the Middle Ages, rather than with individuals or particular events.

Throughout the 1860 catalogue, rococo is the dominant style, but by no means the only one. The cover design itself is largely made up of gold C and S scrolls printed on the royal-blue ground, but there is a central element--a hand holding an oil jar over a lamp--which points to a classical reference. The association of oil lamps with Roman and Greek antiquity may, in part, explain why classical forms continue to be popular well into the 1860s. Starr, Fellows & Co. made much of the ancient Jewish and Roman use of oil lamps.¹³⁴

Dietz illustrated "plain" columnar forms of lamps alongside "very rich" rococo tripod lamps, giving them equal importance on the unusual black and gold prefatory pages of the 1860 catalogue.¹³⁵ The "rich gothic" tripod lamp on one of these pages was a mixture of rococo and gothic elements--a hybrid child of seemingly unsympathetic parents--but had a classical globe design. The religious articles Dietz made in cast brass (altar tapersticks, church crosses) were also classical, but in a heavy, Renaissance manner, pointing to the fashion of the Gilded Age (c. 1865-80), rather than that of the more "chaste" Greek Revival.

The "bronze" based lamps were generally in the neo-Renaissance style, including figures of little boys in tunics, funerary urns on tripods, a fox curled up at the base of a tree, cupids and putti by the score, classical and middle-eastern men and women, a seated Chinese mandarin, and Elizabethan men and women holding cornucopia.¹³⁶ Often, classical poses and rococo vegetation combined happily in one

bronze pedestal. Yet in the midst of a page of bronze neo-Renaissance forms appears a gilt chandelier, entirely composed of rococo scrollwork and grapevines,¹³⁷ which jarred neither R. E. Dietz nor, apparently, his customers.

The title page of the Dietz catalogue illustrates two free-standing seminude classical figures, which appear to lean on the lamp shafts and share the pedestals with the lamps they are, in fact, part of. The effect is rather like two young, party-clad women leaning against street-lamp posts, although the allusion is hardly what the designer intended. Another freestanding, classically-draped woman appears on plate 32 of the catalogue, but here she is holding the font on her head, steadying it with her left hand. An example of this lamp will be discussed below. Such fully-developed classical figures clearly grew out of the taste for statuary and French art bronzes, bringing a functional form of art into the home. The female nude was the highest ideal for the sculptor, but to make its way into the American parlor, it had to be draped. The seminude frontispiece lamp figures are the closest approximation to the ideal classical nude known to me on lighting devices.¹³⁸ In such pieces were the combined status of the art bronze and the parlor lamp all in one--an object of luxury as well as refinement, and a boon to the housekeeper who had little enough space to spare for useless artistic gimcrackery in her parlor.

The line of chandeliers Dietz offered, aside from the clearly rococo variety, showed a fascinating iconographic variety. Bronze medieval pageboys stand atop kerosene chandeliers of four or six lights, holding banners or birds, surrounded by gilt animalistic medallions. Sphinx-like creatures crouch between the light branches, which themselves are either rococo foliate scrolls or bossed Jacobean strapwork. The fonts of these wonders take the form of two-handled Roman amphorae or oil jars.¹³⁹ The neo-grec element of the 1860s taste appears in the form of helmeted caryatids and portrait medallions--yet is rarely without a few lingering traces of the rococo.¹⁴⁰ The flowing curves of the rococo alternate across the page with the inward-turning angularities and spearheads of the neo-grec; yet gothic shades and lanterns appear alongside with no apology.¹⁴¹

Throughout all this stylistic variety, the basic columnar form remains. Fluted brass or glass lamps, chaste and less expensive, were, no doubt, the largest selling forms in Dietz's inventory.¹⁴² These basic "pedestals" could easily be dressed up with some of the cased, plated and/or cut-glass fonts, in white, red, blue, or green, and with gilt decoration added to that, to give a more luxurious effect.¹⁴³ For those who could not afford even that luxury, plain clear pressed glass fonts were available in myriad patterns for the bedroom or the less prosperous parlor.¹⁴⁴ The top-of-the-line lamps offered by Dietz were remarkable rococo confections of plated, gilt, and cut glass with bronze tripod feet and trim, or double marble bases. These are the lamps which would have cost \$50 when new, putting them beyond the

reach of the average American.¹⁴⁵ Such lamps could be further embellished with rococo prism rings draped over the font and hung with flat, spearhead, or fancy-cut prisms.¹⁴⁶ Frances Lichten has said that Bohemian glass (made in England and New York as well by this period) was popular, but seen as "gaudy and inelegant" by the "best taste of the days."¹⁴⁷ Given the extreme cost of the Dietz lamps pictured in the opening color plates, and given changing tastes among American decorative arts scholars since 1950, it is tempting to shrug off this sort of bias. Perhaps the English would have scoffed at such lavish lamps, but there is little doubt that wealthy Americans would have seen Dietz's most elegant lamps as the ne plus ultra of domestic decorative lighting. Eighteen sixty was hardly an era of decorative restraint, and "gaudy" probably had little meaning before the influence of the reformers and aesthetes was felt in America.

The surviving Dietz lamps--marked and unmarked--illustrate the full range of cost and design which Dietz offered in 1860.

LAMPS

I. Classical Lamps

Two ionic columnar lamps bearing the Dietz, Brother & Co. label are known to me. One is in a private collection, the other in the Western Reserve Historical Society in Cleveland (Fig. 20).¹⁴⁸ Both of these examples share the oval brass plaque used by Dietz as a label, which in all known cases is fixed to the spun brass font. Furthermore,

these two examples have an additional line of information on the labels, which is the "139 WILLIAM STREET" address of the factory. Two other lamps bear this extra line, which bisects the oval plaque, and serves as a slight aid in dating. Dietz did not move into the William Street factory until 1847, which would place all similarly labeled lamps into the 1847-55 period, narrowing the 1840-55 range for the Dietz, Brother & Co. name. The ionic lamp remained popular, however, and appears in the 1860 catalogue on plate 33, figure 210. Hooper also offered an ionic lamp in 1858, as did Starr, Fellows & Co. in 1857 though, again, this may have been a Dietz model.¹⁴⁹ Such survival of older classical forms so close to the Civil War indicates a strong conservative taste running through American fashion.

Plainer columnar forms also remained popular, judging from their presence in the Dietz catalogue. An example, labeled as are the ionic models, is in my own collection, and appears both on plate 32 of the catalogue and on the second of the gold and black prefatory pages (Fig. 21). This same plain fluted column, dressed up with a rococo foot and collar, appears on a labeled example (Fig. 22),¹⁵⁰ and on one with a glass font in Australia (Fig. 23). The latter example is attributed to Dietz and dated 1858, possibly due to the burner, which, if a Dietz burner, would bear the Dietz patent date of 1858 on the winding stem (see Fig. 35b). The font on this piece seems to be identical to a blue glass font into which the Dietz name has been molded (see Fig. 27b), reaffirming the likely attribution.¹⁵¹

The next classical lamp is the standing female figure pictured on plate 32, figure 149 of the catalogue (Figs. 24a and 24b).¹⁵² This same lamp design appeared in the 1865 New England Directory advertisement by Dietz, as well as the 1860 advertisement, mentioned above, illustrated by Carl Drepperd (see Part I, notes 104 and 105). Apparently, Cornelius made (or marketed) an identical lamp at around the same time.¹⁵³

II. Rococo Brass Lamps

A tripod lamp, also labeled Dietz, shows a fully developed rococo theme, with no trace of classicism, complete with floral clusters and rocaille cartouches (Figs. 25a and 25b). The font fits securely, by means of a screw thread, into the base, and was apparently original. Cornelius is also known to have made versions identical or very close to this example, but, as with the former example, there is no solution to the puzzle so far.¹⁵⁴ Dietz's catalogue shows several similar varieties of tripod lamps; and since this one, from the label, must have been made before 1855, its design may have been eliminated from the 1860 catalogue. I have already established that Dietz was the largest oil lamp maker in America in 1860. Cornelius, although a much bigger firm, was chiefly involved with gas fixtures, and probably with gas-pipe fitting as well. Therefore, it is quite conceivable that Dietz sold lamp bases such as Figure 25 to Cornelius, just as the present Dietz Company sells parts to firms many times its size. None

of the cast parts of this tripod lamp are marked, although the base of the tripod is numbered. Dietz and Cornelius alike put their oval plaques on the fonts.

An interesting art nouveau look appears on the 1847-55 labeled lamp in a New York collection (Fig. 26a).¹⁵⁵ The design is clearly meant to be rococo, and relates to several designs on plate 32 of the Dietz catalogue. However, the flowing curves and lily motif (Fig. 26b) give this piece a fluidity akin to Tiffany designs of forty years later. A picture of the label illustrates the 1847-55 version of the oval plaque (Fig. 26c). Since the presence of the address on the label indicates a date range from 1847-55, it is tempting to date all labeled pieces without the address earlier--that is, between 1840 and 1847. Unaddressed Dietz labels could, however, have been used both before and after the second version appeared. There is no proof that the addressed label superseded the unaddressed variant. In any case, precise dating of labeled lamps between 1840 and 1855 has little meaning, beyond establishing early appearances of a style or form. The 1860 catalogue demonstrates that a particular form might be manufactured unchanged over a twenty-year period despite additions to the firm's stylistic repertoire.

III. Glass Lamps, "Sandwich Type"

Figure 27a is a form of lamp commonly referred to as a "Sandwich" type. It was, in fact, sold with a Sandwich attribution,

regardless of the fact that "DIETZ, BROTHER & CO." was molded into the blue glass of the font (Fig. 27b).¹⁵⁶ The same font, complete with the backwards "Z," occurs on a bronze based lamp with a long history in the Dietz family.¹⁵⁷ Dietz, no doubt, ordered such fonts directly from the glassmaker. To my knowledge, at least one other firm ordered similarly molded fonts (Fig. 28).¹⁵⁸ The blue font on the Dietz glass lamp is similar to those offered on plate 6 of the catalogue, while the base is like several in the 1866 photographs (Figs. 8a-d) and throughout the catalogue.

A black version of the above "Sandwich" base occurs on a lamp in the Ford Museum (Fig. 29), and on plate 11, figure 966 of the 1860 catalogue. The font of this lamp appears on plate 13, figure 996. Thus, while any number of dealers could have sold this lamp, it might easily have been sold by Dietz in its line of moderately-priced glass lamps.¹⁵⁹

An unlabeled lamp, also of the "Sandwich" type, is attributed to the Dietz firm because of its long history in the Dietz family.¹⁶⁰ The font, of opaque white case glass cut through to turquoise then gilt (Fig. 30), is identical to fonts offered on plate 6 of the catalogue. The shaft is identical to those in the 1866 photographs (Figs. 8a-d), and similar to versions in plates 11 and 12 of the catalogue. The square, stepped base is interesting, as it seems to imitate the marble bases more than the curved form of Figure 27a does.

The last of the glass lamps with family histories is one of a pair of red plated and cut-glass lamps (Fig. 31). Aside from the long family ownership, the attribution to Dietz, at least as marketer, is reaffirmed by an identical lamp form in opaque glass which appears in one of the 1866 photographs (Fig. 8c).¹⁶¹

An enormous green plated and cut-glass lamp on a triple marble base is now in storage at the Western Reserve Historical Society (Fig. 32). The glass font and pillar of this three-foot-high lamp are very close in form and cutting pattern to pillar and font designs offered by Dietz on plates 5 and 6 of the catalogue. Once again, as Dietz did not produce its own glass, there can be no sure attribution based merely on design or on the metal trim. Nonetheless, Dietz could have assembled such a piece, and probably had the clientele in New York to warrant it.

IV. Utilitarian Lamps

Two small, cheap lamps bearing the Dietz mark are known to me, both in private collections. Both have simple, clear fonts which seem to be blown rather than molded, and plain brass shafts (Figs. 33a and 34a). The only difference is in a small flange which appears on one of the lamps just below the font. The variation in the shape of the fonts themselves is probably due more to the nature of glassblowing than any design difference. Both lamps have an incised mark (see Figs. 33b and 34b) consisting of the American eagle, with the legend

"DIETZ, BRO. & CO. N.Y." forming a semicircle beneath it.¹⁶² The shaft designs appear on plate 9, figure 922 of the catalogue, while a small "stand lamp" on plate 34 gives the model for the very plain font. A third lamp with an identical marked shaft and a slightly dressier molded font remains in the Dietz family.¹⁶³ A plain brass student lamp, also still in the family, bears a variation of this eagle mark, consisting of two small incised eagles, with the legend curving between them.¹⁶⁴

V. "Bronze" or Spelter Lamps

Aside from the bronze-based Dietz lamp with the marked blue font noted above, two bronze lamps surviving in the family, may be attributed to Dietz. The first (Fig. 35a) is one of a pair and retains the winding stem from its original burner. It has a long family history. The design for the "bronze" base, actually what appears to be bronze-finished spelter, is found on plate 34, figure 608 of the catalogue.¹⁶⁵ The winding stem and part of the burner have survived electrification (Fig. 35b) and bear the "DIETZ PATENT SEPT. '58" legend, referring to Michael Dietz's patented burner of that year.

Finally, an exuberant bronze lamp survives in a family collection, having a font of gilt opaque white glass which is identical to one illustrated on plate 3 of the catalogue, figure 1053. The base is a tripod pedestal in the form of three putti standing back-to-back. While not marked, the similarity of design and family tradition make

this attribution fairly safe.¹⁶⁶ The census records of 1860 and 1870 indicate that Dietz did its own spelter casting as well as brass casting and spinning (see p. 38 and Part I, note 113).

VI. Cased Glass, Ormolu, and Marble: Expensive Lamps

The final group of lamps in this study are the most expensive survivals, representing the top line of the firm's production. The first, formerly in a family collection, is now owned by the R. E. Dietz Company. This lamp bears the unaddressed oval label on its font (see Figs. 36a and 36b). The red and white cased and gilt glass column sits on a double marble base, and is trimmed with cast floral "drops" at the collar (Fig. 36c) with grapevine and cluster molding at the base (Fig. 36d). The same grapevine motif appears on the "Robinson Crusoe" and the "Uncle Tom and Eva" girandoles. The column design for this lamp is found on plates 1, 2, and 3 of the catalogue, and was referred to as a fluted glass pillar.

A nearly identical lamp, also labeled, differs from the Dietz Company piece only slightly.¹⁶⁷ It is of blue and white glass, rather than red and white, and the foot of the pillar is of an elaborate rococo type, rather than the plain foot of the previous piece (Fig. 37a and 37b). Also, the molding around the marble base is architectural, not the grapevine type (Fig. 37c).

These two lamps form the basis of attribution to Dietz for a third unlabeled lamp at the Ford Museum's Webster House (Fig. 38).

The floral drops and base molding are identical to the previous piece, as is the blue and white coloration and the form of the pillar.¹⁶⁸

A fourth lamp, with a labeled Cornelius font, raises a question as to attribution. It has the identical floral-drop collar, as well as the grapevine molding of the Dietz pieces. Furthermore, its fluted and gilt red glass pillar is virtually identical to one illustrated on plate 2 of the Dietz catalogue.¹⁶⁹ It is noticeably shorter than the other surviving fluted lamps, but the Dietz catalogue included both short and tall versions of this form. A fifth piece, labeled by Dietz, has an identical fluted pillar in white glass. This lamp has, sadly, disappeared.¹⁷⁰ Clearly the Cornelius lamp creates a problem. Because of Dietz and Company's size and importance in 1860, and since I know of three Dietz pieces with fluted glass pillars to only one such Cornelius example, I am tempted to suggest that Cornelius and Dietz bought their glass columns from the same maker, and then Cornelius bought the trimming parts from Dietz. It must not be forgotten that Dietz was entirely devoted to parts for oil lamps. There is no proof that this is what happened, any more than there is proof that Dietz held a license for the fluted pillar form and was its sole wholesale purchaser from the glassmaker. Only detailed glassmaker's records would solve this dilemma, and there is a paucity of such records. Likewise, the relative ease of pirating brass casting designs leaves the question open as to whether such piracy really did go on, and to what extent.

If the above puzzle is over solved, then it may be possible to attribute Figure 39 to Dietz.¹⁷¹ The red cut font and grapevine motif at the base as well as the bulbous foliate pillar are all details which appear either on labeled Dietz pieces or in the 1860 catalogue. It is certainly of a type Dietz assembled and marketed. If this attribution can ever be confirmed, then another striking pair of lamps with cut green fonts (Fig. 40) will also be attributable to Dietz by virtue of their identical foliate pillars.¹⁷² Dietz did use similar prism rings, and made similar lamps; but until still more light is shed on trade connections between major glass factories and major lighting firms, the attributions must remain, at best, tentative.

The products of the Dietz firm played an important role in the mid-nineteenth-century American home. Not only did lamps represent a technological advance over the restricted lighting capability of candles, but they also came to represent literacy, taste, and social status to those who owned them. Because of its potential for great variety, both in decorative treatment and in scale, the lamp became a far more important vehicle for material display than the candleholder had ever been in eighteenth-century America. Similarly, the figural girandole emerged in the nineteenth century as a uniquely American object, drawing on seventeenth-century continental court life for both its name and function. The girandole represented the new sociotechnic role of the candle in the nineteenth century. This sociotechnic role superseded the candle's former primary function as light source in the front rooms of the American home. Both the fine lamp and the girandole.

were objects of luxury, using ormolu, marble, and cut or molded glass in opulent combination. Furthermore, figural elements filled both the need for art in the home and the need for cultural and historical associations--needs which American artists and writers had expressed since the Revolution. Due to their relatively lower cost, girandoles were available to a wider mass of the population and drew on a vast pool of popular culture for their designs. Nonetheless, this popular culture was a literate one, as it was the middle class that read romances, went to concerts, and took to heart the cause of democracy in Europe.

The Dietz line of lamps and girandoles was aimed equally at the rich and not-so-rich client. The 1860 catalogue offered products whose prices probably ranged from a dollar or two up to fifty or more for a lamp, and possibly a hundred or more for a chandelier. Dietz and Company produced every conceivable variation of stand lamp so as to provide an appropriate lamp for the shopkeeper's parlor as well as the merchant prince's.

Thus the range of R. E. Dietz's decorative lighting prices reflected at once the breadth of his market and the breadth of his society. He was born an artisan's son, in a family which would have purchased its lamps from the lower end of Dietz and Company's line. Dietz moved up the socioeconomic ladder, becoming a clerk, then a shopkeeper, and ultimately a small-scale merchant prince. By the time R. E. Dietz began to manufacture his lanterns in the 1870s, he was

well able to buy the best of his own firm's products. His life, like the lamps and girandoles he manufactured between 1840 and 1875, was shaped by the changing character of American society and culture during the middle decades of the nineteenth century.

NOTES

Part II

¹Henry Havard, Dictionnaire de L'Ameublement et de la Décoration (Paris, 1878-188?), Vol. II, pp. 1094, 1095, 1098.

²Carl Drepperd, A Dictionary of American Antiques (Boston, 1952), pp. 172-73.

³Thomas Chippendale, The Gentleman and Cabinetmakers' Director, second edition (London, 1754), plate CXL.

⁴Thomas Johnson, One Hundred and Fifty New Designs (London, 1761), title page.

⁵Charles Percier and Pierre Fontaine, Recueil de Décorations Intérieures(...) (Paris, 1801), cover and title page.

⁶George Smith, A Collection of Designs for Household Furniture (London, 1805), plates 135, 136.

⁷Thomas Hope, Household Furniture and Interior Decoration (London, 1807), plate and entry 42.

⁸William Voss Elder III, Baltimore Painted Furniture. 1800-1840 (Baltimore, 1972), p. 11.

⁹Henry Whitaker, Cabinet Maker and Upholsterers' Treasury of Designs (London, 1847), plate 125.

¹⁰From dated examples in the Rochester Historical Society, Rochester, New York.

¹¹See Part I, notes 57 and 61.

¹²H. N. Hooper catalogue, see Part I, note 80. The reference to "olive" finishes is on the title page.

¹³Shelton Lamp Works, Catalogue (Birmingham, England, c. 1820), p. 13.

¹⁴Dietz and Company, Catalogue (New York, c. 1860) on the second of the two black and gold pages following the title page. Hereafter cited as Catalogue.

¹⁵Shelton catalogue, op. cit., see note 13.

¹⁶See also Catherine M. V. Thuro, Oil Lamps, The Kerosene Era in North America (Des Moines, 1976), pp. 18-19.

¹⁷Catalogue, second gold and black page.

¹⁸Birmingham Trade Catalogue, A Book of Lamps (Birmingham, England, 1812), unpagd. (Courtesy Winterthur Rare Book Room.)

¹⁹Loris Russell, A Heritage of Light: Lamps and Lighting in the Early Canadian Home (Toronto, 1968), p. 129.

²⁰In Thuro, op. cit., see note 16. Also see Samuel Dietz letter, p. 52.

²¹Catalogue, plate 33, and second gold and black page. "Hall lantern" is a term which shows up in many eighteenth- and nineteenth-century inventories (Winterthur, Joseph Downs Manuscript Collection).

²²Ibid., plates 4, 5.

²³Thuro, op. cit., see note 16.

²⁴Catalogue, plate 7.

²⁵See Harold L. Peterson, Americans at Home. From the Colonists to the Late Victorians (New York, 1971), plates 78, 95.

²⁶Archer and Warner, A Familiar Treatise on Candles and Lamps and Gas Lights (Philadelphia, 1850), p. 10.

²⁷Leaf, p. 94. Recollection of R. E. Dietz of c. 1840-50.

²⁸Russell, op. cit., pp. 131, 134, 135.

²⁹Hubbard, op. cit., see Part I, note 31.

³⁰Thuro, op. cit., p. 18.

³¹James Deetz, In Small Things Forgotten (New York, 1977), pp. 51-60.

³²Duyckinck Family Papers, op. cit., see Part I, note 63. Billheads dated December 17, 1844; October 4, 8, 1851.

³³Peterson, op. cit., plates 173, 174 (hardcover edition).

³⁴Edith Wharton, The House of Mirth (New York, 1964, orig. 1905), p. 107.

³⁵Stanley Lebergott, "Wage Trends, 1800-1900," in Trends in the American Economy in the Nineteenth Century (New York, 1960), pp. 462-76, 484.

³⁶Page Talbott, "Shop and Factory, Philadelphia Furniture Makers and Manufacturers, 1850-1880." Unpublished paper, p. 27.

³⁷Metropolitan Museum of Art, Nineteenth Century America (New York, 1970), plate 126, caption.

³⁸Henry Leeds & Co., Catalogue of Elegant Household Furniture...to be sold at auction... (New York, 1858), Winterthur Rare Book Room. The house, 7 East 17th Street, must have been very newly furnished, perhaps only five years earlier. The estate inventory of this house is also at Winterthur, and the prices quoted therein are more than double what the auction fetched.

³⁹William Irving & Co., House at 4 Union Square--Sold by... (New York, 1856), Winterthur Rare Book Room.

⁴⁰"Expense of Erecting a New House, 1852," Winterthur Museum Joseph Downs Manuscript Collection (No. 77 x 499).

⁴¹The William Sellers Papers, Winterthur Museum, Joseph Downs Manuscript Collection (No. 77 x 584.25).

⁴²"An Account of Stock Taken March 4th, 1850...", Winterthur Museum, Joseph Downs Manuscript Collection (No. 77 x 550).

⁴³"Invoice of April, 1845," Winterthur Museum, Joseph Downs Manuscript Collection (No. 77 x 654).

⁴⁴Leeds auction record, see note 41. The estate inventory, noted above, gives the appraised worth of the contents, which would be much closer to their cost, rather than their expected auction value.

⁴⁵Starr, Fellows & Co. catalogue, op. cit., see Part I, note 60. The Dietz attributions will be discussed later.

⁴⁶Thuro, op. cit., pp. 18-19.

⁴⁷This is close to what the present R. E. Dietz Company pays its entry-level factory workers.

- ⁴⁸Whitworth and Wallis, op. cit., p. 129 (see Part I, note 75).
- ⁴⁹Archer and Warner, op. cit., pp. 1, 2, 7.
- ⁵⁰Starr, Fellows & Co., op. cit., no page.
- ⁵¹Ulysses G. Dietz, "Lighting Usage in the Nineteenth-Century American Home, from 1830-1875." Unpublished paper, 1979, pp. 35-36.
- ⁵²John F. Ware, Home Life: What It Is and What It Needs (Boston, 1866), p. 100.
- ⁵³Nathaniel Hawthorne, The Scarlet Letter (New York, 1969, orig. 1850), p. 31.
- ⁵⁴Whitworth and Wallis, op. cit., pp. 129-30.
- ⁵⁵Frances Lichten, Decorative Arts of Victoria's Era (New York, 1950), pp. 90, 91, 93-94.
- ⁵⁶The American Book of Beauty (Hartford, 1850), passim. Also, see A Gift for My Mother, An Annual for 1853 (New York, 1853). All giftbooks cited are from the Winterthur Rare Book Room.
- ⁵⁷John Keese, ed., The Floral Keepsake and Language of Flowers (New York, c. 1850).
- ⁵⁸Friendship's Offering, 1853 (Philadelphia, 1853), pp. 303, 324, 326.
- ⁵⁹John B. Newman, Beauties of Flora (New York, 1848), pp. 123, 178-81, 287-88.
- ⁶⁰F. E. Hume, Principles of Ornamental Art (London, c. 1860), pp. 41-43, 46.
- ⁶¹Lichten, op. cit., pp. 155-56.
- ⁶²Marked set: Collection of Ulysses G. Dietz, Newark, Delaware (pair). Unmarked set: Collection at Buena Vista Museum, Wilmington, Delaware (pair).
- ⁶³Marked example: Collection of Mrs. Joseph Newall, New York (three-light). Unmarked example: Collection of the Mabel Brady Garvan Collection, Yale University Art Gallery, Peabody Transfer, Gift of Millicent Todd Bingham Accession No. 1971.27.6 (three-light).
- ⁶⁴The Henry Ford Museum Dearborn, Michigan. The pair of two-light sconces are in the Department of Musical Instruments (no accession number).

⁶⁵The Morris-Jumel House, New York. The pair of figural girandoles, two-light, is in Mme. Jumel's bedroom, on the mantel. The figure is of a woman holding a fan (no accession number).

⁶⁶Hooper, op. cit., p. 5.

⁶⁷William H. Gerdtz, American Neo-Classic Sculpture, The Marble Resurrection (New York, 1973), pp. 92-93.

⁶⁸S. G. Goodrich, A Winter Wreath of Summer Flowers (New York, 1855).

⁶⁹Caleb Wright, The Pictorial Scrapbook (Northampton, Massachusetts, c. 1850).

⁷⁰Manual of the Arts for Young People (...) (or a present for all seasons) (Boston, 1857), pp. 211, 279.

⁷¹Wright, op. cit., pp. 48, 67, 104, 107, 359.

⁷²Erwin O. Christensen, The Index of American Design (New York, 1950), p. 69, figure 134.

⁷³Hume, op. cit., passim.

⁷⁴Andrew Jackson Downing, The Architecture of Country Houses (New York, 1852), p. 27.

⁷⁵Wright, op. cit., p. 83.

⁷⁶There is a pair of single-light girandoles from which the photographs are taken, in "Sunnyside," Washington Irving's house in Tarrytown. Courtesy Sleepy Hollow Restorations (Accession No. SS.62.97-98).

⁷⁷From a set of five, two pairs of single-lights and one with three lights, collection of Mr. Raymon Barry, Orange, California.

⁷⁸Christmas Blossoms (Philadelphia, 1854), pp. 35, 121.

⁷⁹Wright, op. cit., pp. 337, 351.

⁸⁰Gerdtz, op. cit., p. 142. He does not include horses, which rarely occur without a celebrated rider.

⁸¹See Hume, op. cit., p. 29. Also, see Wright, op. cit., p. 79.

⁸²Hume, op. cit., p. 30.

⁸³Christensen, op. cit., figs. 151 and 162.

⁸⁴Lichten, op. cit., pp. 26-31. In fact, a damask cloth showing Albert deer-hunting was used at Balmoral.

⁸⁵Wright, op. cit., pp. 217, 236. Much is made of the aristocratic heritage of deer hunts.

⁸⁶Hooper, op. cit., p. 5.

⁸⁷Collection at Buena Vista Museum, Wilmington, Delaware (pair of three-light).

⁸⁸Hooper, op. cit., p. 21.

⁸⁹Starr, Fellows & Co., op. cit., see Part I, note 60.

⁹⁰Op. cit. (see note 63), facing p. 62.

⁹¹Lichten, op. cit., pp. 27-56.

⁹²Ibid., p. 28.

⁹³Christensen, op. cit., p. 66, figure 123.

⁹⁴Wright, op. cit., pp. 133-35, 144, 166-67, 177. See also, Amelia Laurence, An Offering of Beauty, A Present for All Seasons (Philadelphia, 1848), frontispiece. See also, The Woodbine. A Holiday Gift (Philadelphia, 1851), pp. 23 and ff.

⁹⁵Hooper, op. cit., pp. 11, 14, 15, 20.

⁹⁶Gerdts, op. cit., p. 106, figure 107.

⁹⁷See Part I, note 81.

⁹⁸Arthur H. Hayward, Colonial Lighting (Boston, 1923), plate 101.

⁹⁹The Parlor Annual and Christian Family Casket (New York, 1846), unpagged.

¹⁰⁰Friendship's Offering, op. cit., p. 231.

¹⁰¹Hayward, op. cit., plate 99.

¹⁰²John S. Hart, ed., The Iris. An Illuminated Souvenir (Philadelphia, 1852).

¹⁰³Parlor Annual, op. cit., p. 91.

¹⁰⁴Christensen, op. cit., p. 63.

¹⁰⁵Gerdts, op. cit., p. 128.

¹⁰⁶Rochester Historical Society, Rochester, New York. The set is a pair of two-light girandoles, marked: "Cornelius & Co., Dec. 1848."

¹⁰⁷Clarence S. Brigham, "Bibliography of American Editions of Robinson Crusoe to 1830," in Proceedings of the American Antiquarian Society, Vol. 67, Part 2, 1958, pp. 137-83.

¹⁰⁸Robinson Crusoe, "Aunt Kate's Series" (New York, 1880-90). See also, same title, "Wonder Story Series" (New York, 1889). Courtesy Winterthur Rare Book Room.

¹⁰⁹Collection of Professor and Mrs. Phillip V. Rogers, Clinton, New York (two double-light and a five-light).

¹¹⁰University of Delaware, Morris Library, card catalogue.

¹¹¹Horace Greeley, ed. and rev., Art and Industry as Represented in The Exhibition at the Crystal Palace... (New York, 1853-54), p. 119.

¹¹²See note 41. These were in the front parlor, with a set of Baudouine furniture, which was similar to Belter in expense and style, Lot 231.

¹¹³Gerdts, op. cit., p. 120.

¹¹⁴The set marked by Archer and Warner is in the D. A. P. C. files at Winterthur, No. 74.6205. The pair is in the collection of Mr. and Mrs. Gerry J. Dietz, Syracuse, New York. This pair of single-light girandoles has been in the family for several generations, but the present owners had no idea they were Dietz.

¹¹⁵Gerdts, op. cit., p. 121.

¹¹⁶Letter of October 1979, from Lee Anderson to Ulysses Dietz.

¹¹⁷John and Jennifer May, Commemorative Pottery, 1780-1900. A Guide for Collectors (London, 1972), p. 134.

¹¹⁸Hubbard, op. cit. (Part I). Collection of Gary Kingsley, Philadelphia, also collection of Lee Anderson, New York.

¹¹⁹Gerdts, op. cit., p. 73.

¹²⁰Richards, op. cit. (see Part I, note 73), facing p. 24.

¹²¹For an example of this, see The Literary Emporium (New York, 1846).

¹²²Collection of Mr. and Mrs. J. S. Dietz, Cazenovia, New York.

¹²³A.B. Durand, 1796-1886, exhibition catalogue (Montclair, New Jersey, 1971), p. 49, figure 28.

¹²⁴Henry T. Tuckerman, Book of the Artists (New York, 1867), p. 189.

¹²⁵Who Was Who?. Historical Volume. 1609-1896 (Chicago, 1963), p. 299.

¹²⁶See John Higham, From Boundlessness to Consolidation (Ann Arbor, 1969), pp. 20-21.

¹²⁷Wright, op. cit., pp. 247, 249.

¹²⁸"Bulloch Hall in Roswell, Georgia," in Antiques (June 1974), p. 1325. Caption titled, "Parlor to the Right of the Hall." The three-light center girandole is on the mantel, and the caption says that it was made by Dietz in 1853. This implies that the piece has a patent date on it.

¹²⁹Patent Number 256, December 18, 1849. See Hubbard, op. cit.

¹³⁰Rochester Historical Society. Two single-lights and a triple-light, marked: "W.F.Shaw, Boston, 1849."

¹³¹Wright, op. cit., p. 231.

¹³²See W. S. Hall, Currier and Ives Prints: The Red Indian (New York, 1931). Also, see Jane Cooper Bland, Currier and Ives. A Manual for Collectors (Garden City, 1931).

¹³³Bland, op. cit., pp. 202, 256, 227, 124, 140, 222 respectively.

¹³⁴Starr, Fellows & Co., op. cit., opening pages.

¹³⁵Catalogue, plate 32.

¹³⁶Ibid., plates (respectively): title page, 30, 29, 28, 10, 7.

¹³⁷Ibid., plate 31.

¹³⁸Gerdts, op. cit., p. 54.

- 139 Catalogue, plate 22.
- 140 Ibid., plates 23-25.
- 141 Ibid., plates 17, 26, 27, 33.
- 142 Ibid., plates 8, 11, 12, 32.
- 143 Ibid., plates 4, 6, 10-13.
- 144 Ibid., plates 8, 9.
- 145 Ibid., plates 1-3.
- 146 Ibid., plates 34, 12.
- 147 Lichten, op. cit., p. 93.
- 148 Collection of Stephen Dennis, Washington, D. C.
- 149 Hooper, op. cit., figure 108.
- 150 Collection of Harry Van Dyke, Livingston Manor, New York.
- 151 Peter Cuffley, A Complete Catalogue and History of Oil and Kerosene Lamps in Australia (Victoria, Australia, 1973), p. 31.
- 152 Collection of Charles V. Swain, Doylestown, Pennsylvania.
- 153 A labeled version of this lamp by Cornelius is in the collection of Donald L. Fennimore, Associate Curator of Metals, Winterthur. A photo of it is in the D. A. P. C. files at Winterthur, No. 73.411.
- 154 Source for this is Craig Littlewood, collector and lighting expert, Palmyra, New Jersey.
- 155 Collection of Marilynn Johnson Bordes Lessauer, New York.
- 156 Collection of Mr. and Mrs. J. S. Dietz, Cazenovia, New York.
- 157 Collection of Mr. and Mrs. R. E. Dietz III, Albuquerque, New Mexico; ex. collection of R. E. Dietz II, New York.
- 158 Collection at the Henry Ford Museum, Dearborn, Michigan; the name is E. P. Dodge, and is molded into the font just as on the two Dietz pieces (no accession number).
- 159 Collection at the Henry Ford Museum, Dearborn, Michigan (no accession number).

¹⁶⁰Collection of Mr. and Mrs. Gerry J. Dietz, Syracuse, New York.

¹⁶¹Collection of Mr. and Mrs. J. S. Dietz, Cazenovia, New York.

¹⁶²Collection of Professor Leo Herschkowitz, Long Island, New York. Also, collection of Mr. and Mrs. Gerry J. Dietz, Syracuse, New York.

¹⁶³Collection of Mr. and Mrs. R. E. Dietz III, Albuquerque, New Mexico.

¹⁶⁴Collection of Ethelinda Dietz Nichols (Mrs. Morton C.), Syracuse, New York.

¹⁶⁵Collection of Ulysses G. Dietz, Newark, Delaware.

¹⁶⁶Collection of E. D. Nichols, Syracuse, New York.

¹⁶⁷Collection of Joseph Butler, Tarrytown, New York.

¹⁶⁸Collection at the Henry Ford Museum, Greenfield Village (Daniel Webster House, front parlor), Dearborn, Michigan (no accession number).

¹⁶⁹Collection of Donald L. Fennimore, Associate Curator of Metals, Winterthur.

¹⁷⁰Formerly (as of 1974) in the collection of Robbins Hunter of Granville, Ohio. The lamp was sold to an unknown buyer just before Mr. Hunter's death in 1978.

¹⁷¹Collection at the Henry Ford Museum, Dearborn, Michigan (Accession No. 00.3.15727).

¹⁷²Collection at the Henry Ford Museum, Dearborn, Michigan (no accession number).

ILLUSTRATIONS



Fig. 1
Double house,
built c. 1820,
for John
Dietz, Jr., at
Burlingham,
New York. (Leaf
From the Past,
p. 5)

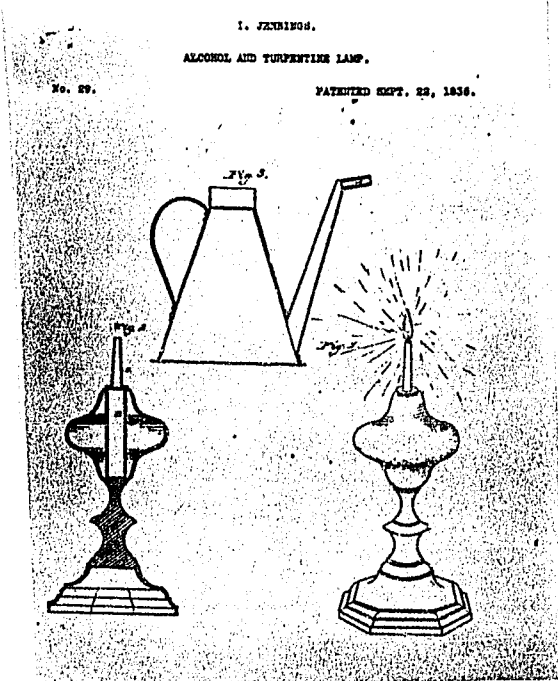


Fig. 2
Isiah Jennings's
lamp patents,
1836. (U. S.
Patent Office)



Fig. 3
1845 Directory
Advertisement.
(Leaf From the
Past, p. 78)

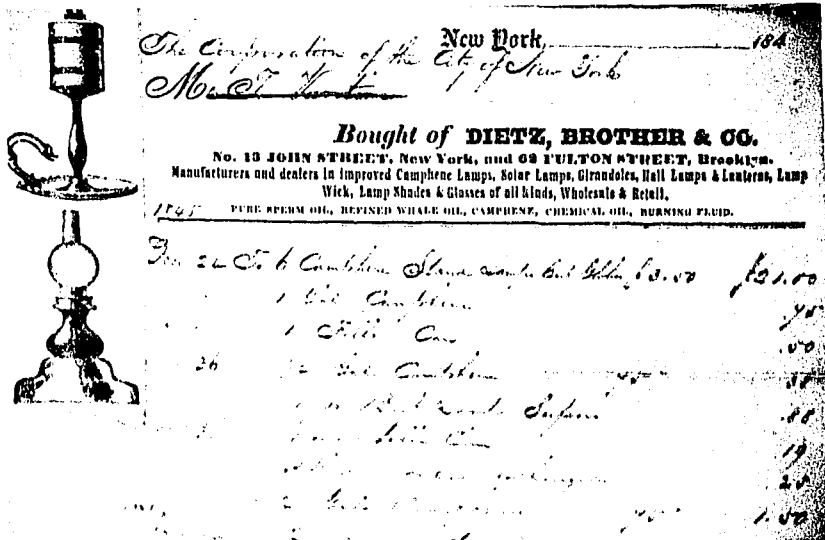


Fig. 4
Dietz, Brother &
Co. billhead,
private
collection.

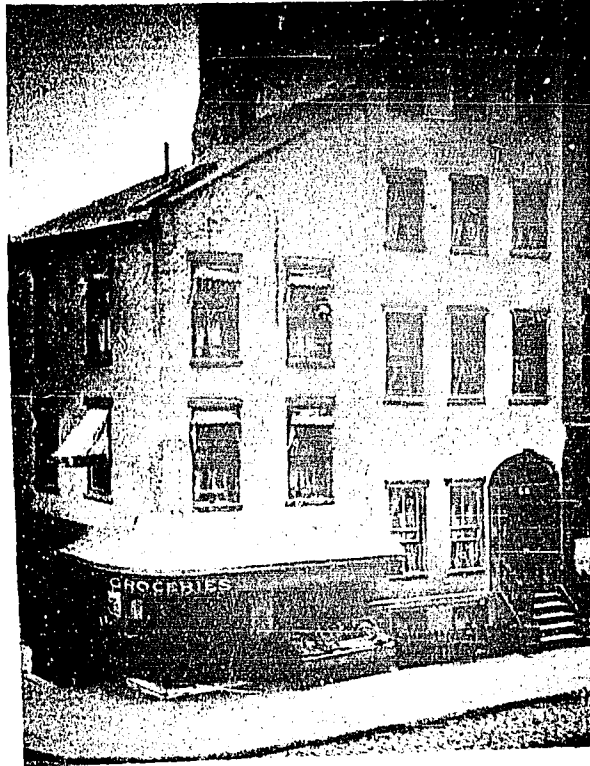


Fig. 5
R. E. Dietz house on
Beekman Street.
(Leaf From the Past,
p. 83)

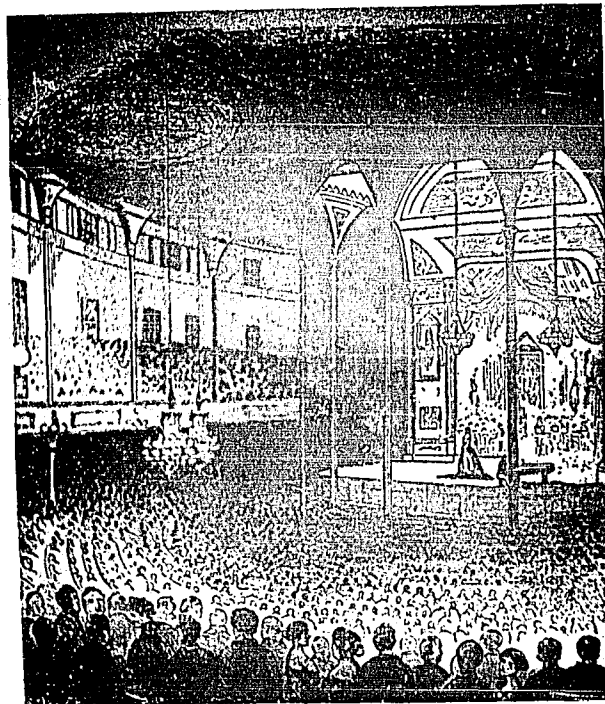


Fig. 6
View of Castle Garden
During one of Jenny
Lind's performances in
1850. Oil lamps and
chandeliers by Dietz,
Brother & Co. (Leaf
From the Past, p. 89)

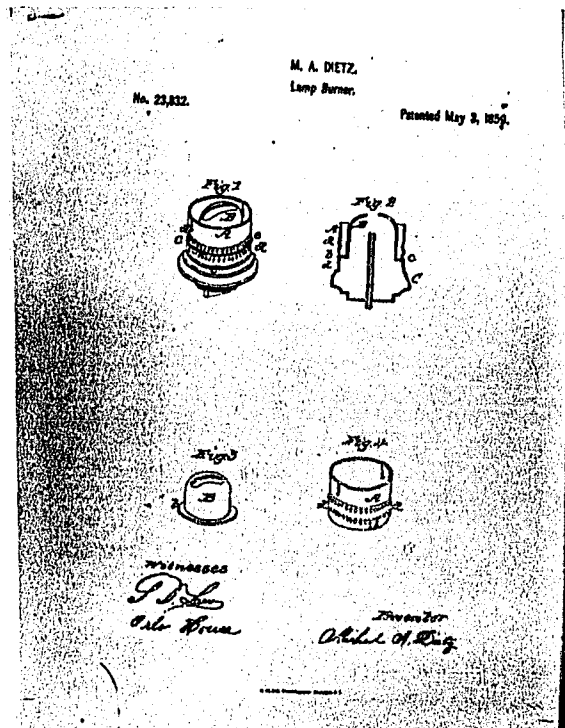


Fig. 7a
Michael Dietz's design
for a one-piece
deflector, 1859.
(U. S. Patent Office)

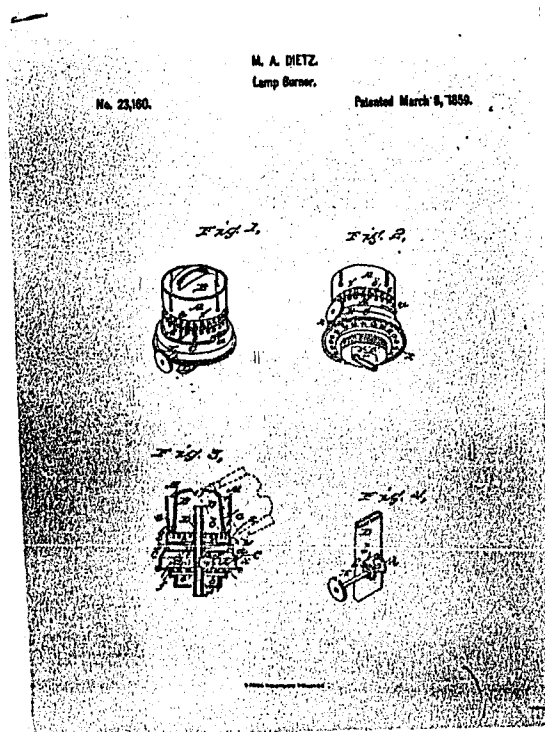


Fig. 7b
Michael Dietz's design
for a new kerosene
burner, 1858/59.
(U. S. Patent Office)

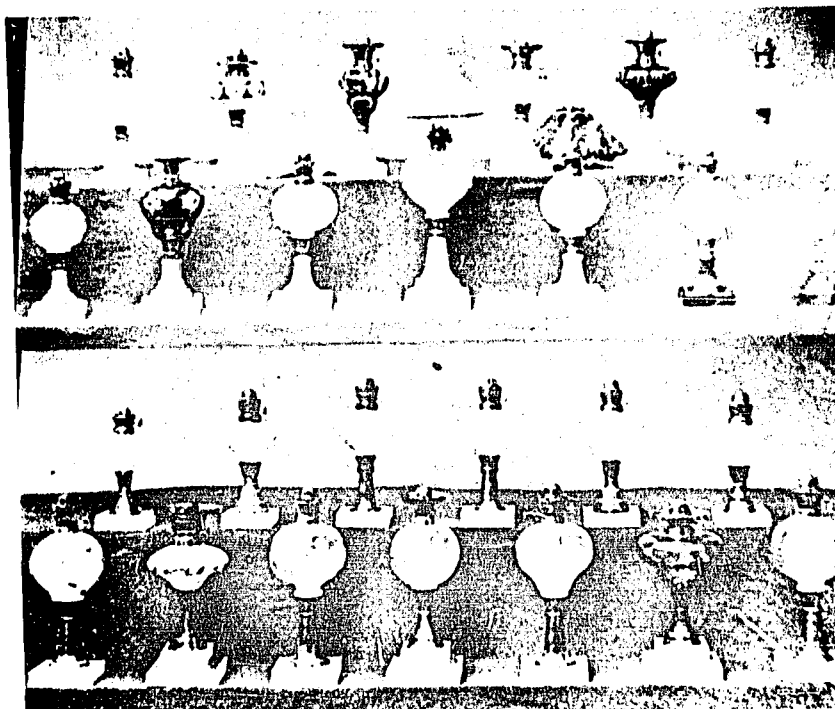


Fig. 8a
1866 lamp
selection,
Dietz and
Company.

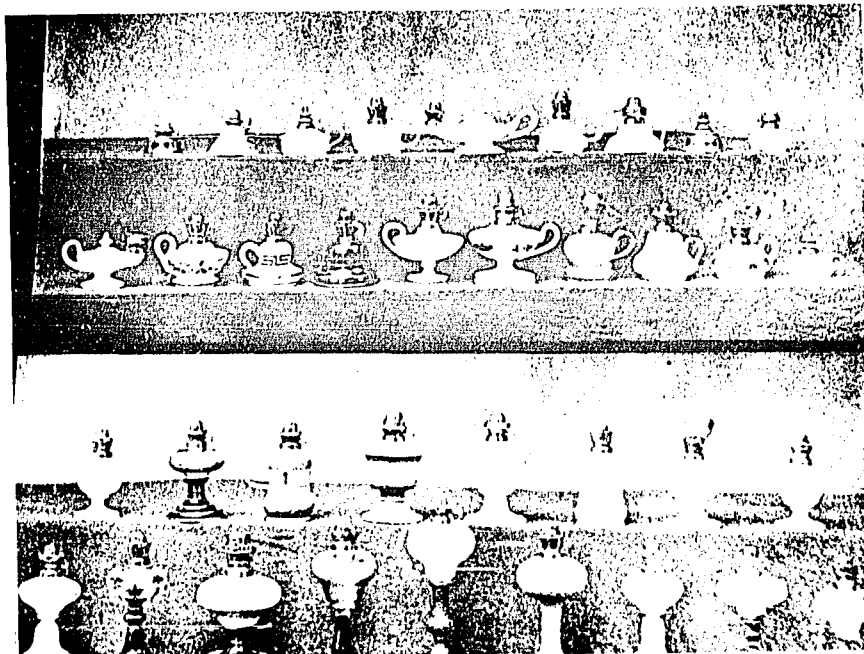


Fig. 8b
1866 lamp
selection,
Dietz and
Company.

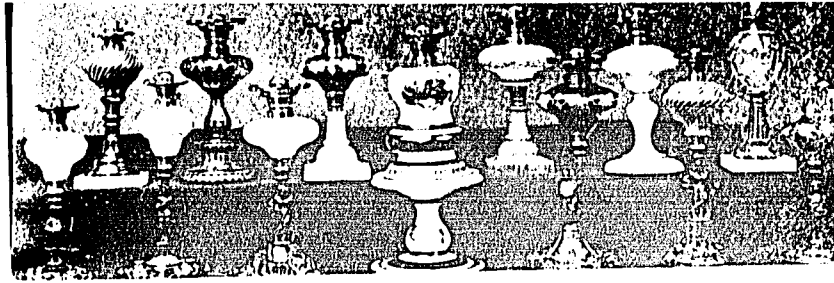


Fig. 8c
1866 lamp
selection,
Dietz and
Company.

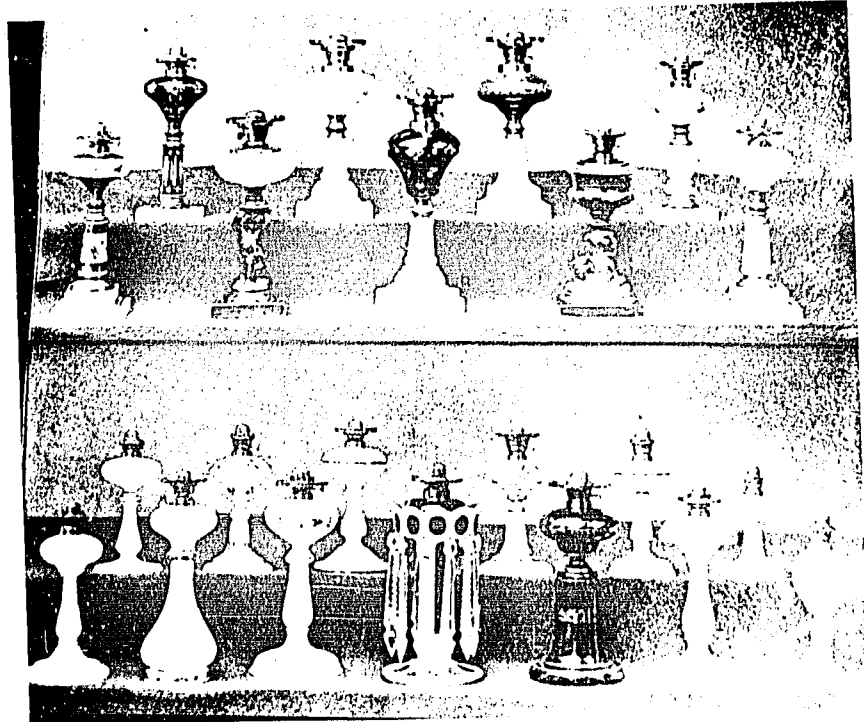
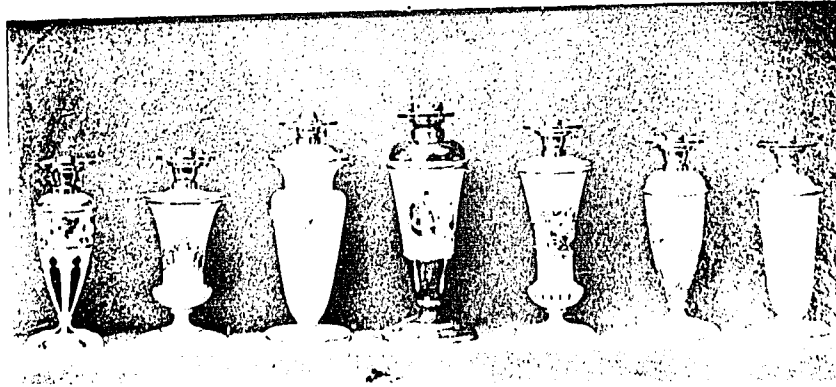


Fig. 8d
1866 lamp
selection,
Dietz and
Company.

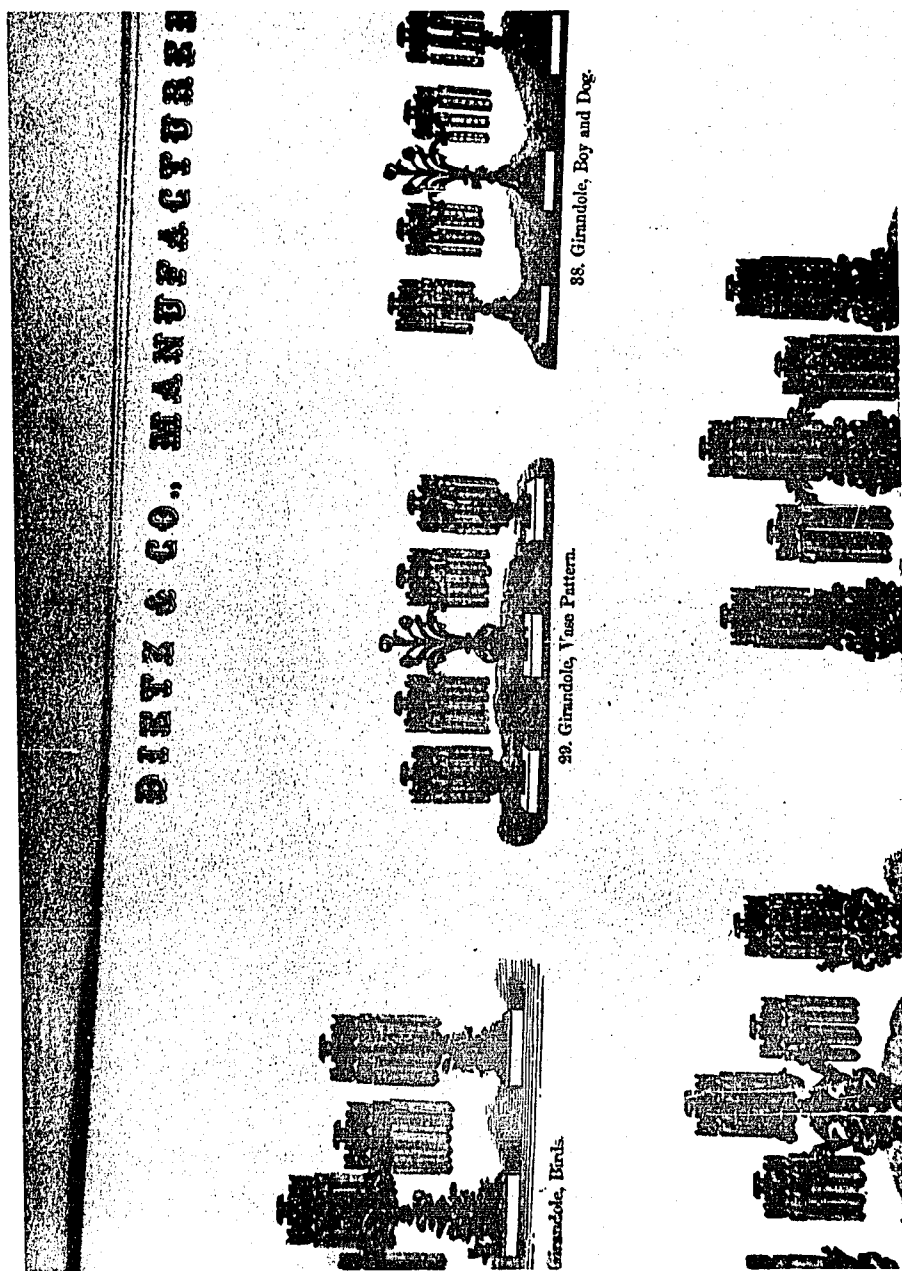


Fig. 9a Partial view, plate 35 of 1860 Dietz Catalogue.

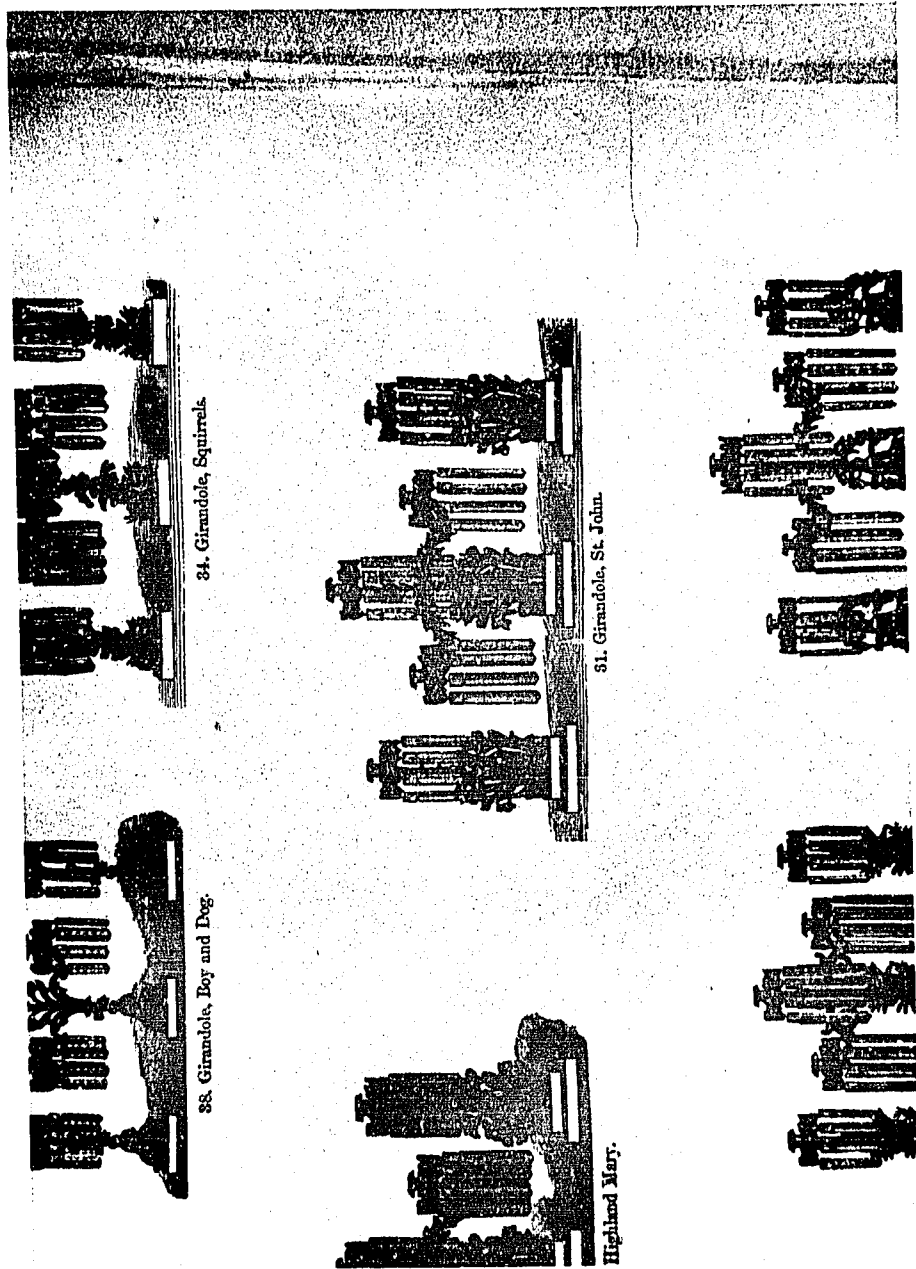
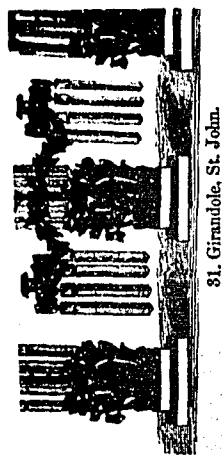


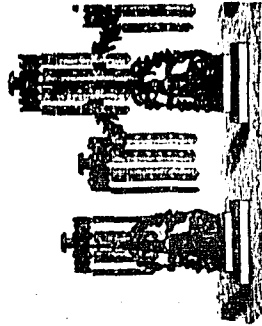
Fig. 9c Partial view, plate 35 of 1860 Dietz Catalogue.



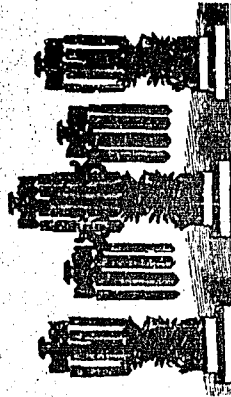
31. Girardole, St. John.



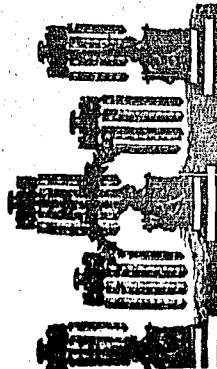
142. Girardole, Highland Mary.



206. Girardole, Jenny Li



155. Girardole, Paul and Virginia.



156. Girardole, Boy and Girl.

New York, U. S. A., and No. 4 St. Paul's Buildings, Little Carter Lane, London, E

Fig. 9d Partial view, plate 35 of 1860 Dietz Catalogue.

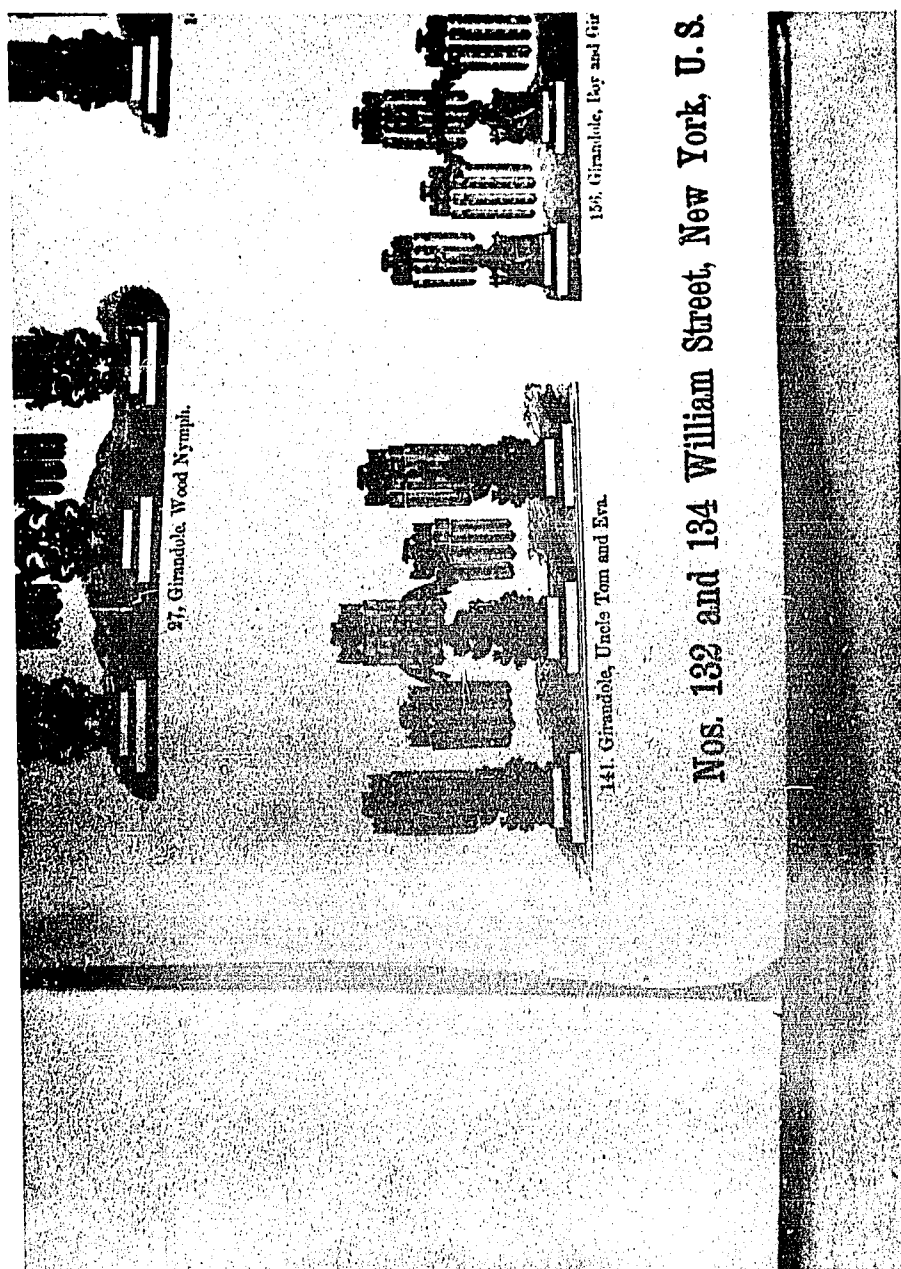


Fig. 9e Partial view, plate 35 of 1860 Dietz Catalogue.

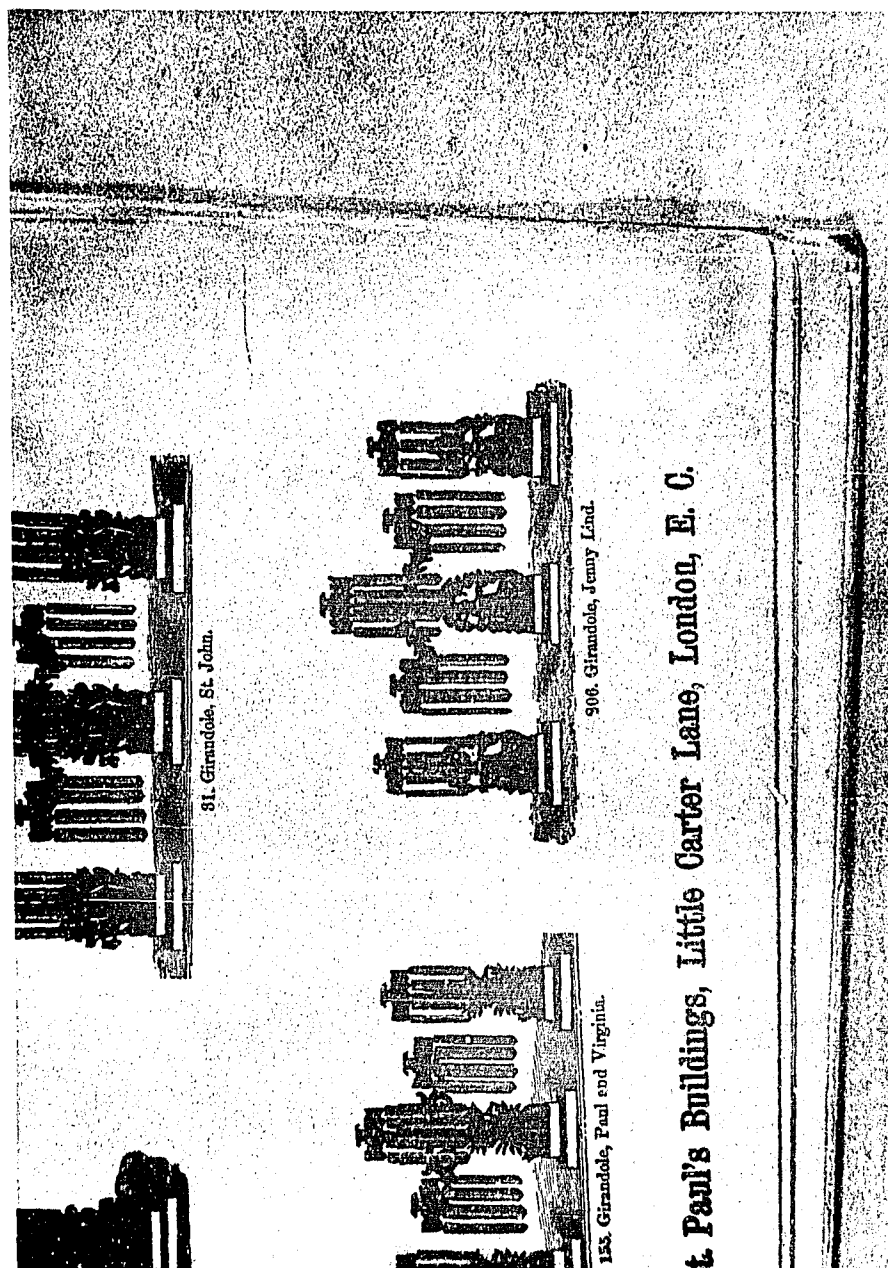


Fig. 9f Partial view, plate 35 of 1860 Dietz Catalogue.

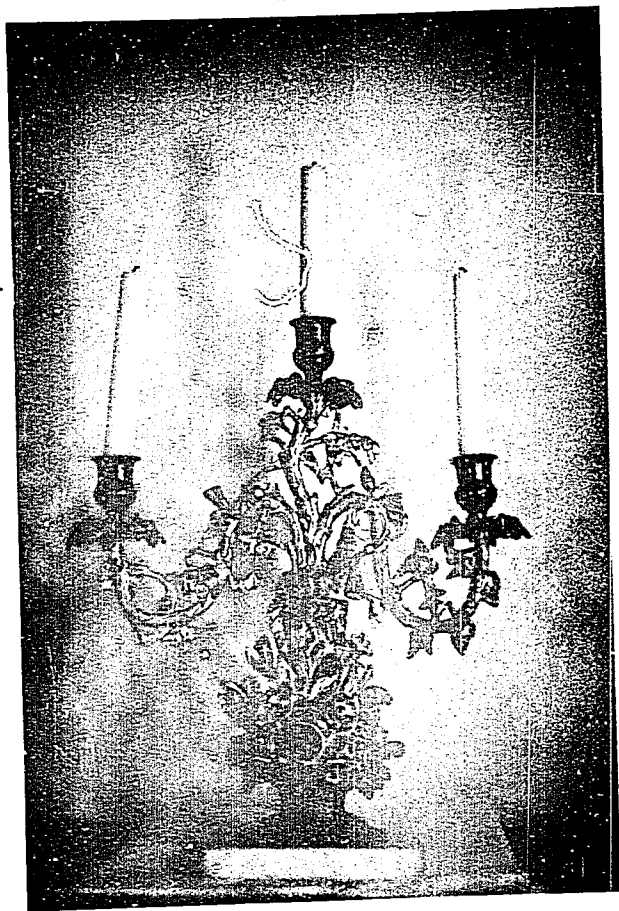


Fig. 10a Dietz flower basket girandole.
One of a pair, private
collection.

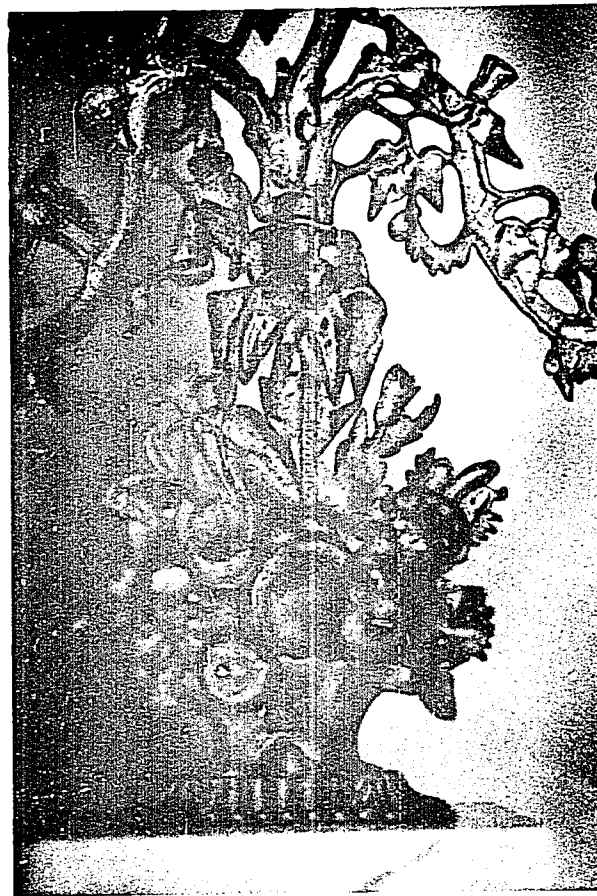


Fig. 10b Detail of mark: DIETZ,
BROTHER & CO.



Fig. 10c Unmarked Dietz flower basket girandole.
 (Courtesy Buena Vista Conference Center)

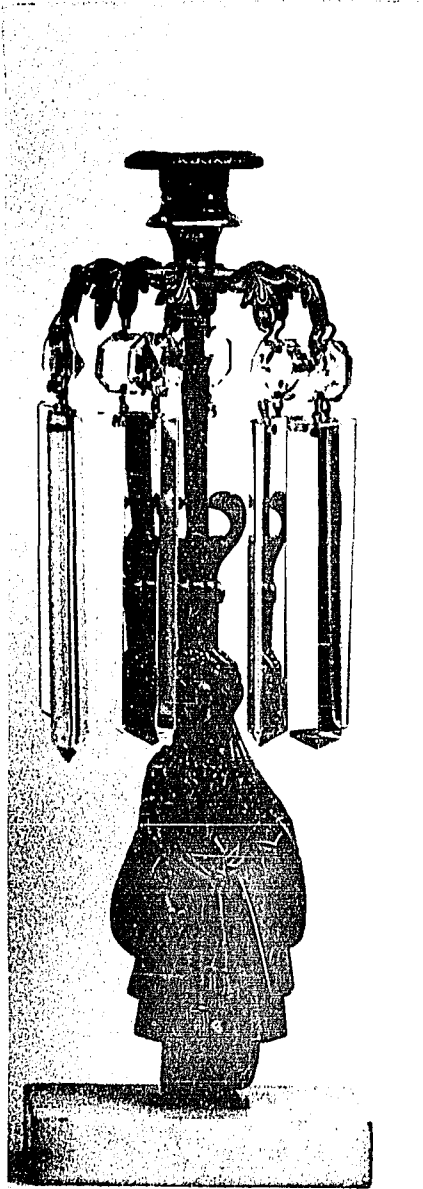


Fig. 11 Dietz (?) Persian
girl girandole.
One of a pair.
(Sleepy Hollow
Restorations)



Fig. 12 Boy and Dog Girandole. One of a pair. (Courtesy Buena Vista Conference Center)

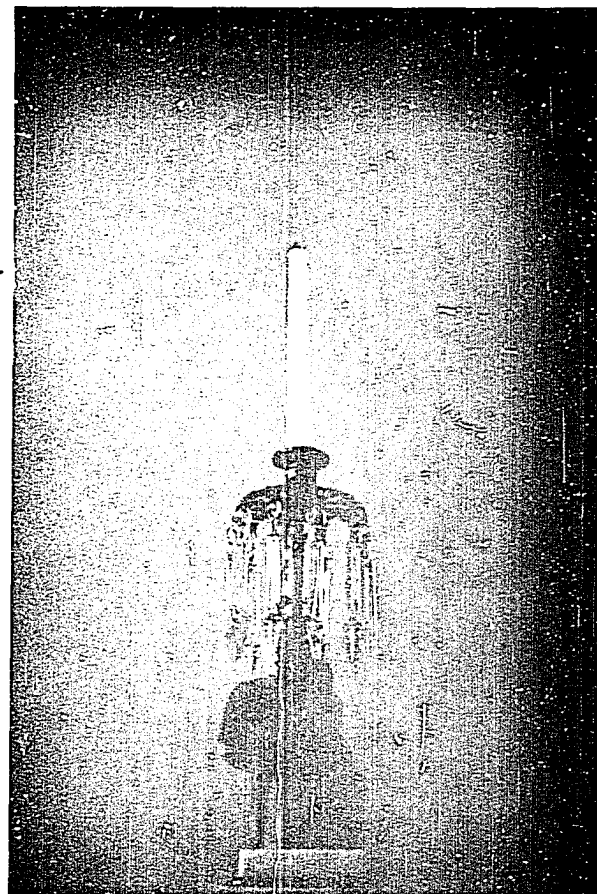


Fig. 13 Elizabethan Couple Girandole with cold-stamped mark. One of a pair, private collection.



Fig. 14 Boy and Girl Girandole.
(Plate 99, Hayward)

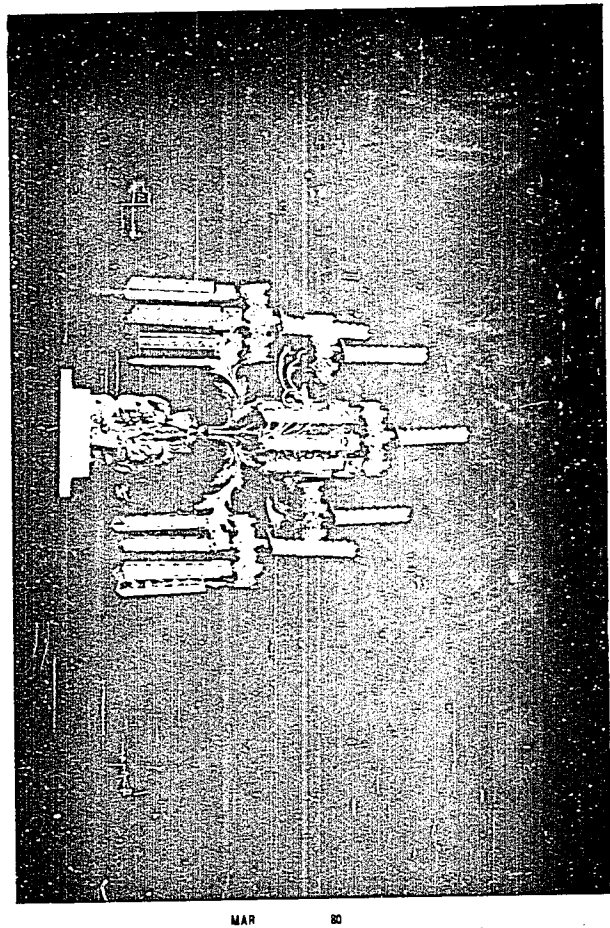


Fig. 15a Robinson Crusoe Center
Girandole, private collection.

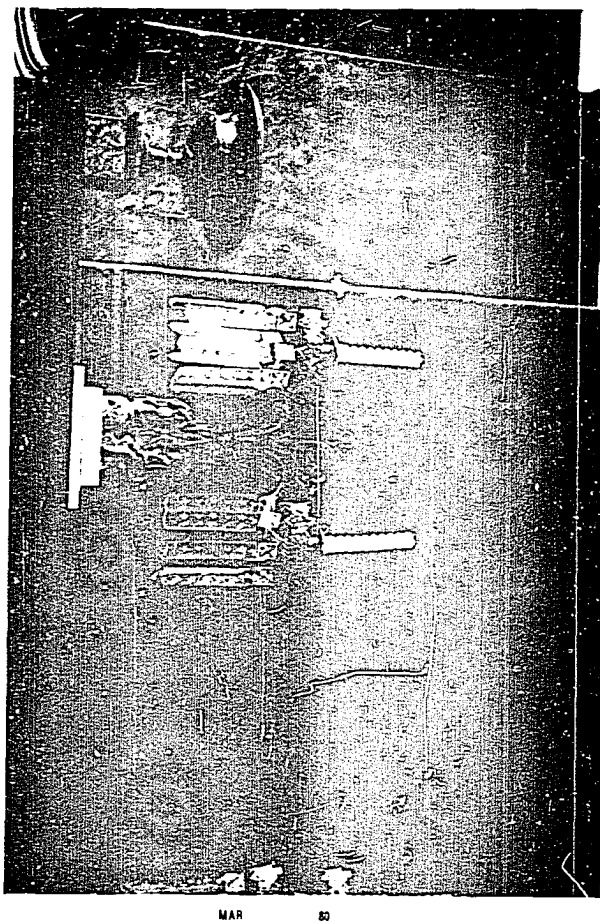


Fig. 15b Robinson Crusoe Girandole with Triple Flower Motif. One of a pair, private collection.

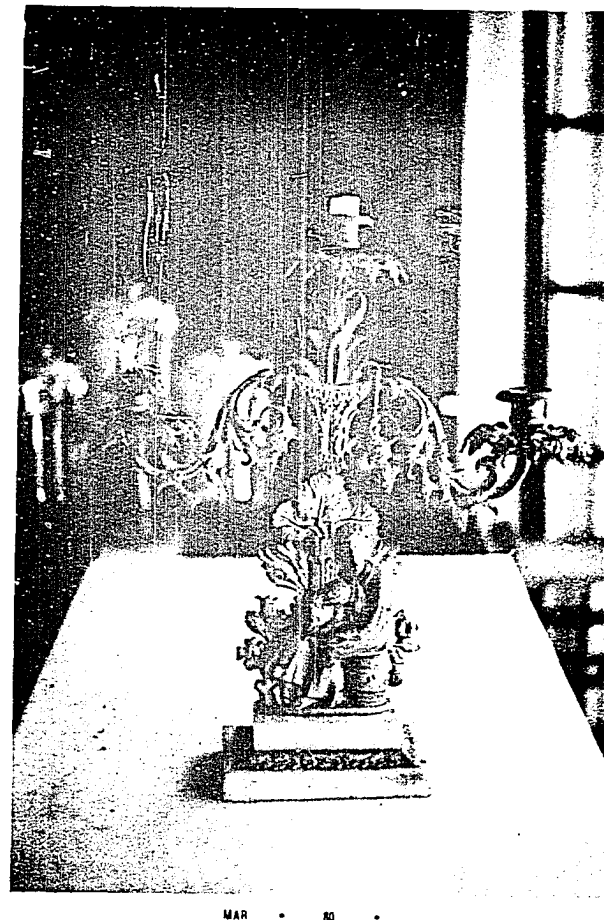


Fig. 16a Uncle Tom and Eva Girandole, private collection.

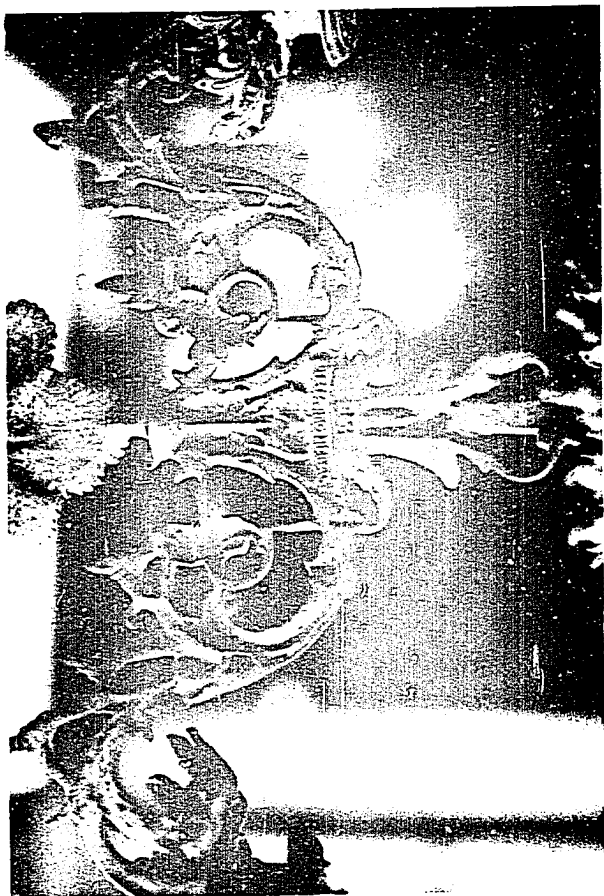


Fig. 16b Detail of Mark on Uncle Tom and Eva Girandole.

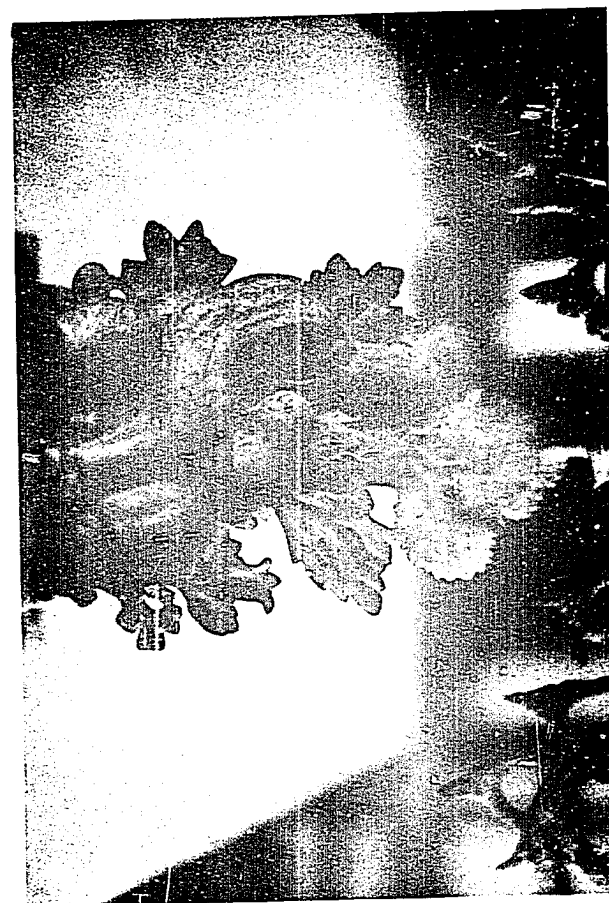


Fig. 16c Patent Mark on Uncle Tom and Eva Girandole.

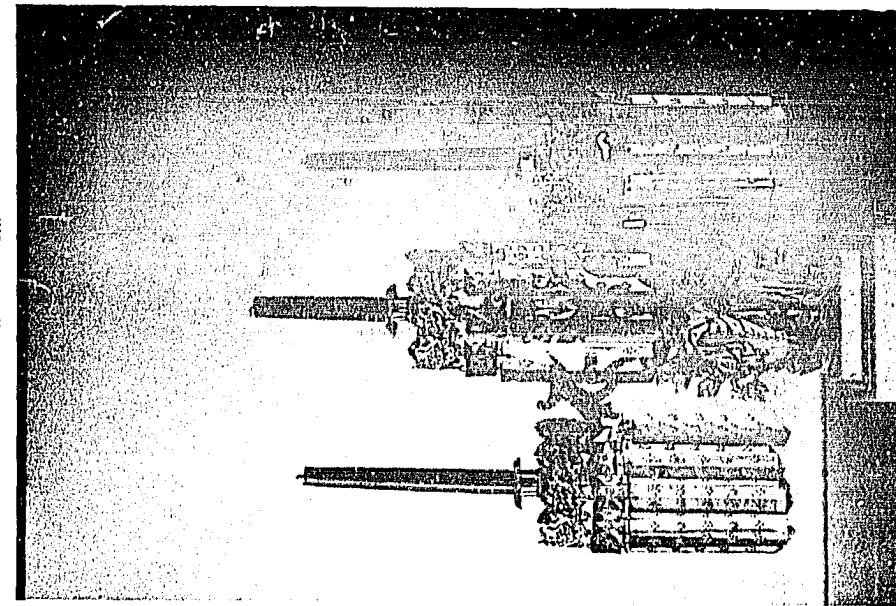


Fig. 17a St. John Girandole
Centerpiece, Silvered,
private collection.

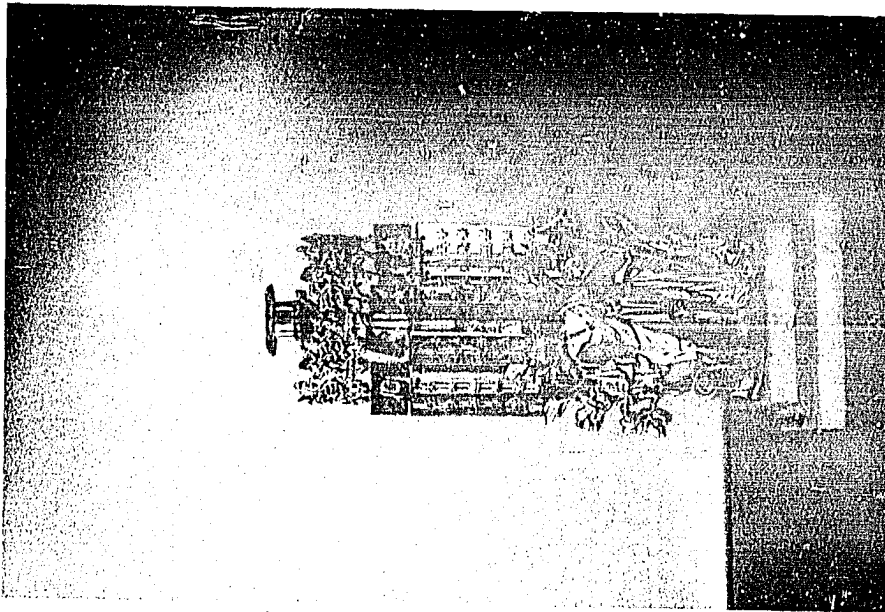


Fig. 17b St. John Girandole. One of
a pair, private collection.

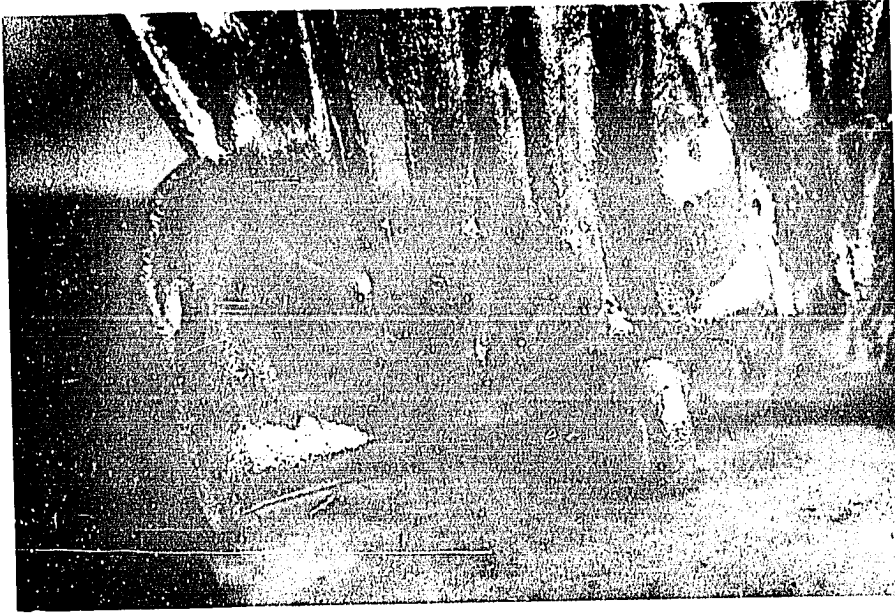


Fig. 17d Detail of Patent Date on
St. John Girandole.

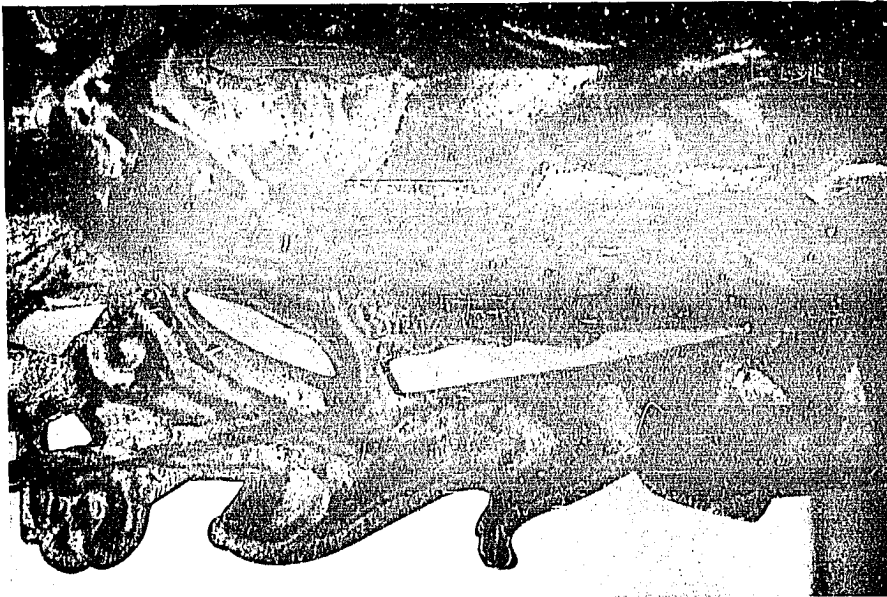


Fig. 17c Detail of Patent Mark on
St. John Girandole.



Fig. 18 Lajos Kossuth Girandole, Patent Design, 1853. (U. S. Patent Office)

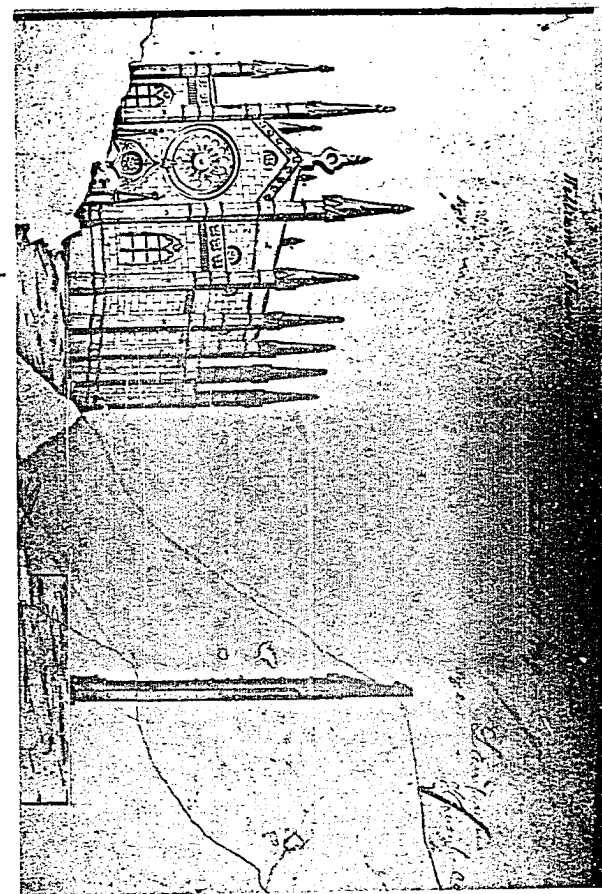


Fig. 19 Mount Auburn Chapel Girandole by SHAW, 1849. (U. S. Patent Office)

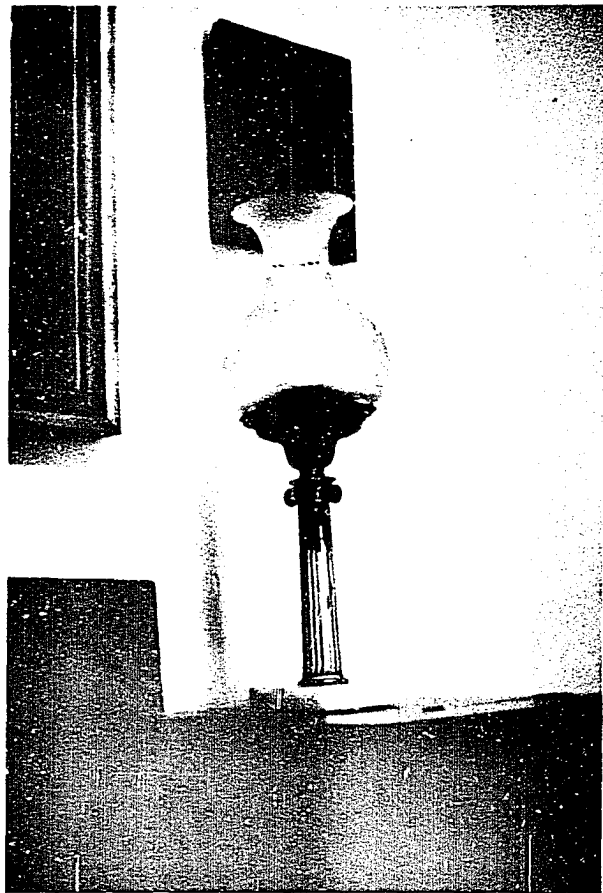


Fig. 20 Ionic Lamp with Addressed Dietz Label from 1847-1855. (Western Reserve Historical Society)

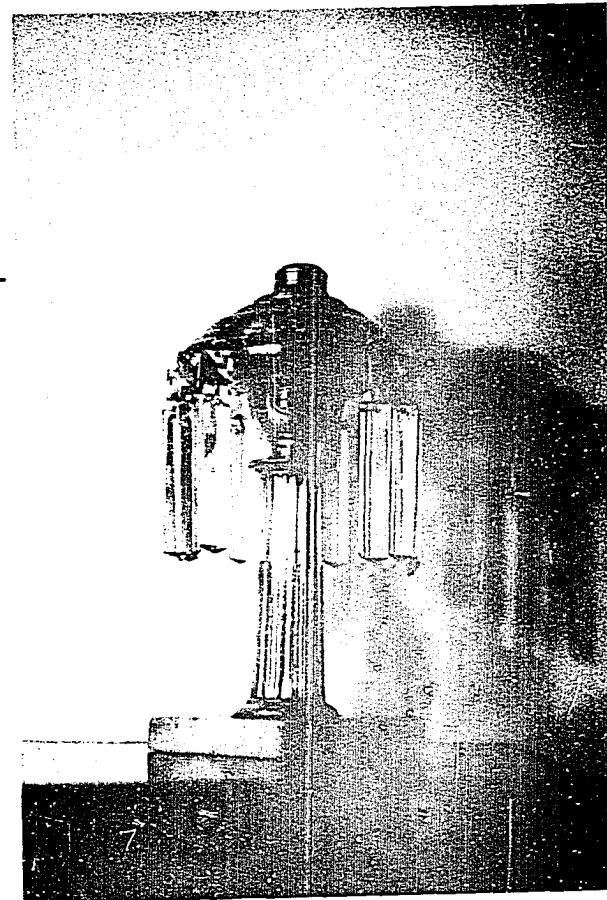


Fig. 21 Column Lamp with Addressed Label, private collection.

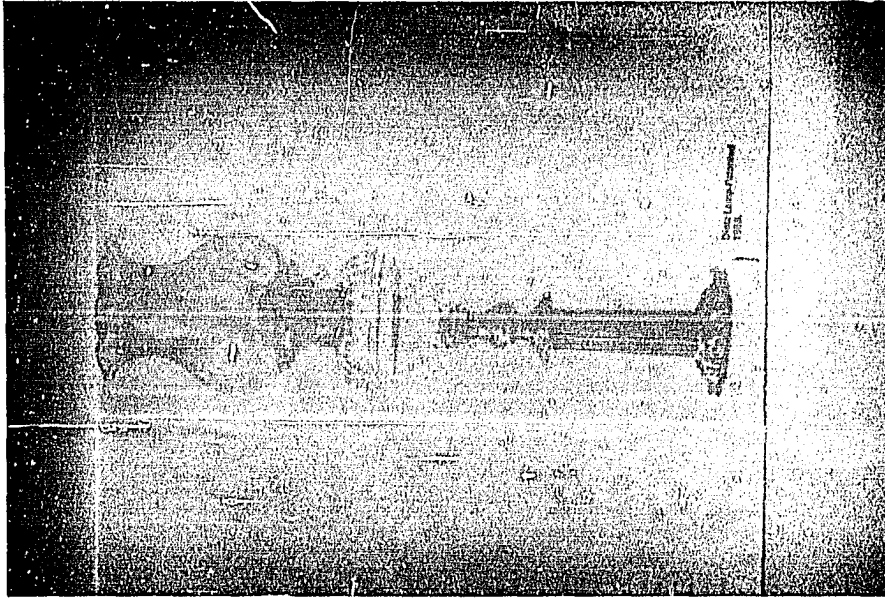


Fig. 23 Dietz Lamp, Australia.
(Cuffley, p. 31)

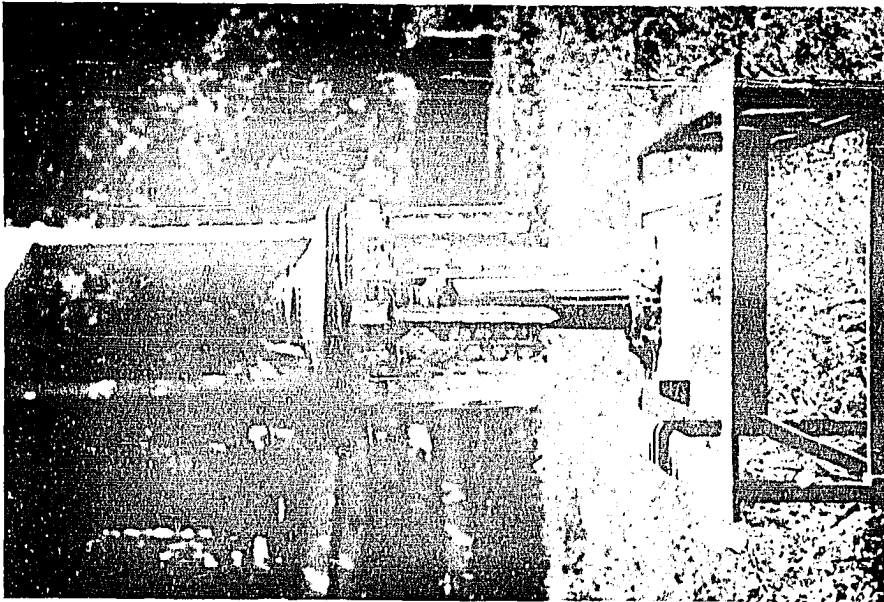


Fig. 22 Column Lamp with Rococo Foot
and Collar, private
collection.

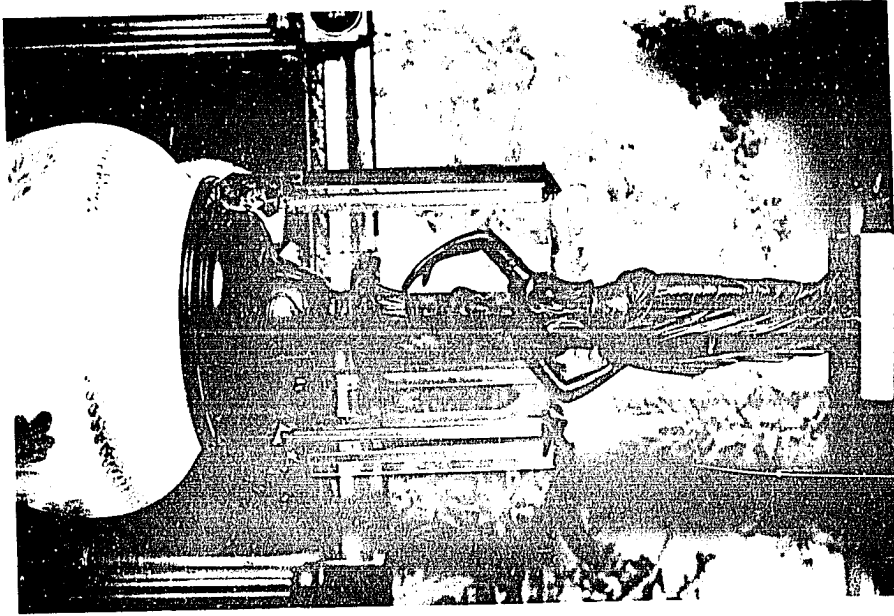


Fig. 24b Detail of Figure on Preceding Lamp.

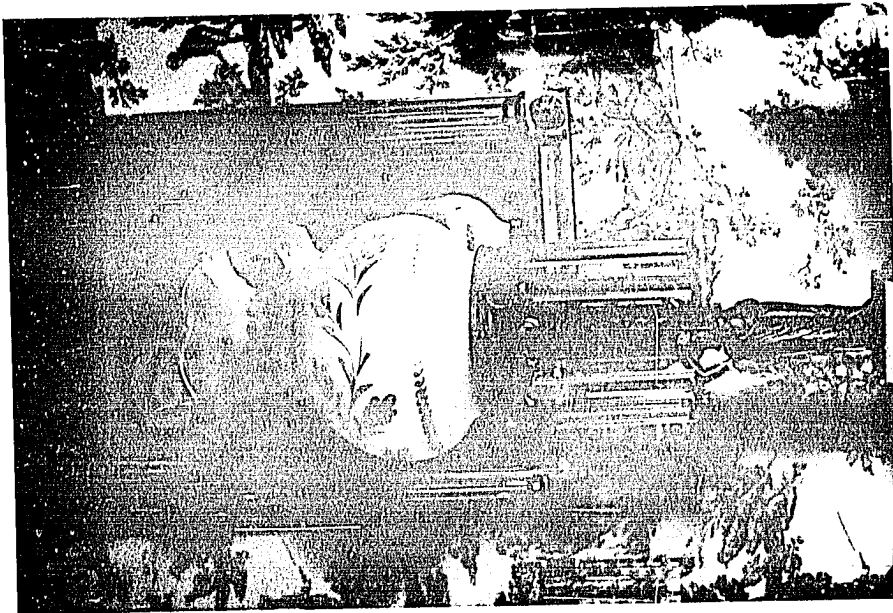


Fig. 24a Figural Lamp, private collection.

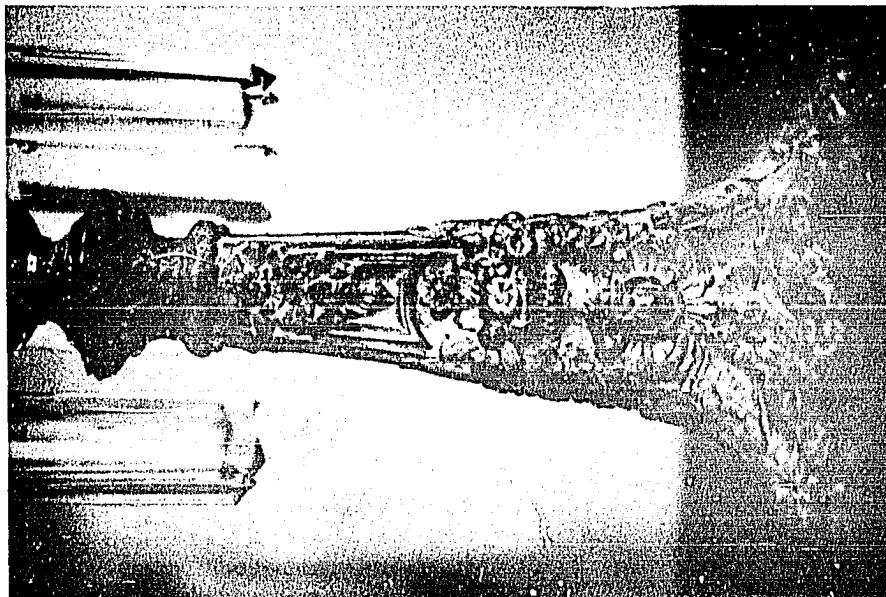


Fig. 25b Detail of Tripod Base.

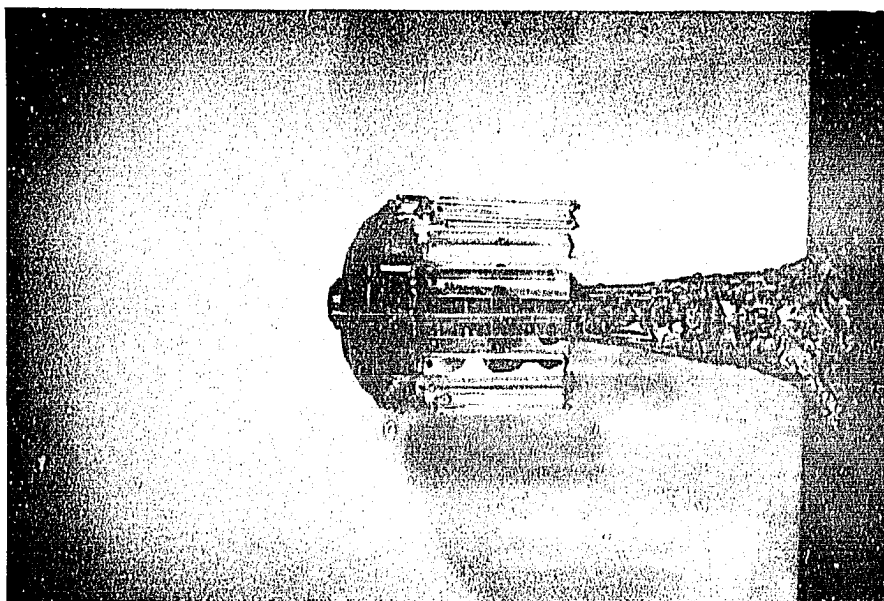


Fig. 25a Tripod Lamp, private collection.

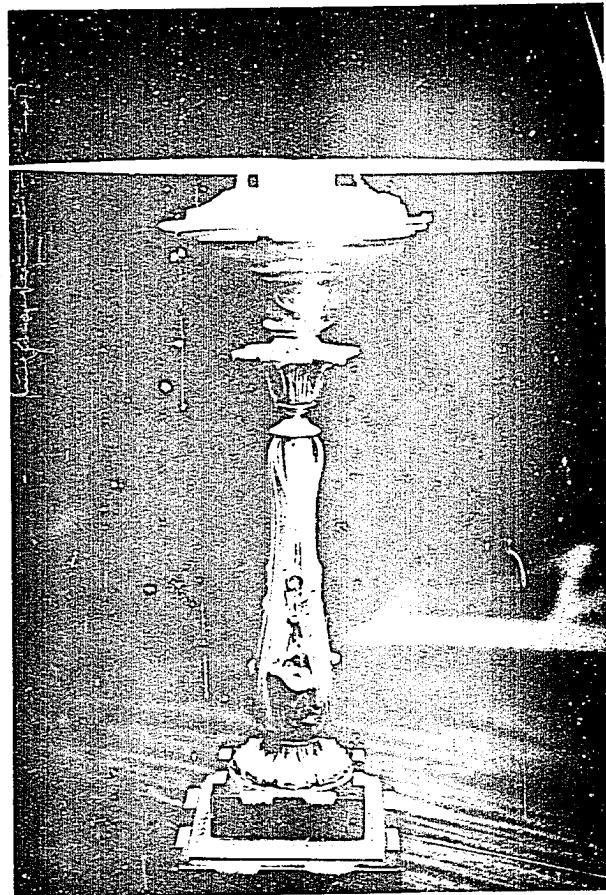


Fig. 26a Lily Lamp, with Addressed Label, private collection.



Fig. 26b Detail of Lily Motif.

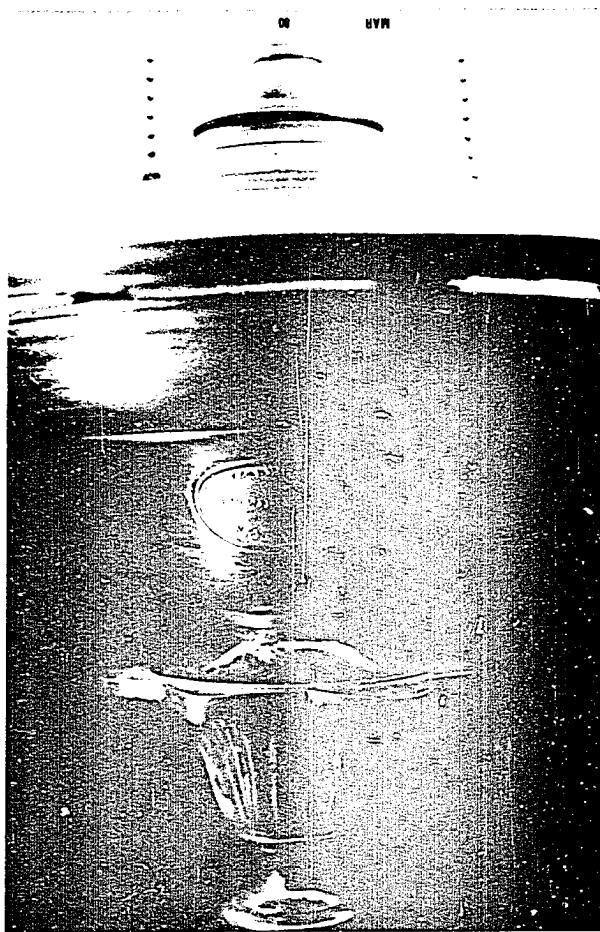


Fig. 26c Detail of Addressed Label
on Lily Lamp.

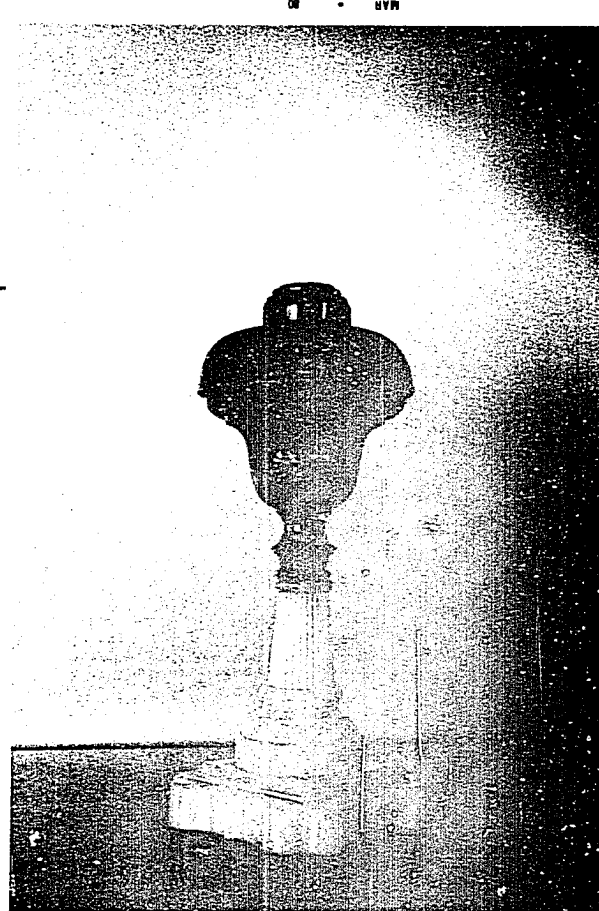


Fig. 27a Sandwich-type Marked Lamp,
family collection.

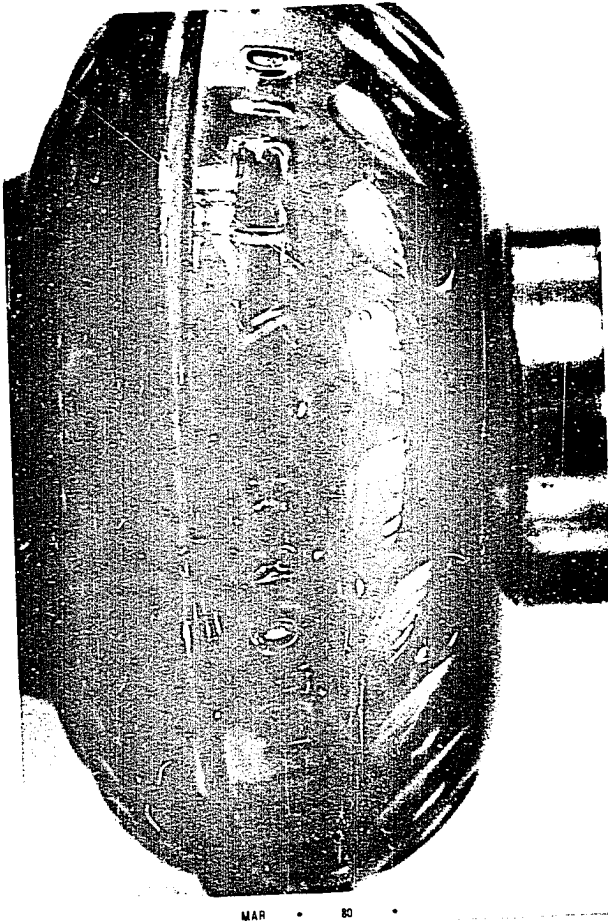


Fig. 27b Detail of Name on Font of Preceding Lamp.

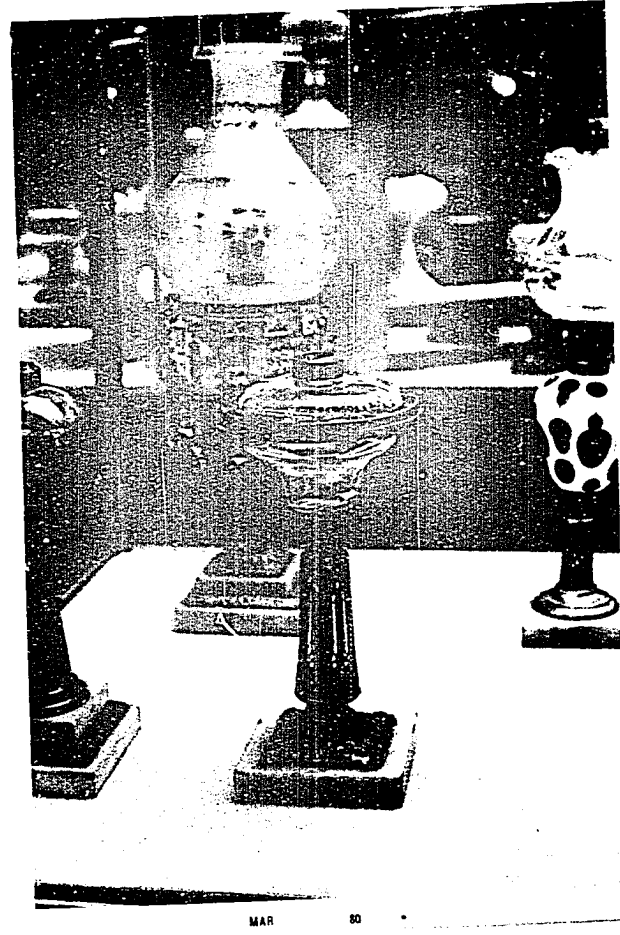


Fig. 28 F. E. Dodge Lamp with Name Molded Into Font. (Henry Ford Museum)

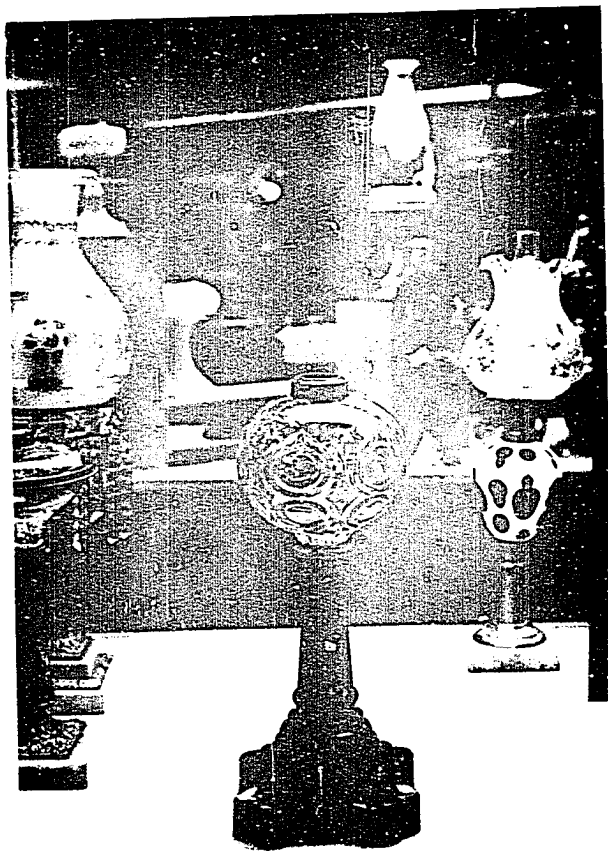


Fig. 29 Glass Lamp of Possible Dietz Origin. (Henry Ford Museum)

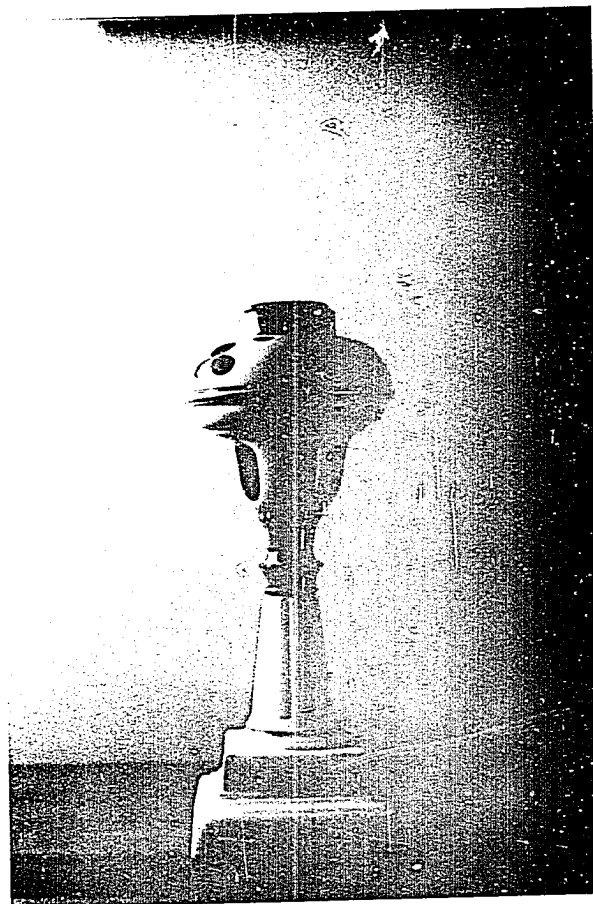


Fig. 30 Glass Lamp, Attributed to Dietz, family collection.

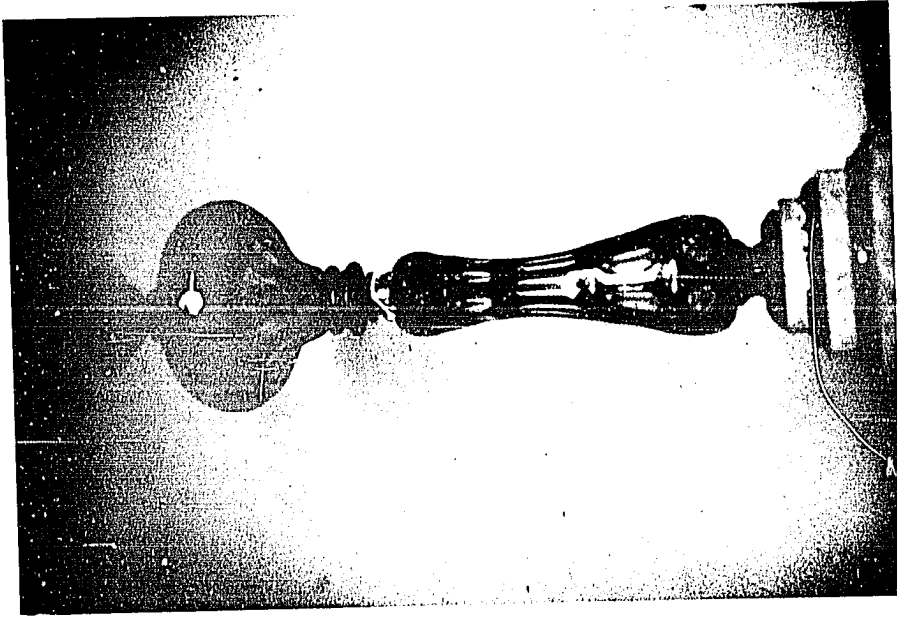


Fig. 32 Glass Lamp. (Western Reserve
Historical Society)

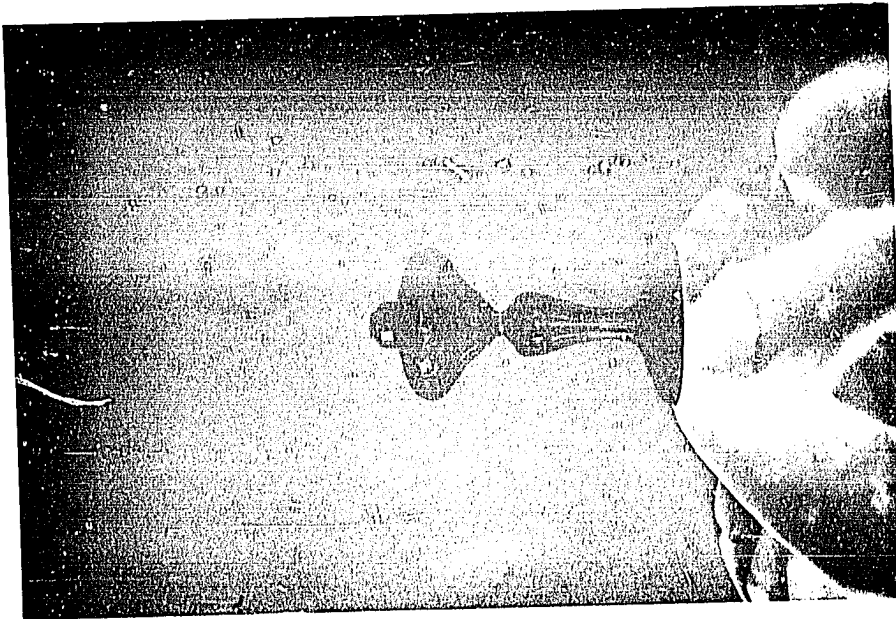


Fig. 31 Glass Lamp, Attributed to
Dietz, family collection.

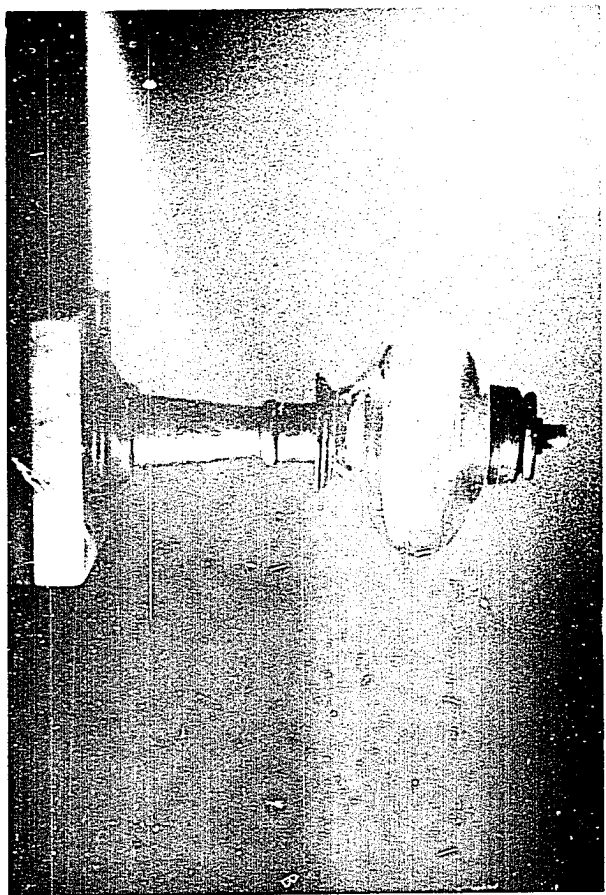


Fig. 33a Plain Dietz Lamp with Eagle Mark, private collection.

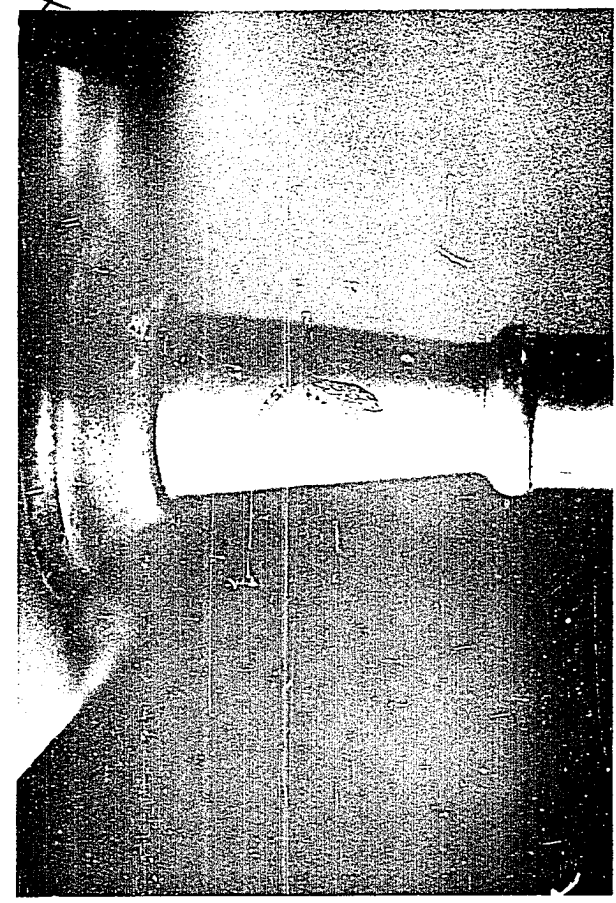


Fig. 33b Detail of Eagle Mark on Previous Lamp.

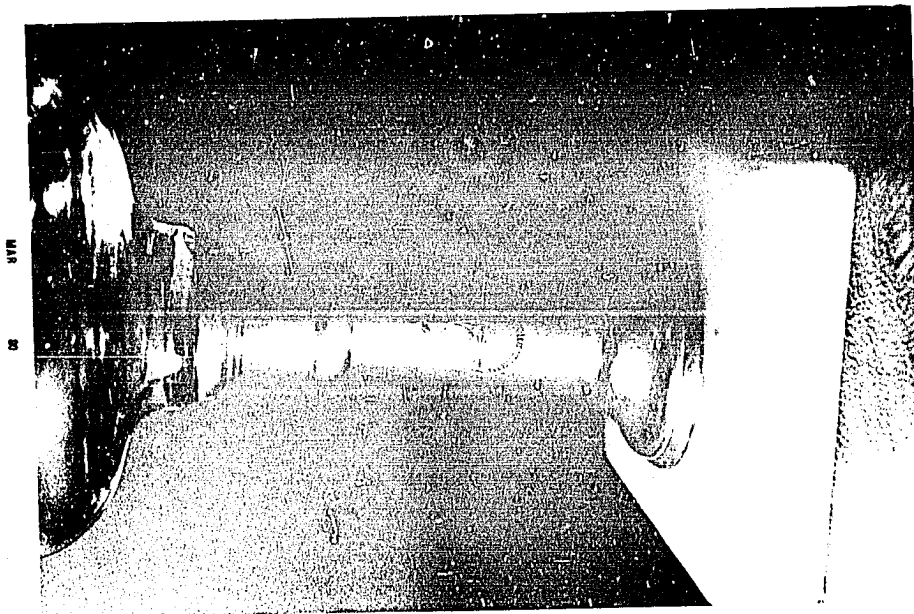


Fig. 34b Detail of Mark on Previous Lamp.

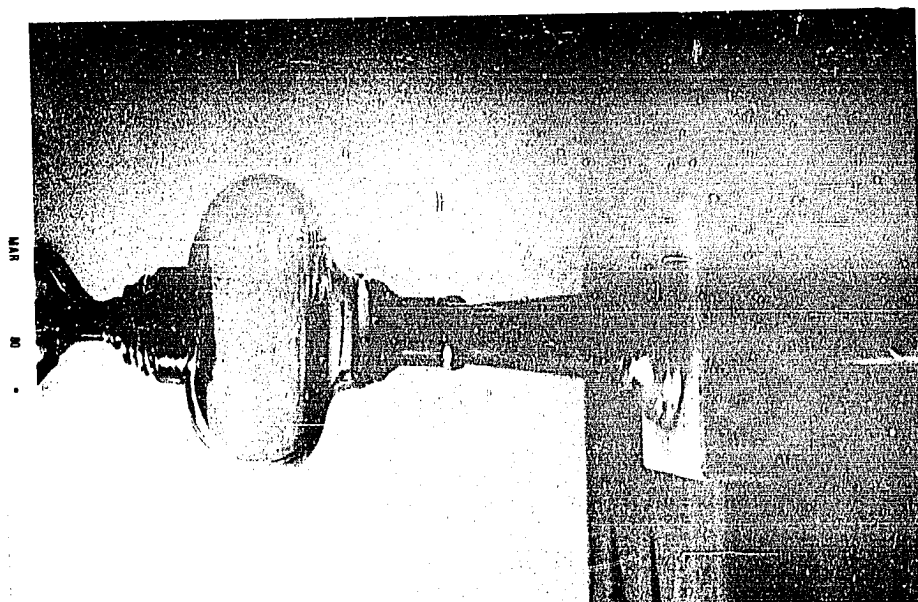


Fig. 34a Plain Dietz Lamp, with Eagle Mark, family collection.

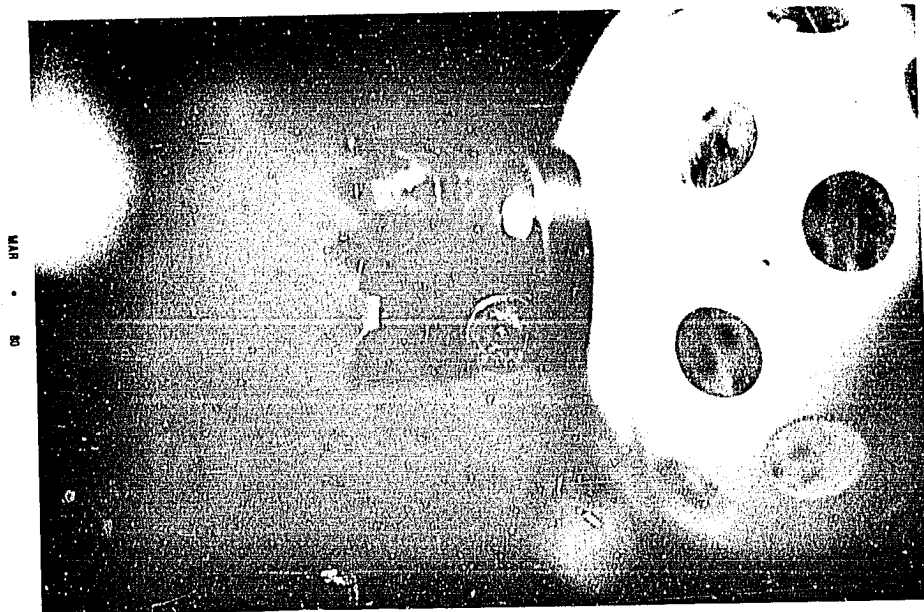


Fig. 35b Detail of Burner Stem, with
Patent Date.

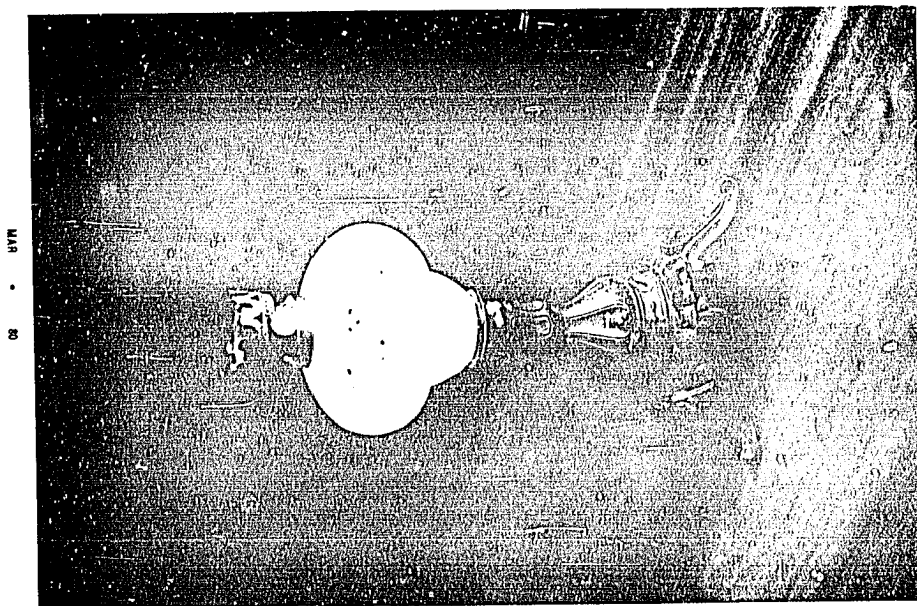


Fig. 35a "Bronze" Lamp with Marked
Burner Stem, family
collection.

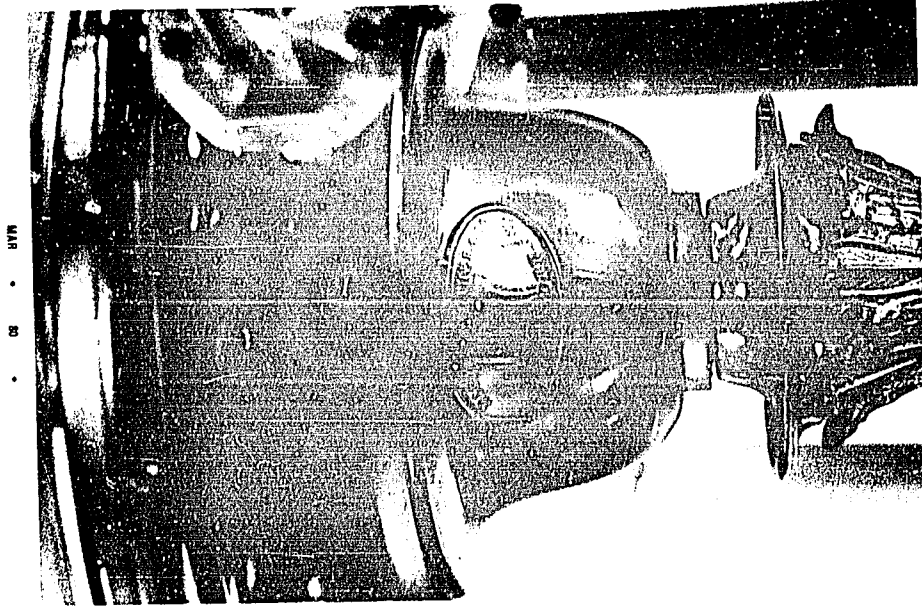


Fig. 36b Detail of Label on Previous Lamp.

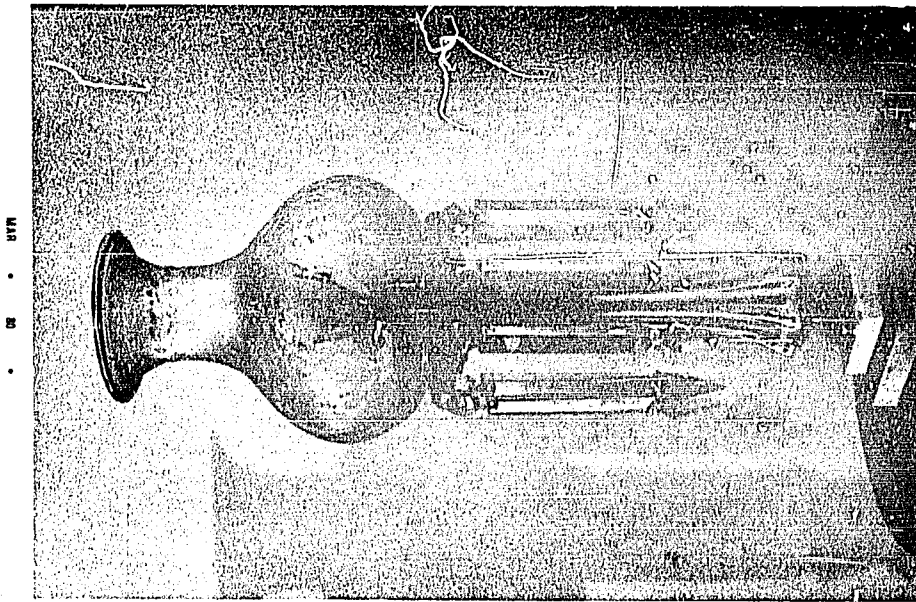


Fig. 36a Case-glass lamp, R. E. Dietz Co. collection.

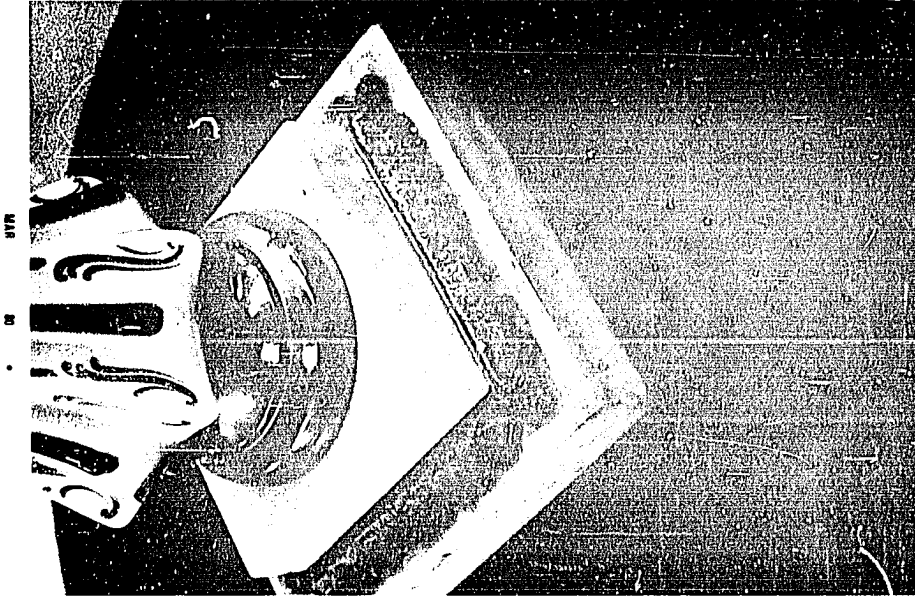


Fig. 36d Detail of Grapevine Molding
and Plain Foot.

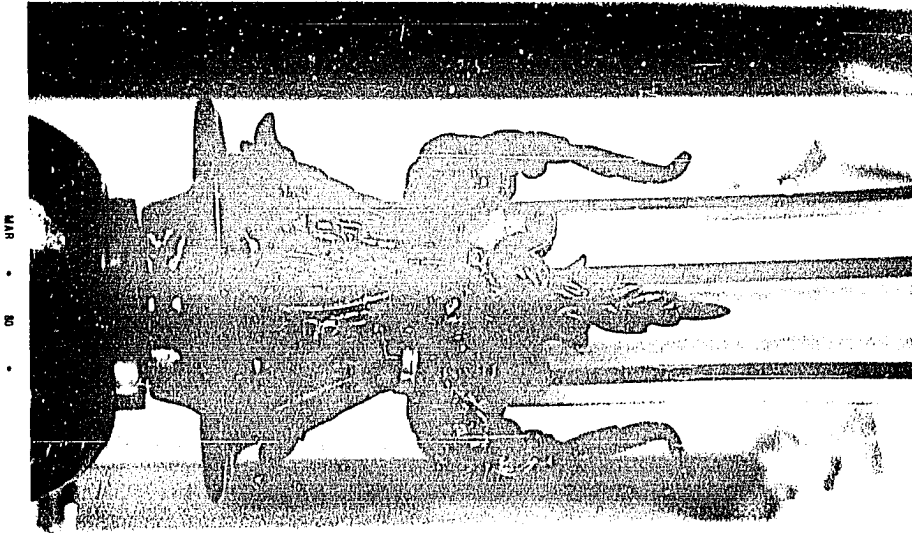


Fig. 36c Detail of Floral Drop Collar
on Previous Lamp.

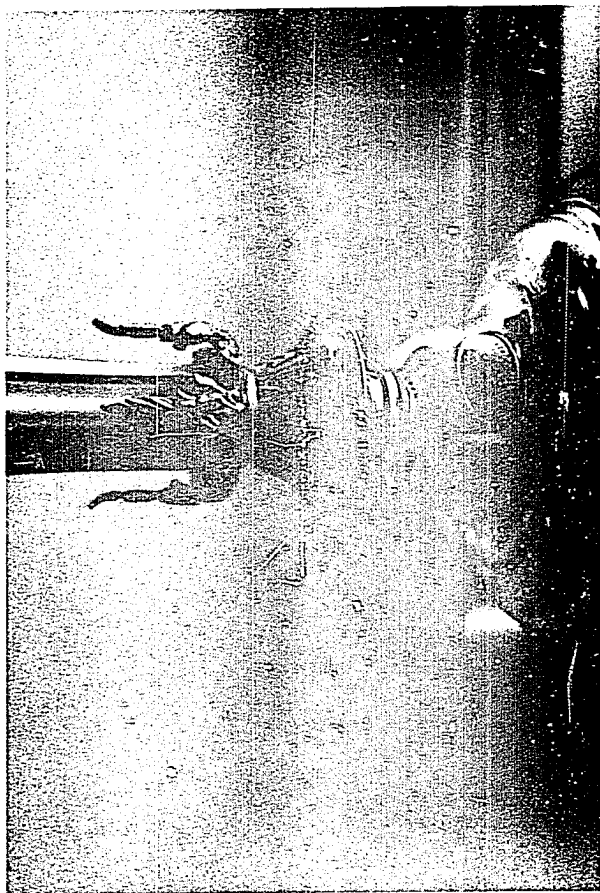


Fig. 37a Floral Collar on Labeled Lamp, collection of Joseph T. Butler.

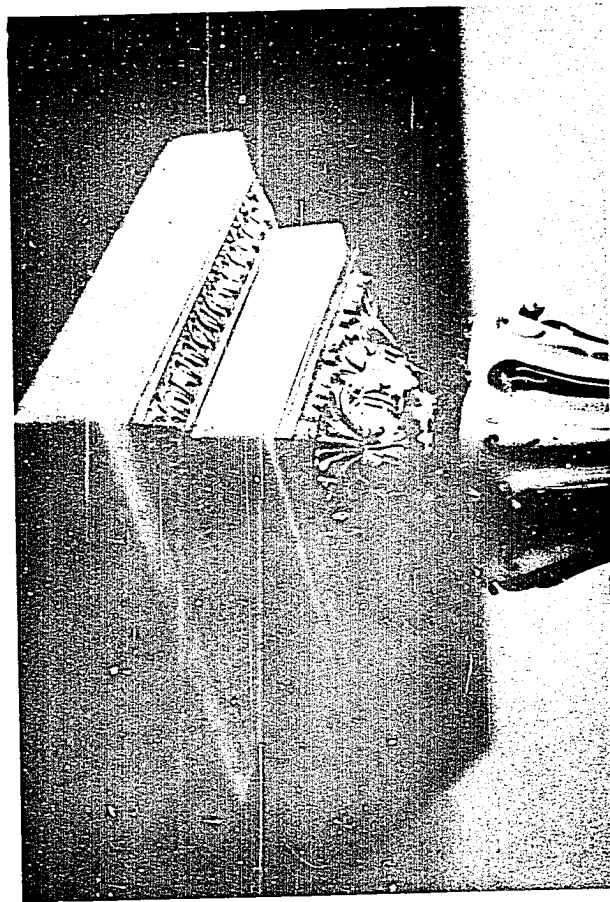


Fig. 37b Rococo Foot on Labeled Lamp, collection of Joseph T. Butler.

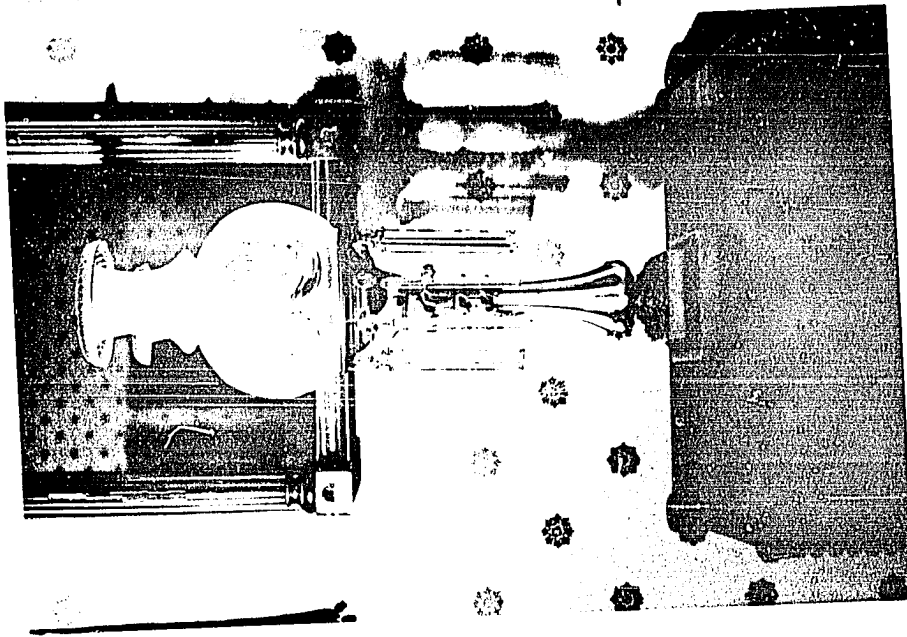


Fig. 38 Unlabeled Lamp, Attributed to Dietz. (Henry Ford Museum)

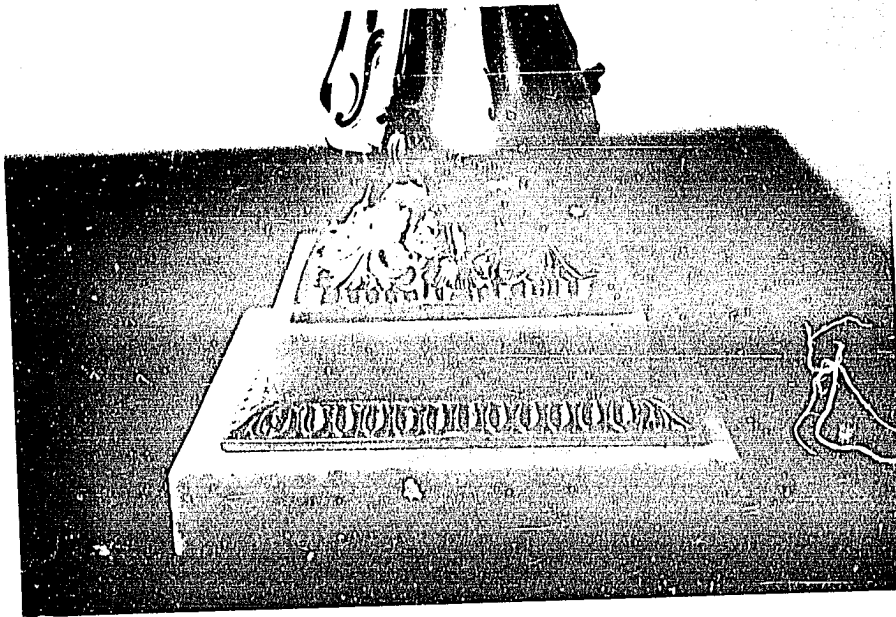


Fig. 37c Detail of Foot Molding on Labeled Lamp, collection of Joseph T. Butler.

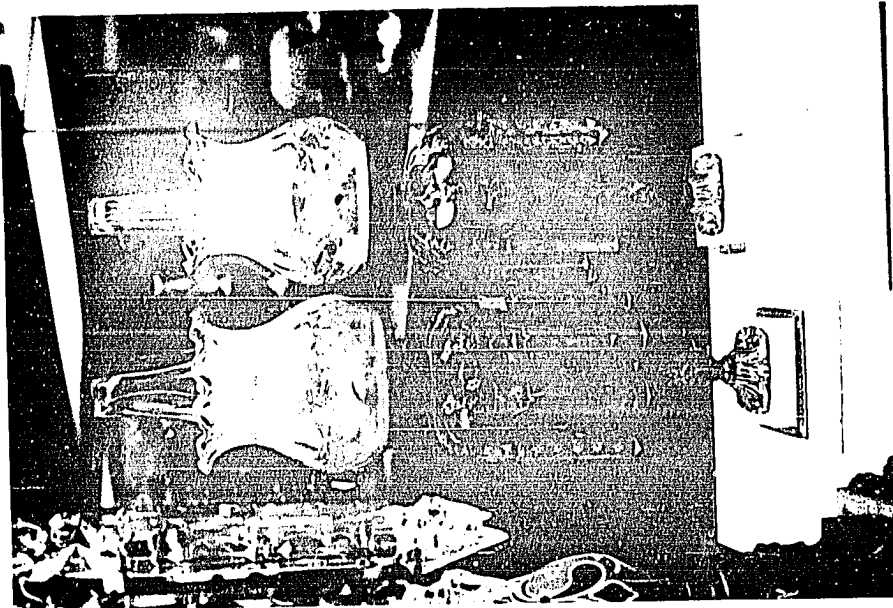


Fig. 40 Unmarked Lamps with Prism Rings. (Henry Ford Museum)

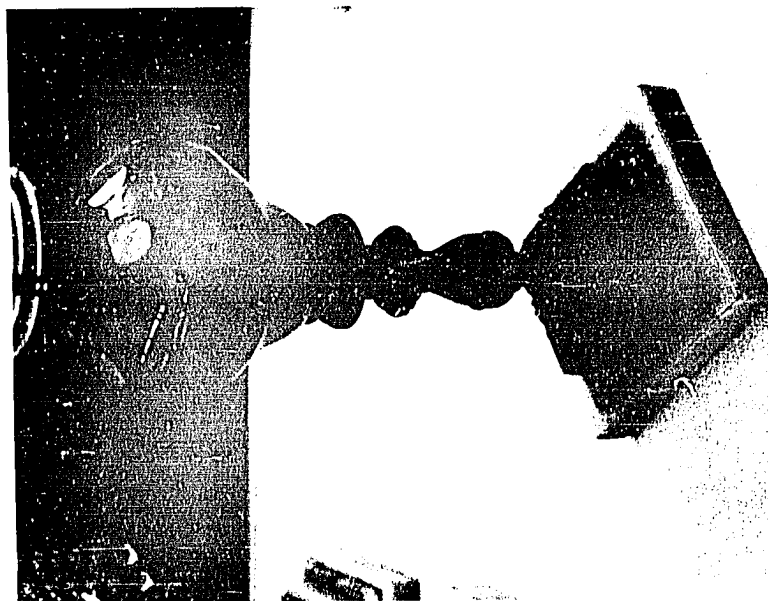


Fig. 39 Grapevine Molding on Unmarked Lamp. (Henry Ford Museum)

APPENDIX

UNITED STATES PATENT OFFICE.

MICHAEL A. DIETZ OF BROOKLYN, NEW YORK.

LAMP.

Specification of Letters Patent No. 23,160, dated March 3, 1859.

To all whom it may concern:

Be it known that I, MICHAEL A. DIETZ, of Brooklyn, State of New York, have invented a new and useful Improvement in Lamps, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, making part of this specification, in which—

Figure 1, represents a perspective view of the top of a lamp constructed on my improved plan. Fig. 2, a similar view showing the underside of the top. Fig. 3, a vertical section of the same. Fig. 4, a perspective view of the wick tube with the spindle and feed wheels.

My improvement relates more especially to that class of lamps with flat wicks which are provided with a deflector as now in general use for burning coal or carbon oil and other such fluids.

These lamps as heretofore constructed are in so far defective as that the flame is not perfectly steady and regular, and the light not always so clear and brilliant as might be desired, which in a great measure is to be attributed to the manner in which the air is supplied to the flame. The fresh air from the outside as it enters at the sides through a series of apertures provided for this purpose in the chimney band, being repulsed at first by the heated air of the inside, rises up along the sides of the deflector, thus establishing a continuous current which flows only along the boundaries of the inner space under the deflector, thus only coming in contact and commingling with the gaseous products at the upper part of the flame above the wick:—no air, or at least but a very small portion, flowing in at the bottom of the flame close to the wick. Again as by the peculiar shape of the deflector or cone which incloses the wick tube, a large portion of the caloric produced by the flame is absorbed and retained by the burner, the wick tube becomes so highly heated that it causes the burning fluid to evaporate more rapidly than is necessary for the regular supply of the flame.

To obviate which defects is the object of my present improvement and it consists in forming the lower part of the top into an air chamber, near the bottom of which a series of holes are pierced for the admission of fresh air, and at the upper part of which a narrow aperture is left on each side of the wick tube, for the passage upward of the

air from the air chamber beneath, by means of which a continuous current is established running upward along the wick tube, cooling the latter as it passes up, and bringing the air to a proper temperature previous to its being brought in contact with the gaseous products of the oil at the lower part of the flame, which materially assists in producing a brilliant, steady and regular light.

To enable others skilled in the art to make construct and use my improvement I will now proceed to describe it in detail, omitting the description of such parts as are not essential to the full understanding of my present improvement.

In the accompanying drawing the chimney band (A) to which the cone or deflector (B) is secured is represented as being attached to the top (C) of the lamp, by means of a hinge joint (a) and provided with a double row of apertures (x and y) arranged the one above and the other below the groove (b) in which the flange of the deflector (B) is fitted and secured. Through the lower row (y) of holes air is supplied to the upper part of the flame at the top of the deflector, while the cold air which enters through the upper row (x) serves the purpose of insulating the glass chimney from the action of the heat evolved from the flame and cone or deflector—inasmuch as the heat of the flame as it ascends the chimney induces a strong current as well through the lower as upper row of holes. The chimney band (A) for this purpose being so formed as to present a sort of annular projection (c) on its inside immediately above the upper row of holes (x) to prevent the glass chimney from descending so far as to close their communication with its inner side. But as by constructing it in this manner alone, a sufficiency of oxygen is not supplied for the entire consumption of the oil as fast as it is generated into gas, the air only being brought into contact with it—save to a very limited extent—at the top of the flame, and as for the more thorough consumption of all oils, a sufficient amount of oxygen is required to be fed to the flame at its lower end: in order to raise the gases to the proper degree of heat to be entirely consumed when mixed with the requisite quantity of oxygen; and as the wick tube as heretofore secured to the top had no means attached to it for the purpose of keeping it cool, and hence becomes heated to such a degree as to gen-

erate gas from the oil faster than can be consumed: I have arranged and formed a chamber (d) immediately underneath the upper plate (c) of the top into which the
 5 fresh air is admitted through a series or row of holes (z) on its under side, whence it passes in a steady current up along the flat sides of the wick tube (D) and thence up into the lower part of the flame with which
 10 it mixes: it in its passage upward cooling the wick tube (D), and in turn being brought to the requisite degree of heat, or nearly so, to mix with the flame at its lower end, without cooling it to such an extent as
 15 to injuriously affect its burning, but on the contrary materially increasing the brilliancy of the light obtained, and consuming the smoke which would otherwise escape were these apertures and air chamber not so arranged.

In passing the air up along the wick tube from the air chamber: apertures (f) are formed on either side in the upper plate (c) for this purpose: corresponding apertures
 25 (f') being also formed in the lower plate (c'), connecting with the oil chamber of the lamp on the one side and the air chamber (d) on the other, so that in the event of any gas by the heat of the wick tube or top of
 30 the lamp, being generated inside of the lamp, it may pass off through the air chamber up alongside of the wick tube and mix with the flame along with the air and there be consumed: thus avoiding any disagreeable
 35 smell by its escape unconsumed into the room: this same passage also serving to conduct any oil which may happen to overflow the wick back into the oil chamber again.

40 On one side of the wick tube (D) two

lugs (g and g') are stamped out, of a suitable size and shape to form a support or bearing for the spindle (E) of the feed wheels (h), for which purpose they (the lugs) are bent outward at right angles to the
 45 wick tube or thereabout, and holes formed in them, into which the ends of the spindle (E) are then inserted and properly secured, that is to say in such manner that while they cannot be withdrawn, they will yet be
 50 free to rotate around their axes, so that by turning the spindle, the feed wheels being in contact with the wick, the latter may be raised or lowered as circumstances may require. By securing the spindle to the wick
 55 tube in this manner, instead of soldering, the former can not be disengaged from the latter no matter what amount of heat may be brought to bear upon it, which is a point of great practical importance.

Having thus described my improvement what I claim as new and desire to secure by Letters Patent is—

The arrangement of an air chamber (d) in the top of a lamp having a flat wick, 65 when said lamp is provided with a cone or deflector (B) for feeding air to the flame, and the air chamber (d) with a series of holes (z) for the admission of fresh air, and openings (f) for its passage upward along
 70 the sides of the wick tube, or their or either of their equivalents, in the manner and for the purposes substantially as set forth.

In testimony whereof, I hereunto set my hand to this specification.

MICHAEL A. DIETZ.

Witnesses:

CHAS. P. DIETZ.

EDWD. J. HAMILTON.

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