Fixed in Time

2014 edition

A guide to daguerreotype, ambrotype & tintype mats and cases for historians, collectors and antique dealers

Sean William Nolan

FIXED IN TIME

A GUIDE TO

DAGUERREOTYPE, AMBROTYPE & TINTYPE

mats and cases

WITH DATES FOR EACH, USEFUL TO

HISTORIANS,

COLLECTORS

AND ANTIQUE DEALERS

This Beta edition of *Fixed in Time* omits several chapters, and limits the tables of mat and case styles to sixth plates

A modest attempt to assist in dating early photographs, based on original research. Preceded by introductory chapters on the Daguerreotype, Ambrotype, & Tintype. Profusely illustrated.

SEAN WILLIAM NOLAN, PORTLAND, OREGON MMXIV

This book is a labor of love and a work in progress. I hope to issue annual updates. The latest version can be found at

www.facebook.com/fixed.in.time.book

If you would like to receive notice of new versions, email me at

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Please see the last section to read how you can help to make the next edition more accurate, complete and precise.

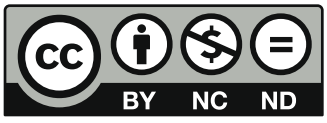
Fixed in Time

Beta edition
September 2014

All photographs from the author's collection unless otherwise indicated.

Cover by the author, composed from *San Antonio Beauty*, collection of the author, mat courtesy s j mcconnell / vintagephotosrus, case courtesy Greg French.

RadiantAntique font by Douglas Day
http://www.fontspace.com/douglas-day/radiantantique



for

 &  & 

This book would not have been possible without the assistance of the many collectors and antique dealers who shared photographs of their daguerreotypes, ambrotypes, and tintypes.

I would especially like to thank:

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INTRODUCTION

By writing this book, I hope to assist Historians, Collectors and Antique Dealers in accurately dating early American and British photographs. Before 1860, most photographs were stored in protective cases, under glass. Because the case and decorative mat styles changed constantly between 1840 and 1870, identifying the mat and case design can assist you in assigning a probable date, sometimes to within a year or two. The meat of this book is the extensive table illustrating hundreds of mats and cases, each identified by the years during during which they were used.

These dates are the result of my own research. For the past year and a half I have searched for cased daguerreotypes, ambrotypes and tintypes with known dates. I have located over 2,100, and base my dates for mat and case styles on this extensive data. While this is not the only book to help you date photographs, this book focuses exclusively on cased images and is more comprehensive in its coverage. Why has no one else similarly studied all objectively dated cased photographs? Because no one in their right mind would spend so much time searching the web and looking at 50,000 images, or trying to identify preserver styles from hundreds of blurry eBay photographs.

This book is a labor of love, or more accurately, a labor of love for pastry. It is *pastryware*; if you find it useful, visit and treat me to a pastry at my favorite French bakery in Portland, Oregon. If you are unable to visit, please send $4.75 so that I can enjoy my favorite, *Black Beauty*. Please send via PayPal to

seanwilliamnolan@gmail.com

Experienced collectors know that the estimated dates assigned to some early photographs are often inaccurate, even at prestigious institutions. For most people, this isn't important. Does it matter if a daguerreotype is misdated 1845 instead of 1850?

- It matters to historians and genealogists who want to identify sitters in early photographs. Among photographs of the same family, it may clarify family relationships.

- It matters to collectors who want to know as much as possible about the faces they collect. Is this woman in black a Civil War widow? Could this man be about to join the California gold rush?

- It matters to Antique Dealers who want to accurately describe their goods.

Knowledgeable historians, collectors and antique dealers who already know how to accurately date early photographs will still find this book useful. The dates I provide are usually more specific than those given elsewhere and are based on hard data. I have also discovered a few instances where the conventional wisdom is wrong (i.e. a common brass mat or leather case style was used many years before or after it was previously assumed). Those already familiar with early photography can skip the chapters on daguerreotypes, ambrotypes, and tintypes; these chapters provide an introduction for the novice.

Here is a dated image, only one of the 2,100 cased images studied during my research. Mr. William Park Codman was a New England folk portrait painter before the advent of photography. His daguerreotype is one I've owned for forty years. Mr. Codman may not be happy about his helping with my photographic research, as the invention of the daguerreotype put him out of business. But he appears to be a well-meaning and tolerant fellow.

DATING

There exist Facebook groups *My Daguerreotype Girlfriend* and *My Daguerreotype Boyfriend*. That's not the kind of dating I'm talking about.

There are several ways to identify when an early photograph was taken. Ideally, one should consider all evidence, from all methods. Evidence takes two forms: external and internal. This book focuses on external evidence, but I'll start with internal evidence – evidence found within the photographic image itself.

Internal evidence

Looking at a nineteenth century photograph gives several clues to its age. Knowledge of Victorian clothing styles is most helpful here, but painted backdrops or props may also provide useful clues to those in the know. Expert students of the daguerreotype will examine the camera angle, lighting, and even focusing quality of the daguerreotypist's lens.[1]

Victorian clothing styles are well documented and are a good way to start. Of course, not everyone wears the latest fashions, so clothing styles normally indicate only the earliest possible year. On the other hand, having one's photograph was an unusual and important enough event (at least early on) that a sitter is likely to be wearing their newest and grandest attire. Hairstyles changed at least as often as clothing styles, and it was cheaper to get an up-to-date hair style than it was to buy up-to-date clothes.

The bible for those interested in Victorian clothing is Joan Severa's *Dressed for the Photographer, Ordinary Americans and Fashion 1840-1900*, published 1995. This and other references, including several specializing in military uniforms, can be found in the bibliography. A useful start is this web page by Pauline Weston Thomas:

http://www.fashion-era.com/early_victorian_fashion.htm

If you know the sitter's identity, you may be lucky enough to find their birthday. Estimating the age of the sitter, in combination with their birthday, can give you the year of the photograph. The Church of Later Day Saints has this very helpful web site:

https://familysearch.org

External evidence

The physical photographic plate often provides clues. However, you must balance the value of this information against the danger of damage and potential loss of value which might occur by taking apart your image. In physics it is said that you can't examine a particle without changing it. The same rule applies to cased photographs, especially daguerreotypes. A daguerreotype is fragile and can be easily scratched, especially from the sharp edges of the brass mat that sits atop it. A fingerprint on the surface does irreparable damage. If not properly resealed, it will tarnish. If an image is taped to the glass with the original nineteenth century tape, breaking this tape lowers the market value, as many collectors prefer daguerreotypes that have the "original seals." Even if you are an experienced collector, and careful, you will sometimes screw up. I know that I have.

What do you gain from examining the plate? Usually not much. A minority of daguerreotype plates are stamped with a maker's mark, called a *hallmark*. Even if there is a hallmark, it will rarely give you a date better than the clothing will.

In short, unless you have archival training, don't take apart your images. It is rarely worth it. Daguerreotypes should not be opened without good reason, such as those on page 20. And please don't take them apart just to photograph for sale on eBay; experienced collectors will see your disassembled daguerreotype and assume that you are selling damaged goods.

There is external evidence available without the danger of damage. This is where this book comes in.

The brass mat, metal frame (called a *preserver*), and case all give clues to the age of the photograph. Mat and case styles changed as often as clothing and hairstyles did. In theory, you should be able to look up the dates for the mat, the dates for the preserver, and the dates for the case. Where all three dates overlap is your answer … NOT!

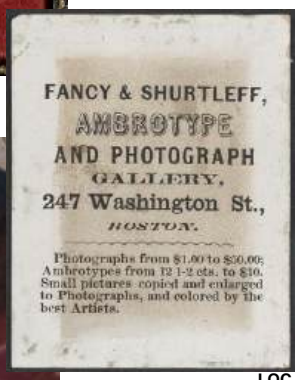
Your task (and mine) is made harder by the fact that it is common for an image to be found in a different case, preserver, or mat than was original. Photographs, especially early ones, were sometimes updated with new stylish mats or cases. I own an example of an early daguerreotype whose hallmark dates it to about 1843, the perfectly flat plate with unclipped corners reinforces that early date. Yet the preserver and mat are unmistakably from the 1860s. It was not uncommon for nineteenth century owners to update a picture of their loved one with a more modern and stylish case. Perhaps this happened here. Harvard

University owns such a documented example. Written on the inside of a daguerreotype case are the words: "May 24th 1858 / Mr & Mrs…Good / We changed your Picture Case / Done by S J / McClure & McClure…" Doubtless there are many undocumented examples of swapped cases ready to confound easy dating. Some collectors will swap cases as a way of improving their collection. I have also seen several examples of images sold on eBay in one case, and resold in a different case the following year.

The best you can do is check that the dates for the mat, case, and preserver are consistent. Since case-swappers are often ignorant of the finer chronology of mat and case styles, this will identify most swapped images. When the mat, preserver and case are from different periods, the odds are in your favor that the mat indicates the true date of the photograph, but this is only a probability.

Library of Congress (LOC)

Often the name and address of the photographer is known. In the early 1850s, many daguerreotypists ordered custom cases with their name stamped on the velvet pad.



LOC

Many small ambrotypes from the mid-late 1850s are backed with cards advertising the photographers' virtues, giving their name and address. Occasionally the name of the photographer will be stamped on the brass mat. This information can date your photograph.

Craig's Daguerreian Registry lists all American photographers from 1839 to 1860, including their address and the years they operated. John Craig compiled this – assisted by an army of volunteers – from period advertisements, trade journals, and city directories. The revised edition is out of print, but an older, free version is available online:

http://www.craigcamera.com/dag

A cautionary tale

Sometimes all the best clues lead you astray. Here is a daguerreotype, clearly from the early 1850s. The shape of the mat, the style of the brass preserver, the gilding pattern on the case, and the case design all indicate circa 1852. The case, preserver, and brass mat all match in period and go together. Written on the inside of this case, underneath the daguerreotype, are the date and the town where the picture was taken. On the pad is the name of the photographer, known to have operated only 24 miles from that town from 1852 to 1854.

Robert Reeves

Yet the date 1861 is clearly written inside the case. The young man is identified by name, and online research identifies his birth date of 1837. His age in the photograph is consistent with the picture being taken in 1861.

Perhaps the gentleman strolled into the local daguerreotype studio in 1861 carrying a ten-year old picture and case, and said "Save me a few bucks. Reuse this case please. Oh, and save me an additional fifteen cents by reusing this ten-year old daguerreotype mat too." An unlikely story, but what other explanation can you come up with?

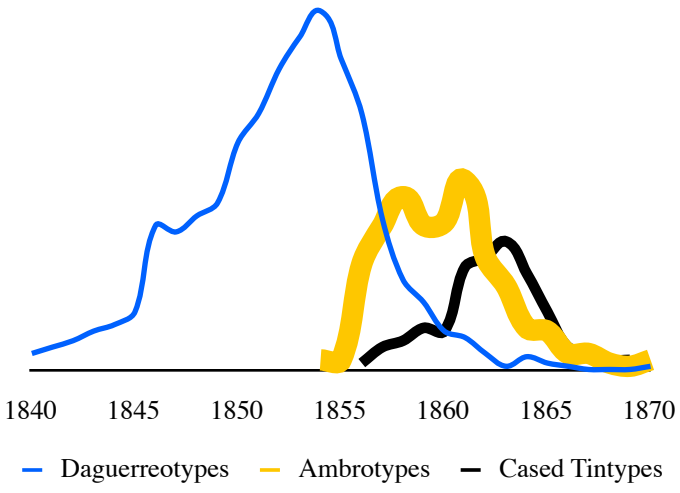
CASED IMAGES 1840–1870

It is hard to imagine today how special and treasured each individual photograph was in the 1840s. Today, as many photos are taken every 40 minutes as daguerreotypes were taken during their twenty-year reign.[2] Photographs were both rare and fragile. They were far from cheap at first, costing about $2.50 in 1845, the equivalent of $62 today.[3] For all these reasons, they were protected behind glass in expensive leather cases.

1840s Daguerreotype | 1850s Ambrotype | 1860s Tintype

Daguerreotypes, ambrotypes and tintypes are all different processes, were produced during different (overlapping) years, and are presented on different materials. They are respectively on silver, glass, and iron.

The first and most expensive process was the daguerreotype, introduced by Louis-Jacques-Mandé Daguerre in 1839. A scientific curiosity at first, they were mass marketed in the mid 1840s, for the first time allowing people of modest means to own their portrait. The daguerreotype declined in popularity with the introduction of the less expensive ambrotype in the early 1850s. The tintype in turn replaced the ambrotype during the Civil War.

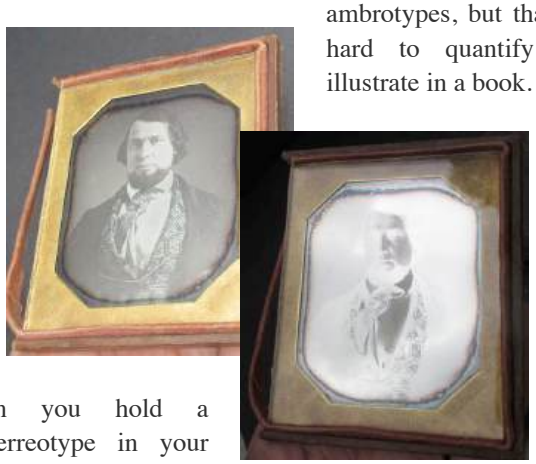


This chart is based on the sample of 2,100 dated cased images that I have located. Had all 100,000,000 cased photographs ever taken been plotted, the lines would most likely be smoother. Tintypes remained popular long after 1870, but most of them are uncased. If all tintypes were shown (not just cased ones) the black line would head for the stratosphere instead of dipping back down after 1863.

Daguerreotypes and ambrotypes were always protected in cases, usually of leather or in a thermoplastic *Union* case. Early tintypes were often similarly cased. In the early 1860s many tintypes began to be stored in inexpensive paper mounts. Around the same time, photographs on paper became common, notably the *Carte de Visite* or the slightly larger *Cabinet* photograph. After 1865, cased images became scarce, and disappeared entirely around 1870 with the extinction of the daguerreotype and the ambrotype.

Identifying daguerreotypes

The distinctive mirror-like surface of a daguerreotype makes one easy to identify, if you've seen one before. But if you have never seen a daguerreotype in the flesh, so to speak, it is easy to confuse the reflection off of the daguerreotype's silvered surface with the reflection of an ambrotype's glass. Daguerreotypes are *more* reflective than ambrotypes, but that is hard to quantify or illustrate in a book.



When you hold a daguerreotype in your hands and tilt it back and forth, you sometimes see a positive image, and sometimes a negative one. No ambrotype does that.

NEED ILLUSTRATION SHOWING POLISH LINES

Another distinctive aspect of daguerreotypes are the fine horizontal lines that are nearly always present. These are relics of the polishing process. The polish lines are left and right, never up and down, so that they are less visible under normal viewing conditions.

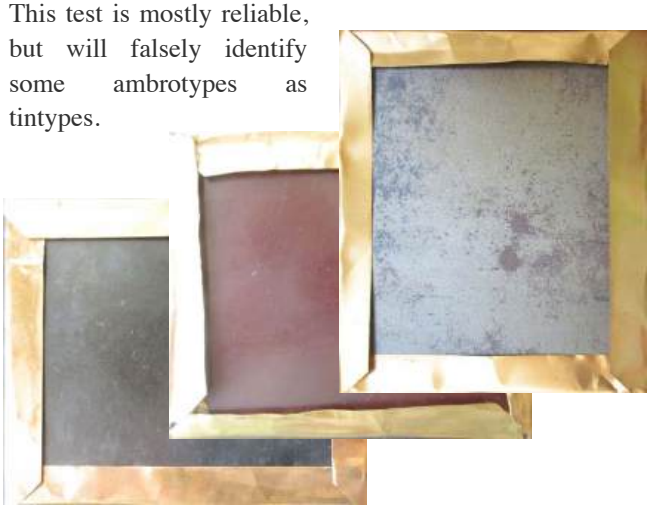
Looking at the back of the plate is another way to identify a daguerreotype. While some daguerreotype plates are electroplated front and back with silver, the majority show bare copper on the back. The gummed paper around the edge is, in this case, an *original seal*, valued by collectors. Few ambrotypes or tintypes are sealed.

Identifying tintypes

Tintypes, like daguerreotypes, are photographs on metal. There the similarity ends. Daguerreotypes are mirror-like; tintypes are flat by comparison. Daguerreotypes are delicate and must be cased; tintypes are tough enough to be naked to the elements. Daguerreotypes are magical; tintypes are prosaic.

The back of a tintype may be black, dark red, or steel gray, but never copper.

Since tintypes are on iron (not tin!), the easiest way to test for a tintype is to see if a magnet is attracted to it. This can be done through the cover glass even with a weak magnet. This test is mostly reliable, but will falsely identify some ambrotypes as tintypes.



Identifying ambrotypes

Ambrotypes are photographs on glass; these come in several types, each of which look slightly different from the front. Their backs present even more variety; they may be backed with black paint, varnish, cloth or paper, or with blackened iron or tin plates. For these reasons, ambrotypes are the hardest to identify.

Fortunately, process of elimination will usually identify an ambrotype. Does it have a silver mirrored surface like a daguerreotype? If not, it is probably a tintype or an ambrotype.

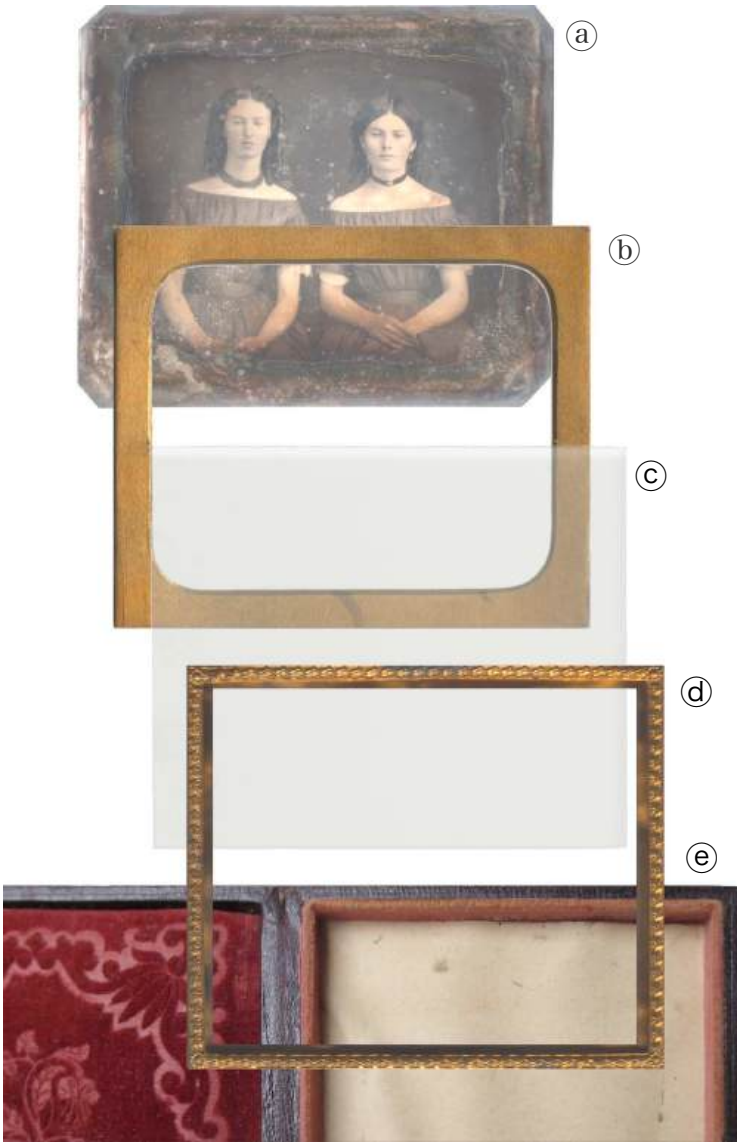
Ambrotypes and tintypes share the same chemistry; thus a tintype under glass looks just like an ambrotype. To tell them apart, use a magnet. If the magnet is *not* attracted to it, you've got an ambrotype. If the magnet is attracted to it, it is probably a tintype, but there is a small possibility that it's an ambrotype backed with a blackened iron plate.

Another way to identify an ambrotype is to look for telltale signs that the black backing is not part of, but behind the image. If the ambrotype glass plate is thick you may be able to see the ambrotype image floating above the background. If the black background is cracked or flaking, you might see through the glass to the back of the case, as illustrated below.

If you are still not sure, ask yourself how important it is to know. Knowing whether it is an ambrotype or tintype won't help much in dating your photograph, since they overlapped in time. Ambrotypes are fragile, so you must always weigh the risk of damage against what knowledge you would gain from taking your photograph apart.

Protecting the image

American and British daguerreotypes, ambrotypes, and early tintypes are usually stored in cases. The pieces, from inside to out, are:



(a) *Plate*. The photographic plate may be silver/copper (daguerreotype), glass (ambrotype), or iron (tintype).

(b) M*at*. Usually brass, these hide the unfinished edges of the photograph and keep the plate from rubbing against the cover glass.

(c) C*over glass*. This protects the plate from fingerprints, scratches, and (for daguerreotypes), tarnishing. All daguerreotypes, most ambrotypes, and some tintypes have a cover glass.

(d) *Preserver*. This narrow metal frame wraps around the plate, the mat, and the cover glass, fastening them into one self-contained sandwich. Preservers were introduced around 1847, so an early daguerreotype will lack one.

(e) *Case*. This may be leather, paper mache, or a thermoplastic *Union* case.

In continental Europe, different packaging was used. Most French and northern European daguerreotypes are framed rather than cased. These are beyond the scope of this book.

Nordic Museum

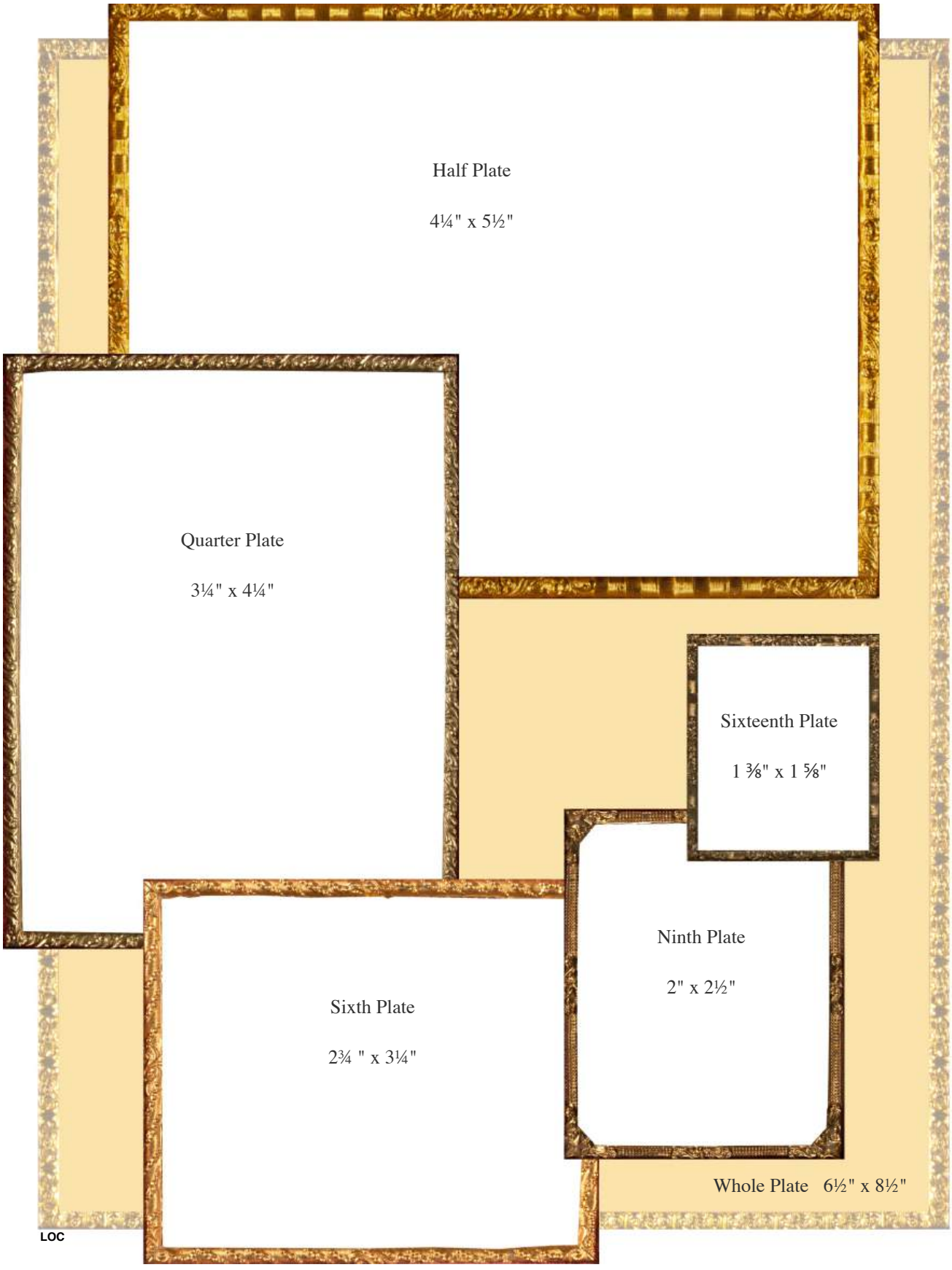
Nordic Museum

Standard sizes

Cased photographs come in standard sizes; the names of which, *half plate*, *quarter plate*, *sixth plate* and so on, refer to the maximum number of images you can get from cutting up a standard 6½ by 8½ inch *whole plate*.

Knowing the size of your plate is important in order to use the tables near the end of this book. These tables catalog the mats, preservers and cases by size and assign designs to specific years. The sizes are:

Whole plate	6½" x 8½"	165 mm x 216 mm
Half plate	4¼" x 5½"	108 mm x 140 mm
Quarter plate	3¼" x 4¼"	83 mm x 108 mm
Sixth plate	2¾ " x 3¼"	70 mm x 83 mm
Ninth plate	2" x 2½"	51 mm x 64 mm
Sixteenth plate	1 ⅜" x 1 ⅝"	35 mm x 41 mm


Half Plate
4¼" x 5½"
Quarter Plate
3¼" x 4¼"
Sixteenth Plate
1 ⅜" x 1 ⅝"
Ninth Plate
2" x 2½"
Sixth Plate
2¾ " x 3¼"
Whole Plate 6½" x 8½"
LOC

actual size

You may ask, “Why are plate sizes based on such an oddball, arbitrary whole plate size?” The daguerreotype was invented in France, and Daguerre chose 6 by 8 Parisian inches as his standard. In the days before international standardization, a Parisian inch was larger than an English inch, so his 6" by 8" is our 6½" by 8½".

Plates, cases, mats and preservers are all made to these sizes. Typically, the size of the plate matches the size of the mat, which matches the size of the case.

Mathematically inclined readers may notice that two sizes are inaccurately named. A half plate mathematically should be 4¼" by 6½", and sometimes they are. But more commonly they are trimmed down to 4¼" x 5½". European images are often slightly larger: 4¾" x 6¼" or 4¾" x 6½"; these are sometimes called *oversize half plates*.

Sixteenth plate is a misnomer. A sixteenth plate is exactly one quarter the size of a sixth plate; hence it really should be called a “twenty-fourth plate.” But it ain’t; go figure. Sixteenth plates date from 1854 or later.

Other sizes

The above mentioned plate sizes account for 99% of all cased images.[4] A few oddball sizes will occasionally be found:

Three-quarter plate	~ 5¼" x 6½"
Third plate	4" x 5"
Uncased stereo pair	~3" x 6"
Eighth plate	2 ⅛" x 3¼"
Oreo	1 ⅜" circular
Carte de Visite (CDV)	2 ⅛" x 3½"

Three-quarter plate and *Third plate* are often used to describe any intermediate sizes; the *three-quarter* is smaller than a whole plate and the *third plate* is smaller than a half plate.

Stereo photographs contain two nearly identical images, which, when viewed in a stereoscope viewer, result in a lifelike 3-D image. Since we have two eyes, our brain gets two slightly different views, seen from about 2½ inches apart. Our brain merges these into a single 3-D view. Most 3-D photographs work the same way: two images are taken with a double camera with lenses 2½ inches apart. When the resulting double photograph is placed in a stereoscope (a device which lets the left eye see only the left image, and the right eye see only the right image) the 3-D illusion is complete. Some stereo daguerreotypes are found in quarter plate cases. Others are uncased.

The British occasionally used an *eighth plate* for daguerreotypes. The only two dated examples I have found are both from 1847. This may or may not be a coincidence. An eight plate is close enough in size to a CDV (see below) that the terms are sometimes interchanged.

The smallest standard size is the *oreo*, so called because the circular union cases for these tiny round images are about the size and color of an Oreo cookie. The photograph is a taken on a sixteenth plate and then is cut down to a circle. Oreos presumably date no earlier than 1862, when J. Lewis Baldwin patented the hinge for this case.[5]

Klein archives

Carte de Visite

A new size, not based on the subdivision of the daguerreotype whole plate, was introduced in the 1850s for paper photographs and was occasionally used for cased photographs in the 1860s. The *Carte-de-Visite*, often abbreviated *CDV*, was known in its day as the “card photograph.” It was the habit at the time of leaving calling cards when visiting friends. The Frenchman André Adolphe Eugène Disdéri hit upon the idea of making inexpensive photographs on paper to use in their stead. He patented it in 1854, but they didn’t really catch on until 1859. That year CDVs became the rage in New York, and their popularity soon spread across America. These paper photographs are 2 ⅛" x 3½", mounted on a 2½" x 4" card. Since they were made from a negative, multiple copies were inexpensive. CDVs of celebrities sold by the thousands. The first photograph albums, with slots for CDVs, were introduced in 1860.

CDV cases are not common; they usually hold tintypes. Peter Neff, the premier tintype plate manufacturer, began selling CDV tintype plates in December 1862; other manufacturers followed suit the following year. Very rarely, a CDV-sized ambrotype will be found in a case.

Need illustration of uncased CDV tintype behind wrap-around mat

CDV-sized tintypes are often uncased; the mat is wrapped around the four corners of the plate to hold it in place. This is not to be confused with a small tintype mounted on a CDV sized card. Both were intended for albums, not cases. These generally date from 1864 or later.

Over-matted daguerreotypes

LOC

Usually the plate size of the image is the same as that of the brass protecting mat, cover glass, and case. But between 1847 and 1855 images were often *over-matted*, to give a small image a grander setting. This was usually done by placing a ninth plate image in a sixth plate case, and using a mat with a small opening. Another situation where the plate size does not match the mat size is with European images. Many of these are matted extremely close to the edge of the plate, sometimes with the plate edge or daguerreotype hallmark visible. To determine the size of a plate framed this way, measure the visible portion of the image and find the smallest standard daguerreotype size that will fill that mat opening. In this example, the quarter plate mat with a 2" by 2¾" opening probably covers a sixth plate daguerreotype plate.

LOC

DAGUERREOTYPES

Hoaxes and illusionists

"In this unusual addition to our Journal, we have the happiness of making known to the…whole civilized world, recent discoveries…which will build an imperishable monument to the age in which we live, and confer upon the present generation of the human race a proud distinction through all future time."

- New York Sun, 25 August 1835

In August 1835 readers of the *New York Sun* were greeted with news of a remarkable new optical invention – the hydro-oxygen telescope.[6] Subsequent issues detailed the astonishing discoveries made when this device was pointed at the moon: lunar forests, lakes and animals. Most astonishing were the intelligent flying creatures, "man-bats," as the purported discover, the astronomer Sir John Herschel, reported.[7] This "moon-hoax" was believed by many, but in this age before the telegraph there was no way to contact Sir John (a real person) in South Africa to verify the story.

LOC

At the same time in Paris, Louis-Jacques-Mandé Daguerre was working on an optical invention of equal improbability. Daguerre was a painter who specialized in optical tricks, such as diorama paintings that changed as the light behind them was adjusted. His paintings were, in effect, short movies. To perfect the perspective, Daguerre was adept at using a device called the *Camera Obscura,* which cast an image upon tracing paper. In 1835, Daguerre was working on a dream that had eluded scientists and artists for fifty years – making the image on the tracing paper draw itself.

Daguerre

Joseph Nicéphore Niépce had accomplished this around 1825, but his process was experimental, unannounced, and required eight hours exposure. When Daguerre's improvement on Niépce's work was made public in 1839, some thought that this was another fraud similar to the moon hoax.[8] The concept of drawings made without the human hand was too fantastic to believe; Daguerre's previous success as an illusionist added to doubt of his invention. In Germany, the *Leipzig Stadtanzeiger* denounced the announcement as an "infamous lie" because:

- The wish to freeze the image in a mirror is blasphemy
- Man's features can only be reproduced by a person, never by a machine
- It is impossible, as shown by basic German research
- If it were possible, Archimedes or Moses would have invented it
- The mirror, tool of woman's vanity, is itself an invention of the Devil
- If true, there would be an epidemic of vanity as hellish mankind had their own mirror-portraits made for filthy money.[9]

The last prediction became true, as Charles Baudelaire recalled in 1859: "our squalid society rushed, Narcissus to a man, to gaze at its trivial image on a scrap of metal."[10]

Our curmudgeonly writer from Leipzig had one thing right: the world was going crazy. Previous generations could assume that their lives would resemble their grandparents' lives. The appearance of steamboats and factory-produced goods were the first signs that the future might look different. The daguerreotype was only one of the high-tech wonders of its day. By 1840, the two largest American cities, New York and Baltimore, were connected by railroads. By the end of the daguerreotype era any northern city of significant size was part of the railway network.[11] The telegraph, introduced within a few years of the daguerreotype made communication instantaneous. Today we are used to technological change; back then the change itself was novel.

LOC

Invention

Daguerre made the technical details of his process public on 19 August 1839, and soon followed this up with public demonstrations and a daguerreotype manual. By this time the French government had purchased the process and made it free to the world (except in England, where Daguerre's agents had already applied for a patent).

The daguerreotype process is neither easy nor healthy. A copper plate is clad with pure silver, then polished to a mirror-like sheen. This is laborious; just the polishing takes more than sixteen steps. This plate is exposed to toxic iodine fumes to make it light sensitive before being placed in a camera. Here the lens imparts the image onto the plate for ten minutes or more. When the plate is removed from the camera it bears no visible image; the *latent image* is only made visible by developing the plate over heated mercury. This crucial step was a chance discovery by Daguerre, who had spilled some mercury in a cabinet holding early experimental plates. Were it not for this accident, the invention of photography might be credited to any of several other men who were at that very moment attempting to "fix" (make permanent) camera obscura images, including Hippolyte Bayard or Sir John Herschel, the supposed discover of man-bats on the moon. Lastly, the plate is *fixed*, or made light-insensitive, by washing it in sodium thiosulphate (familiar to darkroom enthusiasts as *Hypo*), before being sealed behind glass.

Samuel B. Morse, onetime painter and future daguerreotypist, was already famous for his electric telegraph when he met Daguerre in early 1839. In one of the first reports of the daguerreotype to reach America, Morse describes both the unexpected clarity and detail of Daguerre's plates, as well as the limitations imposed by lengthy time exposures: the inability to record people or any moving animal or object. Here Morse describes Daguerre's 1838 image, shown on the previous page:

New-York Observer, 20 April 1839

The following is an extract from a private letter of Professor S. F. B. Morse to the editor of the Observer, dated, Paris, March 9th.

You have perhaps heard of the Daguerrotipe [sic]*, so called from the discoverer, M. Daguerre. It is one of the most beautiful discoveries of the age… They are produced on a metallic surface, the principal pieces about 7 inches by 5, and they resemble aquatint engravings, for they are in simple chiaro oscuro, and not in colors. But the exquisite minuteness of the delineation cannot be conceived. No painting or engraving ever approached it. For example: In a view up the street, a distant sign would be perceived, and the eye could just discern that there were lines of letters upon it, but so minute as not to be read with the naked eye. By the assistance of a powerful lens, which magnified 50 times, applied to the delineation, every letter was clearly and distinctly legible, and also were the minutest breaks and lines in the walls of the buildings, and the pavements of the street. The effect of the lens upon the picture was in a great degree like that of the telescope in nature…*

Objects moving are not impressed. The Boulevard, so constantly filled with a moving throng of pedestrians and carriages, was perfectly solitary, except an individual who was having his boots brushed. His feet were compelled, of course, to be stationary for some time, one being on the box of the boot-black, and the other on the ground. Consequently, his boots and legs are well defined, but he is without body or head because these were in motion…

Faster, faster!

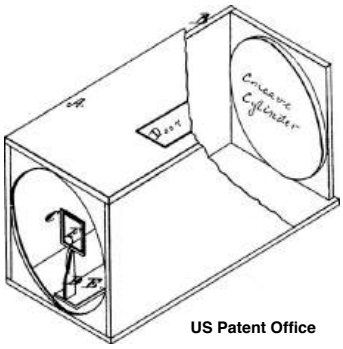
The first daguerreotypes were still lifes, landscapes and cityscapes. Exposure times ranged from 5 to 70 minutes,[12] making portraits practically impossible, although one enterprising American, Henry Fitz Jr, managed to take the first "selfie" by painting his face white, closing his eyes, and resting in the bright light for perhaps half an hour.

Smithsonian Institution

Two improvements helped reduce exposure times to allow portraits. The first was an improved lens. Daguerre's camera used a lens manufactured by Charles Chevalier, with an effective speed of f/15. What was needed was a lens with a larger aperture (i.e. lower F stop) to let in more light. In 1840, the Viennese optical company of Voigtländer and Sons enlisted mathematics professor Joseph Petzval to design a sharper, faster lens. Petzval's lens was f/3.6, twenty times faster than Chavalier's. This brought daguerreotype exposure times down to less than a minute.[13]

Ray Morgenweck

It was several years before the Petzval lens became standard in America. Until then, many pioneering daguerreotypists used a lensless camera patented by Alexander Wolcott on 8 May 1840.[14] Wolcott's camera used a concave mirror to focus the image instead of a lens, the same principle currently used in radio telescopes and satellite TV dishes.



US Patent Office

The other improvement was a "faster" (i.e. more light-sensitive) daguerreotype plate. Several men independently discovered the technique of using either chlorine or bromine along with iodine fumes for sensitizing the plate. The first appears to be Dr. Paul Beck Goddard of Philadelphia, working with daguerreotypist Robert Cornelius in December 1840. They kept their improvement secret to monopolize the daguerreotype portrait market.[15] But on 12 December 1840 John Frederick Goddard (no relation) of London, publicly announced his method of making faster plates in the *Literary Gazette*.[16] His use of bromine along with iodine reduced exposure times from ten minutes (presumably he was not yet using Petzval's lens) to one minute.[17] The proportion of iodine, bromine, and chlorine (and possibly other secret ingredients), as well as the method of using them would become trade secrets to each daguerreotypist, who had their own secret *quickstuff*.

A third technical change did not shorten exposure times, but improved the appearance of the image. Daguerreotypes made before 1842 are low in contrast and cold in tone. In 1840 the magnificently named Armand Hippolyte Louis Fizeau discovered that treating the finished plate with gold chloride deepened the shadows, made the highlights brighter, gave a pleasant warm tone to the image, and made the surface less fragile.[18] Gold toning became standard practice by 1843; almost all daguerreotypes are gold toned. Despite the name, gold-toned daguerreotypes are silver in color, not gold.

Color

When the daguerreotype was announced in 1839, readers were told "they are not paintings, they are drawings" because they resembled charcoal or pencil drawings in shades of grey.[19] It was widely assumed that this drawback was only temporary, just as the inability to take portraits from life was temporary until the invention of quickstuff and faster lenses. The problem of color, however, remained intractable, and full color photography would need to wait until the next century.[20]

In the meantime, daguerreotypists resorted to hand-coloring their black and white images. This was easier said than done. In 1843, Benjamin R. Stevens & Lemuel Morse received the first American patent for coloring daguerreotypes. Their simple solution was to varnish the finished plate and paint over it. This was not an ideal solution, as the varnish reduced the clarity of the image, and the paint brush-strokes are often obvious, as can be seen in this daguerreotype of a Freemason.

The commonest, albeit most time consuming, coloring method had been invented by the Swiss painter and daguerreotypist Johann Baptist Isenring in 1841.[21] He traced the daguerreotype onto glass, then made a paper stencil for each color he wished to apply. Powdered pigment mixed with gum arabic was sprinkled over the unmasked portion of the plate, which was fixed in place by breathing on it to dissolve the gum arabic. This process was slightly improved in a patent issued to Frederick Langenheim, Philadelphia daguerreotypist, in 1846.[22]

In 1842, Daniel Davis of Boston patented a method to add a uniform hue to the entire daguerreotype plate by immersing it in a chemical solution and then running a current through it. In theory, color could be added more strongly to one portion of the image by judicious location of the negative wire on the back of the plate.[23] Davis assigned the patent to John Plumbe, operator of a chain of daguerreotype studios, who, in 1843, advertised the Plumbe *National Daguerreian Gallery of Patent Colored Photographs*.[24] The words "Plumbe's Patent Oct 22 1842" graces the mats of many Plumbe daguerreotypes from the early-mid 1840s. In 1843, Warren Thompson improved Davis' method by masking portions of the plate with grease. After electro-coloring to add color, the grease was removed by washing the plate in lye.[25] But the hype was better than the reality; results were blotchy as can be seen in this daguerreotype, described by its owner as "subjected to" Davis' Electrolysis Coloring Process.

Jason Wright

In 1851, daguerreotypist Levi L. Hill announced that he had made all these methods irrelevant with his process for taking daguerreotypes in full natural color. At the time most believed that Hill's claim was fraudulent; that these were nothing but hand-colored daguerreotypes. Some surviving *Hillotypes*, as they are now called, have been analyzed by the Smithsonian Institution to reveal that both Hill's claim and the charges of fraud were half right: Hill's plates do exhibit natural reds and blues,[26] but have been "improved" by hand-painting to provide the missing colors.[27]

Smithsonian Institution

There is now no doubt that color photography indeed predated Kodachrome by 85 years: In the 1980s Joseph Boudreau proved Hill's claims were authentic by creating new Hillotypes.[28] Unfortunately, Hill's process is not practical. The surviving Hillotypes are all (excepting one self portrait) landscape views or copies of prints, implying that long exposure times were required. Most unfortunately, the plates could not be fixed and thus made light-resistant; therefore they can only viewed briefly under dim light.

Zenith

"It is well known to many of our readers that this [daguerreian] art has been elevated to a higher point in this country than in the land of its discovery… Our artists who have visited Europe, carrying with them their own apparatus, made on this side of the Atlantic, have surpassed in their pictures the productions of any foreign artists." So claims the *New York Illustrated News* on 1 June 1853. This was not an idle boast. Two years earlier, Americans had won three of the five photography medals awarded at the Great Exhibition in London's Crystal Palace.[29]

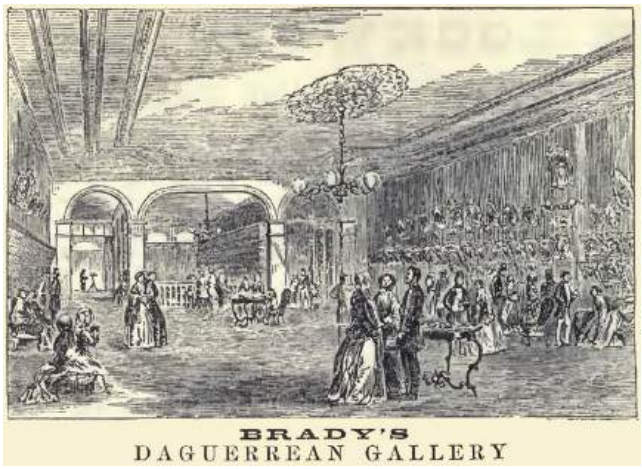
The Great Crystal Palace Exhibition marks the apogee of the daguerreotype. The relatively high cost of having one's picture taken had one positive effect: there would be few sloppy, shoddy daguerreotypes; when one daguerreotype costs $2.00 ($50 today), one is careful about each. This

golden age would not last. By 1854, some daguerreotype studios would offer ninth plate daguerreotypes for 25¢ to compete with the ambrotype, but it was a losing battle. One Crystal Palace visitor recalls the decline that followed:

"The newly born collodion process very soon annihilated the Daguerreotype, although the latter process had just reached the zenith of its beauty…[the publishing of] Archer's collodion process…was like the announcement of the birth of the infant Hercules, that was destined to slay a beautiful youth whose charms had only arrived at maturity. But there was really a singular and melancholy coincidence…for Daguerre himself died on July 10th 1851, so that both Daguerre and his process appeared to receive their death blows in the same year."[30]

This may have been true in England, where Beard's patent laid a heavy financial burden on daguerreotypists and had long inhibited its widespread use. Archer's collodion process, which made ambrotypes and high quality paper photographs possible, was free and therefore was quickly adapted in England. In the United States the transition was slower; ambrotypes would not outnumber daguerreotypes until 1857.

One of the Crystal Palace exhibition medal winners was Mathew Brady, former case maker and future Civil War photographer, who operated a chain of daguerreotype studios. No, the word "studio" is insufficient. Brady's establishments were more than just daguerreotype studios; they were daguerreotype factories; they were daguerreotype museums; they were daguerreotype palaces, as described in 1853:



Norton's Literary Gazette, 1854

"This room is about twenty-six by forty feet and is the largest reception room in the city. The floors are carpeted with superior velvet tapestry…the walls are covered with satin and gold paper. The ceiling frescoed, and in the center is suspended a six-light gilt and enameled chandelier… The light through the windows is softened by passing the meshes of the most costly needle worked lace curtains… The harmony is not in the least disturbed by the superb rosewood furniture – tetes-a-tetes, reception and easy chairs, and marble-top tables, all of which are multiplied by mirrors from ceiling to floor. Suspended on the walls, we find the daguerreotypes of Presidents, Generals, Kings, Queens, Noblemen…men and women of all nations and professions."[31]

Brady, with failing eyesight, no longer operated the camera. An establishment like his was big business, run like a factory but as welcoming and comfortable as a spa. Besides the "operating room" where the photograph was taken, there were comfortable reception rooms and galleries. This was a place where the elite could wait in comfort for the hour it took for their daguerreotype to be finished and cased. Brady was at the high end of his profession, in the most fashionable portion of America's largest city.

At the other end of the profession were itinerant photographers who made the circuit of small towns, staying in one place only as long as there were customers. Those of modest means might set up their temporary studio in their host's living room. Those who could travel with their studio in a wagon would be guaranteed the convenience of their own darkroom and a (small) studio room, with windows, skylights, and diffusing screens to provide appropriate light. Before electricity, control of natural light was essential.

Illustration needed of traveling daguerreotype studio. Until then:

http://www.esauboeck.com/images/1.10_bakerbatchelderA68.94.8300.jpg

Oakland Museum of California

Thirty million daguerreotypes were taken in America.[32] With a population of 23 million in 1850, that works out to about one daguerreotype for every American who would live, die, or be born during the daguerreian era. Not everyone could afford a daguerreotype, and not everyone wanted one, so perhaps the average sitter sat for two daguerreotypes in their lifetime. For many sitters it would be their only daguerreotype, perhaps their only photograph of any kind.

Sometimes a person's only photograph was taken after death. There are daguerreotypes of men lying in coffins, of grieving women holding their dead infants, and of children posed as if they were merely sleeping. Probably no pictures

Getty Museum

had been taken of them during their lifetime; this was the only way their loved ones could hold their image in memory.

The mirror of truth

In 1839, before the phrase "the camera never lies" had been coined, the first daguerreotypes astonished with their detail. Detail in paintings had always been selective – a painter might focus one's attention to a part of the painting through fine detail and highlights, while leaving other portions of the canvas only roughly rendered. The daguerreotype was not selective: every brick and dewdrop is "drawn" in obsessive and disturbing detail. I suspect that some contemporaries reacted to seeing their first daguerreotype in the same way that I react to seeing most electron-microscope photographs: with "the willies." The strangeness of the first daguerreotypes was enhanced by the complete absence of people in Daguerre's views of Paris – no one stood still long enough to become visible.

The daguerreotype was initially seen as a scientific tool, an objective and always truthful recorder of architecture and science. Objective truth was less useful when it came to portraiture:

"The most terrible enemy which the Daguerreotype has to combat is, without contradiction, human vanity. When a portrait is painted, the flattering hand of the artist knows how to soften the irregular features of the face, to make graceful a stiff pose, and to give an effect of grace and dignity to the whole. Therein lies the talent of the portrait painter; one expects a likeness, but above all one wants to look beautiful – two demands which are often incompatible." [33]

In Europe, the (painted) portrait was a measure of one's social standing: a demonstration of, or aspiration to being a member of the aristocracy. And the portrait always flattered the sitter. The too-truthful daguerreotype was not an ideal substitute.

In America, things were different. Here, everyone was theoretically equal, as long as you were (in order of importance) white, male, and owned land. Even in the colonial period painters such as John Singleton Copley celebrated this equality with plain, truthful

National Gallery of Art

portraits of the middle class. Copley's portrait of Eleazer Tyng (shown cropped) is the natural precursor to this anonymous daguerreotype. Perhaps this is why the daguerreotype, although invented in France, became most popular in America. It fell on ideologically compatible soil.

Care and feeding

The surface of a daguerreotype is delicate and easily damaged; the oils from a fingerprint, or a scratch from the brass mat will permanently damage your image. Unless you are trained at the task, and have practiced first on worthless images, I urge you to leave your daguerreotypes as they are. There are two exceptions:

- Unsealed daguerreotypes should be sealed so that they do not tarnish.
- If condensation appears on the inside of the glass, the glass should be replaced. Until then, store daguerreotypes with "weeping glass" upside down. The condensation contains sodium silicate, a strong alkaline that will damage the plate.[34]

Instructions for doing so can be found at

http://vieilalbum.com/Tech01US.htm

AMBROTYPES

"It is a somewhat singular fact, that whilst the [Ambrotype] positive collodion process is regarded as the simplest and most easily managed of all photographic processes, there are found amongst exhibited collodion positives a greater number of thoroughly bad pictures productions at once a disgrace to photography and a burlesque upon art…"[35]

- G. Wharton Simpson, 1860

Ambrotypes, photographs on glass, were around for only a decade. The ambrotype largely replaced the daguerreotype in the late 1850s, and was in turn replaced by the less fragile tintype by the mid 1860s. *Ambrotype* is a word coined, and initially used, only in, America. In Britain they were originally called *Collodion positives on glass*, *Daguerreotypes on glass*, or *Archerotypes*, after their British inventor. On the continent one might be called either *daguerreotype sans miroitage* (daguerreotype without reflection), *Verreotype* (after the French word for glass), or *Amphitype*. Today collectors worldwide use *Ambrotype*.

James Anson Cutting and famed Philadelphia daguerreotypist Marcus Root coined the term *Ambrotype* in 1854, from the Greek word for imperishable.[36] As we shall see, they are anything but.

The ambrotype is the unappreciated middle child of nineteenth century photography. It lacks the scientific precision and luminous silver glow of the daguerreotype. It also lacks the comic and casual air often found in end-of-the-century seaside and carnival tintypes. Collectors focus on daguerreotypes, or maybe tintypes; but few collect just ambrotypes. Back in their day, they similarly lacked respect. Ambrotypes were less expensive than daguerreotypes, and that inevitably led to daguerreotypists sniffling that the new process pandered to those who cared only about price, and quality be damned. While a daguerreotype was an expensive proposition, you could walk into an ambrotype "mill" and have your picture taken for 25¢. While Mr. Simpson, quoted above, was undoubtably correct that there are many low quality ambrotypes entirely without art or artifice, the lower prices allowed almost anyone to be have their portrait taken, rich or poor.

The really inexpensive ambrotypes were small, 2 x 2½ inch ninth plates, taken in vast numbers, and often low quality. Yet the low price of these pictures did not prevent some photographers from reaching higher. In the anonymous portrait of two sisters the photographer has ingeniously created a classic pyramidal composition by incorporating a newel post finial and hat along with the two heads.

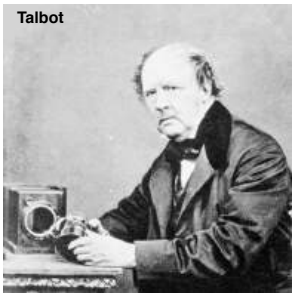
Customers favored ambrotypes because they were more affordable and easier to view. They were favored by photographers because they were easier and quicker to make, and much healthier for the photographer. Introduced in 1854, ambrotypes outnumbered daguerreotypes by 1857 and almost entirely replaced them by 1861.

Ambrotypes are negatives. Take a slightly underexposed glass negative, bleach it with mercuric bichloride or nitric acid it so that the opaque (normally black) portions of the negative are white; then put it in front of a black backing so that the transparent portions of the plate appear dark. Voila! Dark appears light and light appears dark. The ambrotype negative is now a positive. Making a print from this negative is unnecessary. Because of this, each ambrotype is unique, like a daguerreotype or a Polaroid picture.

Ambrotypes whose back-painting is disintegrating can be identified at a glance. In spite of their appearance, most ambrotypes showing this kind of damage are not lost causes. Usually the photographic image on the plate is undamaged; what appear to be swatches of missing image are instead only missing portions of the black paint on the back of the glass. The damage can be made nearly invisible by inserting a sheet of jet-black acid-free paper or black acrylic velvet behind the glass.

Invention

The ambrotype shares the same basic chemistry used in black-and-white photography until the advent of digital photography. Englishman William Henry Fox Talbot invented this positive-negative process in the 1830s, and rushed to make his process public when he heard of Daguerre's invention. Talbot used waxed paper for the negative, and made prints onto plain paper. The contrast and detail were poor, so his *Calotypes* never became popular. Only in the 1850s, with the invention of the glass *wet plate*, could Talbot's positive-negative process challenge the daguerreotype. To make a wet plate, bromide, iodide, or chloride and nitrocellulose are dissolved in ether and alcohol. This mixture, *collodion*, is poured over a pane of glass, sensitized in a silver nitrate bath, and then exposed and developed while still wet. Since collodion dries in ten minutes, the photographer had to work near his darkroom, or bring a darkroom with him. The resulting high-quality glass negative could be used to print multiple paper copies at leisure.



Gustave Le Gray invented the collodion wet plate, but Frederick Scott Archer is credited with perfecting it. Archer announced his process in the March 1851 issue of *The Chemist*.[37] Archer did not patent his process and only a few "collodion positives on glass" (we would now call them ambrotypes), were made before 1854. Talbot's claim that his Calotype patent included all positive-negative photographs prevented the wet plate from becoming widely used. That all changed in 1854, when Talbot sued Archer's collaborator Martin Laroche for making wet plates without paying Talbot the £300 annual Calotype license. Talbot lost the case; suddenly the wet plate process was, as we would now say, "in the public domain."

In America, the ambrotype left the public domain just as it entered it in Britain.

To all whom it may concern:
Be it known that I, JAMES A. CUTTING, of the city of Boston, county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Positive Photographic Pictures on Glass; and I do hereby declare the following to be an exact description thereof.

Cutting did not invent the ambrotype, but he claimed to improve it with three patents in 1854, two of which were controversial.

In patent 11266, Cutting was granted rights to "the employment of bromide of potassium in combination with collodion."[38] This outraged photographers, who considered the use of bromine salts to be common practice. Potassium bromide had been used in making Calotypes before the wet plate was invented. Bromine had been used as an *accelerant* in daguerreotypes since 1840; indeed it was one of the three early improvements to the daguerreotype that allowed short exposure times and thus made portrait photography practical.

Finally, in patent 11267, Cutting describes how the ambrotype can be "hermetically sealed and rendered entirely permanent" by covering the image side of the plate with a second pane of glass, secured with balsam of fir, a clear cement.[39] Many Ambrotypes made this way were subsequently packaged behind a mat proudly stamped "Cutting's Patent July 4 & 11, 1854."

Like all great inventions, the ambrotype was soon followed by … litigation. His patents were challenged by photographers who said that Cutting merely claimed ownership of techniques that were already common practice. Cutting returned the favor by suing those who would not pay his hefty license fee, including future Civil War photographer Mathew Brady. He even changed his middle name from Anson to Ambrose as a way of strengthening his claims.[40]

Cutting claimed "the term Ambrotype was originated as a trade mark to designate our patent picture [with two panes of glass cemented together]" and that "any application of this term to pictures on single glass plates is therefore an infringement of our rights…."[41] In spite of his protestations, collectors today use the term *ambrotype* to refer all collodion positives on glass, whether they contain one or two panes of glass, cemented or not.

Yet even as Cutting tried to enforce his patent, other photographers made both single and double pane ambrotypes, either eschewing his patented improvements or patently ignoring them. Photographers who licensed Cutting's patent warned the public on what we would now call Ambrotype-knockoffs: "The public are cautioned against buying pictures made in this city, supposing them to be Ambrotypes. None of the pictures are genuine unless stamped [Cutting's] 'Patent'. It is a heavy fine to sell one without stamping it."[42]

Cutting

Ballou's Dollar Monthly Magazine, 1862

Cutting's aggressiveness in protecting his rights cost him in the end. In 1856 the tintype process was announced. Less fragile, less costly, and perhaps most importantly, less litigatious, the tintype would soon eclipse the ambrotype.

A confusing terminology

There are about as many ways to make an ambrotype as there are ways to make a sandwich. An ambrotype may contain a cover glass, a brass mat, and perhaps spacers in addition to with the ambrotype plate. Pieces can be assembled in almost any order, although some of them, like a sandwich with the meat on the outside, don't make much sense.

Traditionally the terms *single-glass ambrotype* and *double-glass ambrotype* are used to describe three [!] different ambrotype sandwiches. The terms are also confusing, as one of the *single-glass ambrotype* varieties contains two separate pieces of glass. Phillipe Maurice argues that these terms are inconsistent and should not be used, but does not propose any concise alternative.[43]

I propose the following terminology:

- *Cutting's style ambrotype* – two cemented panes
- *Ventral ambrotype* – collodion face up with cover glass
- *Dorsal ambrotype* – single-glass collodion on the back

The *Cutting's style ambrotype* corresponds to a grilled cheese sandwich, with the image "imperishably" preserved (so he claimed) between two panes of cemented glass. They were predominant in the early years, from 1854 through 1857. In spite of Cutting's claim that the cement made his photographs imperishable, you will sometimes find that the cement has separated, leaving organic-shaped air pockets between the glass. Sometimes it looks like the subject is living in a lava lamp. This damage is irreparable. Do not attempt to separate the two panes!

The *ventral ambrotype* is normally found with two panes of glass, but is confusingly one of the varieties of *single-glass* ambrotypes. The collodion is on the ventral (front) surface of the plate. To protect the delicate collodion surface, the ambrotype plate is placed under a brass mat and cover glass. Since the plate is collodion side up, images are laterally reversed, like daguerreotypes. *Ventral ambrotypes* can easily be identified by having their brass mats underneath the top pane of glass.

The *dorsal ambrotype* corresponds to an open-faced sandwich, albeit an open-faced sandwich that is upside

down. Also called *single-glass ambrotypes*, these do indeed only need one pane of glass. Since the collodion surface is dorsal (on the back), the plate serves as its own cover glass; no second pane is needed. Because the image is seen viewed through the back of the plate, these ambrotypes are not laterally reversed. Dorsal ambrotypes are usually presented with a brass mat on top. The disadvantage of the dorsal ambrotype is that if the back is varnished or painted black, as is usual, any shrinkage or cracking of the back-painting will damage the image.

If you are taking apart or cleaning an ambrotype, it is important to keep track of the order of the pieces, and to know which side the collodion is on. When reassembled, the collodion must remain protected from scratches, under glass (if *ventral*) or protected with a case (if *dorsal*).

Do not attempt to clean the collodion image side of an ambrotype plate. Collodion dissolves in water, alcohol, or almost any solvent. Cleaning the collodion image side of an ambrotype will give you a clear pane of glass! When cleaning the "safe" side of the glass, be sure that no moisture wicks around to the collodion surface.

Filling the shadows

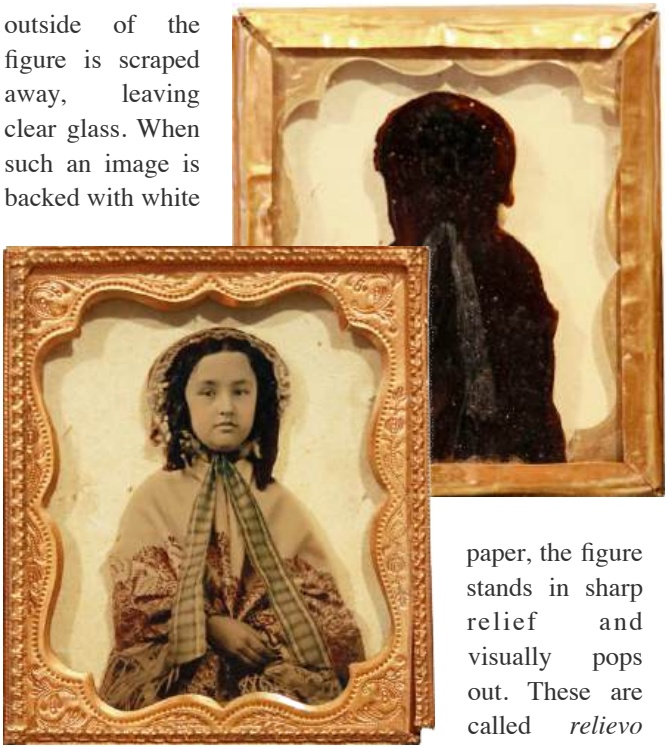
To appear as a positive image, ambrotypes must be placed against a dark background. Some cases were made to hold ambrotypes; these contain a black lining instead of the usual white paper. Occasionally you will find a blackened metal plate behind the glass, usually with the four edges crimped upwards to avoid scratching the collodion. Occasionally a black piece of cloth will be used. Most commonly, the back of the glass is painted with a black varnish. This varnish can crack and flake off, causing cosmetic problems if the ambrotype is a *Cutting's style* or a *Ventral* ambrotype, but causing irreparable damage to the collodion surface of a *dorsal* ambrotype.

Photographers sometimes saved themselves the bother of painting the back of the plates black by using dark glass. These *Ruby Ambrotypes* are so named because they were usually made with dark red glass, although brown, green or blue glass ones have been found. You can see the color, and the fact that the ambrotype is really a negative, by shining a light through the ambrotype plate.

H. Draper first described this method in an 1 October 1856 review of *Humphrey's Journal*, although they may have been made in England up to two years earlier.[44] Ruby and clear glass ambrotypes continued to be made side by side throughout the 1860s. The majority of ruby ambrotypes are *ventral*, although ruby *Cutting's style* ambrotypes do exist.

Relievo

An interesting variant was to paint the back of the plate black, but only under the subject. Often (but not always), the collodion outside of the figure is scraped away, leaving clear glass. When such an image is backed with white paper, the figure stands in sharp relief and visually pops out. These are called *relievo ambrotypes*.



Michael Rhodes

On rare occasions, a background illustration will be placed behind the relievo ambrotype, transporting the subject to a distant landscape.

Decline

The ambrotype fell out of use in America around 1865, with a few notable exceptions.

In the late 1860s large numbers of honeymooners began arriving at Niagara Falls, often having their photograph taken outdoors next to the falls. Niagara Falls had been photographed many times before, but those pictures were of the falls, with human figures incidentally added to establish a sense of scale. The honeymoon photograph featured the couple, with the falls incidentally behind them, as proof that "we were there." These ambrotypes are BIG – half plates and whole plates. They are mostly the work of Samuel Mason, who, until ~1872, had a valuable concession to take photographs at the falls. It is fitting that the American ambrotype should end thus, with a big and grand American subject.

Jon Mendlovitz

In Britain, the ambrotype moved outdoors and took the niche that in America belonged to the carnival and seaside tintype. Ambrotypes dating into the 1890s can be found, usually in a distinctive patterned mat that is easily confused with the much earlier American *Hayden* mat of 1855 (see page 30 for detailed comparison of the two mats). Cases are usually plain, flat-backed, and without a cover. Often these cases have a small ring at the top for hanging.

Tony Sammut iCollect

Illustration needed

As the Ambrotype disappeared in America, it became popular in Japan. Japanese ambrotypes from the Meiji Era (1868-1912) are commonly found in distinctive Kiri wooden boxes. They most commonly date from 1878 through 1898.

Pannotypes

Infrequently materials other than glass were used as backing for the collodion. Patent leather, black oil cloth, wood, or black paper were all used. In some cases an ambrotype on glass was produced in the normal manner, and the collodion image was floated off of the glass onto the new backing. In other cases the collodion was put directly on the alternate backing before exposure and development. *Pannotype*, from the Latin word for cloth, is a catchall term for all of these processes. They are rare, about 0.1% of all cased images.[45]

The advantage of the pannotype over the ambrotype was that it was shatterproof. But the flexible backing takes its toll on the collodion image. After a century and a half of flexing and flaking, most pannotypes are in very poor condition.

One alternate to glass that does not suffer from these defects is a sheet of blackened iron. This variation on the ambrotype was such a runaway success that it has earned its own name: the *tintype*.

Opalotypes

Easily confused with the ambrotype is the *Opalotype*, also called *Opaltype*, *Milk Glass Ambrotype*, or *Milk Glass Positive*. Unlike a traditional ambrotype, an opalotype will appear as a positive image even if viewed by transmitted light. An opalotype is made *from* a negative, just like any other black-and-white print of the past century and a half, albeit one printed onto opaque white glass. Unlike the daguerreotype, ambrotype or tintype, the opalotype plate was never inside a camera; it was created in a darkroom from a negative. Consequently, an opalotype is not necessarily unique, and is not laterally reversed.

Opalotypes were invented in 1857 by Glover and Bold of Liverpool, but remained rare luxury items until 1880, when opal glass prices fell dramatically.[46] Consequently few would have originally have been housed in leather or union cases, both of which fell out of use around 1865. Opalotypes were produced as late as the 1930s, so if you find an opalotype in a daguerreotype case, there is a good chance that the opalotype and the case do not belong together. If the opalotype is loose in its case, or does not correspond to one of the standard daguerreotype plate sizes, this is a sign that a relatively recent opalotype has been placed in an older case. Fin de siècle and twentieth-century opalotypes can usually be identified by the subjects' more modern hair and clothing style, as seen above.

xxjenaxx

LOC

TINTYPES

This chapter will come in the next edition.

The tintype was patented in 1856 and remained in use until the early 20th century. Early tintypes are often cased and were made to standard daguerreotype sizes. Most tintypes after 1865 are uncased: mounted on CDV cards, in albums, or loose.

MATS

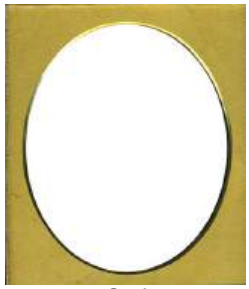
The five mat shapes to the right, with dates, are the essence of this book in a nutshell. Everything else is detail.

Sometimes daguerreotypes have lost their cases, sometimes there is no preserver, but early photographs almost always have a period mat, which provide the easiest way of dating your image. Mats were made with different shaped openings, of different materials, and with different designs stamped or printed on them. There are hundreds of different mats. Fortunately, some were used only for a few years, and thus let you pinpoint an image's date almost to the year.

This chapter is a summary of mat shapes and styles as they evolved; for more detail see Table A, which illustrates hundreds of mats. But do not date your image solely upon the mat; you must remember TIMBER!, "This image may be erroneously repackaged!"

The overall trend from 1840 to the 1860s is of simplicity to complexity. Most mats before 1850 are plain. Simple patterns were introduced around 1850; highly decorated mats became the norm by 1860. But the trend was not uniform; exceptions will be found.

Mats come in over a dozen different shapes, five of which, shown to the right, account for 95% of all cased images.



Oval
1840 - 1865

Octagon
1842 - 1855

Elliptical
1845 - 1852

Double Elliptical
1846 - 1865

Nonpareil
1850 - 1865

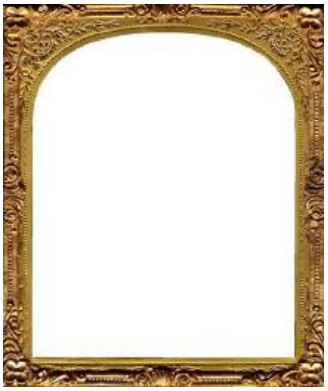
The 1840s

The earliest daguerreotypes were behind simple rectangular or oval mats. Rectangular mats are rare, generally dating from the first half of the 1840s. Oval mats, by far the commonest (nearly half of all cased images sport oval mats), remained popular throughout the cased image era, although plain oval mats are rare after 1856.

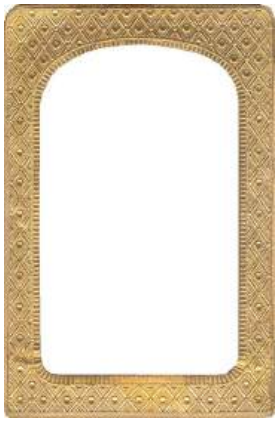
Rectangle
1840 - 1845

The octagon mat was introduced around 1842, and became the most popular shape through the rest of the decade. *Double Elliptical* mats (an unfortunate term, but this is the phrase used by curators worldwide) were introduced around 1846, and remained popular throughout the cased image era, although plain ones are rare after 1860.

The elliptical mat poses a chronology problem, as this shape was used for three distinctly different styles during different periods. The pebbled brass elliptical mat was used in the 1840s. The elliptical mat faded from use in America around 1852, but the shape remained popular in Britain throughout the 1860s. Plain British elliptical mats are common in the 1850s, and were joined in the late 1850s by ones bearing fine tracery. A third style of elliptical mats were introduced in America around 1865, and are Carte de Visite sized.



British Elliptical
~1860



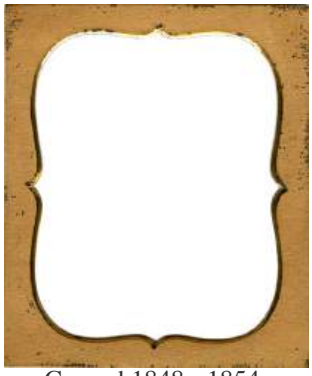
Carte de Visite elliptical
~1865

Paper mats are common in the 1840s, but are only found in the commonest shapes of that period, octagon or oval.

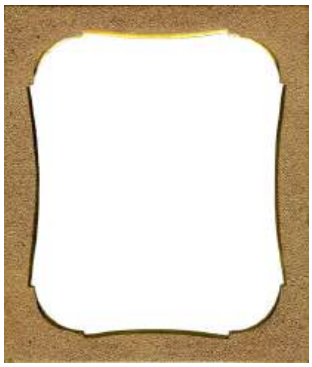
When you take into account the designs stamped onto brass mats or printed on paper mats, there are literally hundreds of different mat designs. Table A illustrates these, with dates for each.

The Cambrian explosion

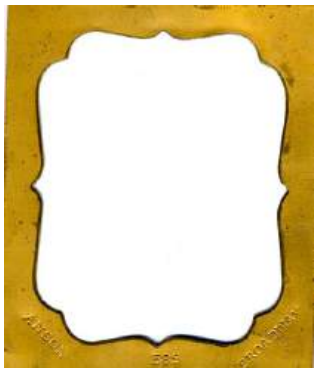
Around 1850 there was a veritable Cambrian explosion of mat shapes. Most of these were short lived, which is convenient for dating images from around 1850. *Cusped*[47] led the way, in 1848. This was soon followed by increasingly ornate patterns such as *Cartouche*,[48] *Nonpareil* in 1850, and *Alhambra*[49] in 1851. Only nonpareil would survive, becoming in time the most popular shape for highly decorated mats in the 1860s.



Cusped 1848 - 1854



Cartouche 1848 - 1851



Nonpareil 1850 - 1865

Alhambra 1851 - 1853

The few other rare mat shapes can be seen in Table A in the pages for *Sixth plate mats – Miscellaneous*.

1840s decorative mats

Notable exceptions to the simplicity of early mats are a few rare brass and paper mats from the early to mid 1840s. Daguerreotypes from this period are scarce, and decorated mats from this period even more so. More research is needed to identify and date these. Here is an early decorated gilded paper mat, circa 1844.

Jason Wright

It is believed that decorated gilded paper mats date from 1844 to 1846. Again, more research is necessary to identify and date these rare mats.

Diane Smith

Somewhat more common, although still unusual, are the so-called *Philadelphia mats*. These painted dark cardboard mats come in a wide variety of designs and colors. Like the decorative gilded paper mats, they date from 1844 to 1846. A few larger (half plate) daguerreotypes from as late as 1850 have been found behind this style mat; this may be a statistical fluke.

1850s brass decorative mats

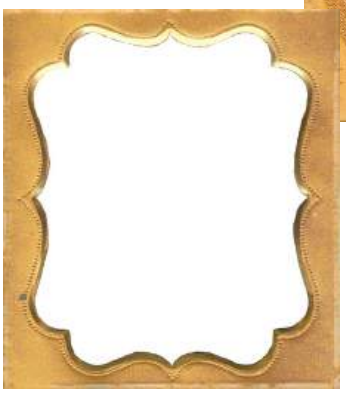
Brass mats with decorative stamped designs only became common after 1850. Conventional wisdom says that a single line of dots around the mat opening was the first decorated design. The evidence does not support this, instead dating the common *Dots* mat to 1854 to 1859. The first decorated brass mats (ignoring those rare examples from the early 1840s) contained disjointed, *sparse* designs. These date from 1850 through 1855. There are many variants illustrated in Table A.

John Rochon

Around 1852 a very thin foil mat was introduced. Highly decorated with fine detail, these mats are always backed with cardboard for stability. They bear a superficial resemblance to the highly decorated lightweight brass mats of the 1860s, but these mats are of different material and date no later than 1856. Some of these mats are slightly larger than normal plate sizes.

The popular *racetrack* design was introduced around 1851. Increasingly complicated variants would appear over the next few years, before this style faded from use around 1859. It was exceeded only in popularity by the simple outline of *dots* design, perhaps the most popular of all mat designs.

John Rochon

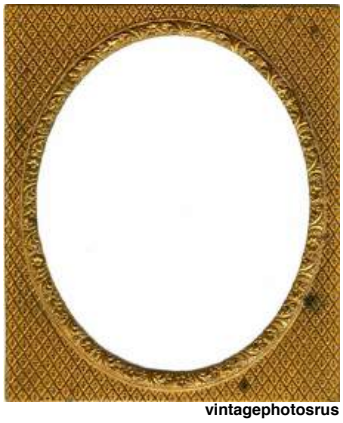


John Rochon

As the 1850s progressed, heavier brass was used for mats. Many of the most interesting designs of these heavy mats are from the mid 1850s. Mats began to depict objects such as roses, thistles, birds, and shields. The trend appears to have started in 1854, with mats showing recognizable examples of specific plants. The craze for floral mats burned itself out by 1858.

John Rochon

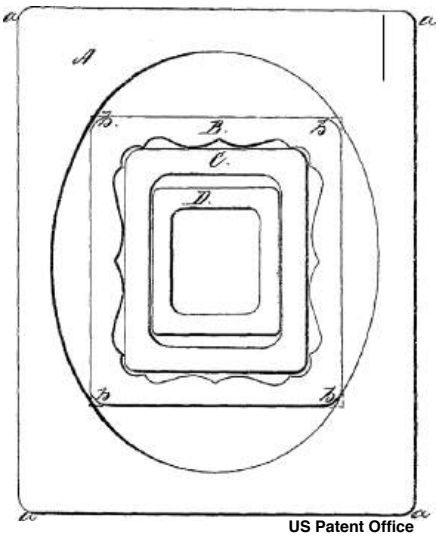
One other mat deserves special mention. In 1855 Hiram Hayden, of the firm *Holmes Booth & Haydens* (there were two Hayden brothers in the firm), was issued the first patent for a mat design. This beautiful, heavy mat was made in several sizes and with several shaped openings. Early examples of this mat are labeled on the back with the words "Patent Pending," but most bear "Patented October 9, 1855" on the reverse. Oval versions of this mat are easily confused with a much later British mat, which commonly contain ambrotypes or tintypes from the 1870s or 1880s. This later *Faux Hayden* mat is lightweight (the original Hayden mat is heavy brass) and lacks the narrow outer ring around the opening, which is indicated on the Hayden mat (left) between the white triangles.



vintagephotosrus

Thin brass in the 1860s

Brass mats filled with stylized flowers and geometric designs were used in the 1860s. The brass sheets were thin and light, in contrast to the heavy brass used in the 1850s. The earliest lightweight mats, from about 1858, had square corners, but beginning around 1860 mats were made with rounded corners. These corners would not be visible in the final cased image, being hidden under the metal frame or *preserver*. They made manufacturing cheaper by allowing mat makers to cut multiple mats from one thin sheet of brass, nested inside each other like Russian dolls. This innovation was eventually patented in 1861 by John Dean; "Dean's Patent" is often stamped on the hidden edge of the mat.[50]



US Patent Office

Almost all mats from the 1860s are made by one of four companies, who conveniently stamped their names on the edges of their mats:

- The partnership of *Cooke and Emerson*, 1858, was replaced by that of Dean & Emerson in 1859.[51] They manufactured around 80 different daguerreotype mats each stamped with a number. Conveniently, these numbers appear to be chronological.

- The venerable *Holmes Booth & Haydens* firm, manufacturers of photographic equipment since 1853. Their mats are similarly numbered, possibly chronologically.

- The last of the "Big Three" mat manufacturers was *Scovill*, brass makers since before the invention of the daguerreotype, and daguerreotype plate makers since the 1840s. Their mats are all identified with a three-digit number, arranged by size.

- The only other lightweight mats stamped with their manufacturer's name are those few by the *Gennert Bros*. of New York.

With the outbreak of the Civil War in 1861, patriotic and military themed mats became popular. As these were manufactured in the North, they took on unabashedly Unionist themes. Typical is Holmes Booth & Haydens' mat


Liz Adams

paraphrasing Daniel Webster's famous words (during the Nullification crisis of 1829), "Liberty and Union, now and forever, one and inseparable." A case could be made that the Scovill mat bearing the years "1776 – 1861" targeted Southern sympathies, as southerners at the time considered the "Revolution of 1861" to be the fulfillment of the unfinished revolution of 1776.

Photographers' names

The busy, fussy designs of 1860s mats left no room for additions, but earlier mats from the 1840s and 1850s are often graced with the photographers name and, sometimes, address. Craig's Daguerreian Registry is an invaluable resource for dating these mats.

Among the earliest of these signed mats are ones stamped PLUMBE, after John Plumbe, who pioneered the first chain of daguerreotype studios. Few Plumbe mats sit atop images taken by John Plumbe personally; his name was attached to all daguerreotypes taken at any of his twenty-five studios in twenty cities.[52]

Mathew Brady likewise stamped mats with his name for use at his chain of studios. This flair for self-promotion goes back to the dawn of his career when, as a young daguerreotype case maker, he incorporated his name into the designs of some of his cases. As an unknown twenty-year old, this shows either remarkable foresight on the collectability of anything marked "Brady," or a sure knowledge that success comes to those skilled in self-promotion. Brady was a skilled manager, but only an

intermittent photographer; his poor eyesight kept him away from the camera during most of his career. “Photograph by Brady” should properly be translated as “Photograph by an unknown operator working for a Brady Studio.”

Patents

The patent dates on all lightweight 1860s mats and on the *Hayden* mat are discreetly hidden. Other mats bear patent dates in clear view; these are patents not for the mat design but for the photograph within.

The earliest of these are on British daguerreotypes with “Beard’s patentee” prominently displayed. In 1841 pioneering British daguerreotypist Richard Beard purchased Daguerre’s license to make daguerreotypes in England and Wales (but not Scotland!). This was “Beard’s Patent,” British patent 8194. He farmed out this license, with the licensees’ mats stamped “Beard Patentee.”[53] The legal restrictions and corresponding high cost of daguerreotypes in England meant that daguerreotypes were never as popular there as in America. Beard’s patent expired in 1853, as the ambrotype was about to replace the daguerreotype, thus making Beard’s patent irrelevant in any case.[54]

Timothy Smith

On the other side of the pond, John Plumbe was assigned ownership of Daniel Davis’ 1842 patent for coloring daguerreotypes.[55] Soon afterward, in 1843 Plumbe advertised the “Plumbe National Daguerreian Gallery of Patent Colored Photographs.”[56] Thus words “Plumbe's Patent Oct 22 1842” serve to date the image to somewhere in the mid 1840s.

The commonest patent is found on mats of those who licensed the ambrotype patents of James Ambrose “I’ll see you in court” Cutting. Mats bearing a patent dates of “July 4 & 11, 1854” normally enclose *Cuttings Patent ambrotypes*; if they are found over daguerreotypes, tintype, *ventral ambrotypes*, or *dorsal ambrotypes*, the mat is likely not original to the image. Conventional wisdom dates

Cutting’s style ambrotypes to the first half of the ambrotype era, 1854 to 1859.

Mats for octagonal cases

An octagon-shaped case requires, naturally, an octagon-shaped mat. One would assume that there exist mats that are octagonal on the outside, specially designed for octagonal cases. This appears not to be true. Mats for octagonal cases are regular mats, cut down to fit.

J D Sills Sr

For more information

See Table A for a detailed catalog of mat designs. **In this beta version of *Fixed in Time*, only sixth plate mats are detailed.**

PRESERVERS

Preservers are the little metal frames that hold together the image, mat and cover glass; they in turn go inside the case. Among collectors it is common knowledge that preservers were introduced in 1847, and that daguerreotypes without preservers date from before 1847. The first part of this statement is approximately true. The second part most assuredly isn't. It would be eight years before the use of preservers was universal.

Once you have tentatively dated your image by finding the dates associated with the mat and the case, you can verify your finding by identifying the preserver style and seeing if its date overlaps those of the mat and case.

If the preserver is more recent than the mat this may be an indication that the case was not original to the image. Often a preserver was added later to fit the image tightly and securely into a slightly loose case.

Thomas Wharton, in Britain, patented the earliest preserver on 24 August 1841. These wrap around the back of the plate, protecting it with a solid back. The edges of the preserver are then folded around the sides of the plate, securing everything together. Many of these are found on daguerreotypes made under Richard Beard's license, with "Beard Patentee" stamped on the mat.

Timothy Smith

The Wharton preserver, however, was a beautiful evolutionary dead-end. All later preservers are open at the back.

American preservers were introduced in 1847 (possibly 1846), but were not initially used by all daguerreotypists.

From 1847 through 1850, about half of all daguerreotypes bear preservers. Starting in 1851 the percentage of those without preservers declines, until by 1855 all daguerreotypes and ambrotypes (tintypes had not yet been invented) were sold with preservers.

The earliest of these preserver styles has a rope-like pattern, with small tight strands. These preservers they are often quite narrow. They date 1847-1850; their peak years were 1847 and 1848.

Beginning in 1849, many other preserver designs appear. These simple preservers, which I call *standard preservers*, display repeating patterns. The earlier ones are generally simpler, with a twisted rope pattern or a simple hammered edge. More complex floral designs become popular in the mid 1850s. These, and others, are illustrated and dated in Table B: Preservers.

Beginning around 1856 a new style of preserver appeared, featuring bilateral symmetry. Because these styles imitated the fluted columns and acanthus leaves found in classical architecture, I call these *classic preservers*. There are about a dozen different *Classic* sixth-plate preserver designs; see Table B.

Note: There are a few early preservers that are bilaterally symmetric, dating from as early as 1850. They are categorized as *standard*, as they do not resemble a typical *Classic* preserver.

Preservers of the 1860s are distinctive. They have reinforced corners and often a decorative bump in the middle of each of the four sides. I dub these *baroque preservers*. They first appear in 1856, but become predominant in 1859.

There is an intermediate style, containing reinforced corners but no sides bumps. I called these *transitional*, expecting that they would date during the transition from *classic* to *baroque* preservers. To my surprise, the *Transitional* preservers are a late style, a simplification of the *baroque preserver*s. *Transitional* preservers first appear in 1861, and remain common throughout the Civil War, alongside *baroque preservers*.

Some people collect cases, others collect early photographs. A few collect especially interesting mats. But no one, I suspect, concentrates on preservers.

Only two preservers are worth noting from a design perspective. The *star* preserver is the only preserver whose design has been patented.[57] I've found enough ninth plate examples from 1861 to indicate that the preserver was in use before the 1862 patent was issued. The sixth plate version appears in 1862, and both were common through 1864.

The only really interesting preserver since Wharton's 1841 design is the *Anglo-American* dual patriotic preserver, containing symbols of both countries, opposing each other in pairs: the American Eagle and the British Lion, the Stars & Stripes and the Union Jack, a liberty cap and a royal crown (a great example of cognitive dissonance!). This dates from around 1860, plus or minus two or three years. I don't know whether this is an American or British design. Perhaps it was Canadian, as the Canadians (shortly before confederation) had a special interest in keeping Angle-American relations smooth. If anyone knows, please tell me.

LOC

LEATHER AND PAPER CASES

In 1861, Ralph Hill was issued a patent for a "daguerreotype-case" even though the daguerreotype was virtually extinct.[57] Hence calling any early photograph case (even one holding an ambrotype or tintype) a "daguerreotype case" is not historically incorrect. However, it is incorrect to call any fancy leather-over-wood case a "union case", as many sellers do. A true union case is thermoplastic, being a *union* of "gum shellac and woody fibers."[58] These cases will be discussed in the next chapter; this chapter will concentrate on the wooden case, covered variously in leather, paper, or cloth. There is not, unfortunately, any succinct term for "Leather-over-wood, paper-over-wood or cloth-over-wood cases for daguerreotypes, ambrotypes or tintypes." For simplicity, in this chapter I shall call them all *leather cases*, whether real or faux leather.

A leather case is a simple pine box, covered with embossed leather, paper or cloth. It may be held shut with a brass hook and eye, a pushbutton, or a clasp enclosure:

Construction quality remained high until the mid 1850s, when photograph prices came down, and drove the price of leather cases down in parallel. The introduction of fancy mother-of-pearl and union cases in the early 1850s left the low end of the market to the leather case, which was largely replaced by the inexpensive paper case around 1860. Paper and true leather cases and are both embossed and varnished; they are often hard to tell apart. The surest way to tell is to look for areas of wear. Leather and paper feather differently; the wood fibers from a paper case will be visible with a powerful magnifier. Another clue is to look at the hinge. Leather cases are usually hinged in leather; paper cases are usually hinged with cloth.

There are hundreds of different case designs. Few designs were used for more than a few years, so identifying the case is the easiest way to date your photograph. Easiest, but also the least reliable; remember TIMBER!, "This image may be erroneously repackaged!"

Just as the camera is older than photography, the picture case preceded the invention of the daguerreotype. In the 1830s, small morocco leather cases were used to house miniature paintings on ivory. Even after the invention of photography, "daguerreotype" cases were sometimes used for other purposes. James Wentworth Szymanski illustrates, in a 1996 article, two identical cases, one holding a daguerreotype and the other customized to hold drafting pens.[59] "Daguerreotype" cases made to hold pocket watches or presentation medals are also known.

The larger studios, such as Plumbe or the Meade brothers, sometimes used cases with their name stamped into the leather. More common is for the photographer's name to appear inside the case on the decorative velvet pad. By contrast, in Britain it was common practice to stamp the studio name in gold on the exterior of a plain case. American cases identified with a photographer's name can often be dated using Craig's Daguerreian Registry.

In only a few instances did leather case makers sign their work, usually with a printed lining placed inside, underneath the photograph.[60]

They are, in alphabetical order:

- Mathew. Brady – Knowing he would someday be famous, the twenty-year old Mathew Brady cheekily embossed "M. B. BRADY. CASE MAKER. N. Y." on the exterior of two different case designs, 1843 - 1845.[61]
- Levi Chapman – dealer of daguerreotype apparatus 1840 - 1857. He is listed in the New York City directory as a case maker 1851 - 1855.
- Henry A. Eickmeyer – Philadelphia case maker 1849 - 1856. He patented the *Eickmeyer case* in 1855.
- Robert Jennings – Philadelphia case maker 1848 - 1853.
- Ebenezer Larwell – Newark case maker 1840 - 1853. He patented a double-door case in 1849.
- John Plumbe, Jr. – Boston case maker beginning in 1843. He expanded to operate a widespread daguerreotype studio chain but declared bankruptcy in 1847.[62]
- Noah Simons - Philadelphia case maker 1846 - 1848.
- Studley & Gordon - Boston case makers 1847 - 1848.
- Hiram Studley – Boston case maker 1848 - 1849.
- William Shew – Boston case maker 1844 - 1848 and subsequently a daguerreotypist. It is not known if he produced cases after 1848.

The embossed leather pieces that grace the case lids were usually made by a separate embossing company that cut the pattern on a brass cylinder die.[63] Because of this, the same design is sometimes found on cases made by different makers. Table C catalogs these many case designs, both signed and anonymous, with dates of use for each. If your case does not appear in the table, here are some general guidelines you can use to determine if your case is an early one:

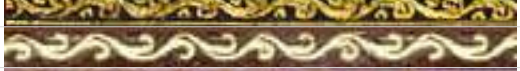
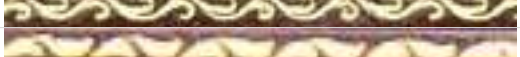
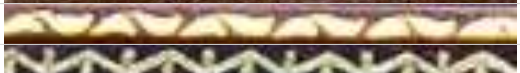
- Fliptop cases: In the early 1840s it was common for cases to be hinged at the top (Most cases open on the side, with the photograph displayed inside on the right). Fliptop cases date 1840 - 1844.
- Metal hinges: Metal hinges, always uncommon, were occasionally used through 1846. After that leather hinges are universal, the exception being the later Boston case or other pushbutton cases, which often used metal hinges.
- Arched lids: Early cases are perfectly flat on the bottom with a noticeably arched lid. By the mid 1840s cases are more symmetric, with slight arches to both the front and back sides of the case.
- Single sided: Decorated cases with blank backs were popular throughout the 1846. By 1853, all daguerreotype cases were decorated on both sides, usually with the same design on each side.
- Silk pads: Silk pads were the rule before 1848, and are found occasionally through 1855. Dark green silk is generally found through 1844, purple through 1847, maroon only during the years 1848 and 1849, and rose (by far the commonest) any year up through 1855.
- Ungilded leather: Gilding patterns were introduced in 1847 for leather cases, although ungilded leather cases remained common through 1855; cloth and paper cases from any year are usually ungilded. There are dozens of different gilding patterns, many of which were used for only a few years. See the next page for a table of common gilding patterns and dates of use.
- Single-piece tops: Early cases used a single piece of pine for the front (or back) of the case. As this tended to warp, it became the practice to use three pieces of pine, with the middle section having its grain running perpendicular to the other two.[64] Often this seam will be visible as two horizontal cracks in the leather.
- Diagonal-cut corners: Cases from the 1840s usually use a diagonal cut on the four side rails surrounding the photograph. Later cases generally use a mitered joint.[65]

Case gilding patterns

The designs are given temporary but distinctive names simply so that I can keep them straight while dealing with 2,100 dated cased images in my database. These names are likely to change in the next edition.

Key to dates:

1848-52	1848 to 1852, reliably dated
1850	1850 only, reliably dated
~1850	1850 ± 1 year, probably
~1850?	Date uncertain
(1846?-) 1848-52 (-54?)	1848 to 1852 reliable, possibly extending 1846 to 1854.

A440		(1849?) 1851 - 1853 (1857?)
ArtDeco3		(1853? -) 1855
ArtDecoPath		1854 - 1856
ArtDecoTulips		1856 - 1858 (-1861?)
BabyBracelet		~ 1850 ?
Blocks		~1856 ??
BroadComedy		1854 ? / 1858 ?
BrokenChain		1852
Cairo		~ 1857/58
CharmBracelet		~ 1850 ??
ChristmasCactus		1853 - 1858
Crowns1		1848 - 51
Crowns2		1854 - 56
Dots		1854 - 1855
Eighteenfiftyish		1850 ??
FancyBracelet		1852 - 1854
FlapFrieze		~1858
Garland		(1849? -) 1851 - 1854
Garlic		~1858 ?
Greek		~ 1848 ??
LeafRing		1852 - 1853 ?
Leaves		(1850?-) 1851 - 1863
Lines		(1847?-) 1848 - 1856 (-1858?)
Loopy1		~1853
Loopy2		~1855 ? - ~1858 ?
Loopy3		1856
MWMW		~ 1856 ?
OneKHz		~ 1856 ?
OpenChain		1860 - 1861
PaisleyFilled		(1850?-) 1851 - 1857
PaisleyOpen		1854 - 1855 ??
PeaVine		1855
Potstickers		(1852?-) 1854 - 1855
Rollers		1853
SimpleBracelet		1854 - 1858
StraightBracelet		1854 - 1856 (-1858?)
StrangeBracelet		1849 - 1852 (-1856?)
Swag		1849 - 1865
Twist		1849 - 1864
Waves		1850

UNION CASES

This chapter is not yet written. In its place I include portions of my daily January 2014 reports to the Facebook Daguerreian Society and Victorian Images groups.

January 17th

(Singing) “Look for….the Union label…”

S. Peck and Company and A. P. Critchlow and Company both competed in making Union cases, and both claimed to be the originator of the case. Both companies put labels inside their cases; these labels changed often as new patents were issued or ownership of the companies changed hands. In THEORY, many daguerreotypes and ambrotypes can be dated fairly accurately by the case labels.

Labels issued by S. Peck's company:
1) Some of Peck's cases lack a patent date
2) A single patent date of October 3, 1854.
3) The addition of Halverson's Patent August 7, 1855
4) The addition of a 3rd patent, also to Peck, of Feb 5th, 1856
5) In 1857 Peck sold the company to Scovill, whose name replaces Peck on the labels.

Presumably these three style labels describe a chronology.

Critchlow's cases have a similar variety of labels:
1) His (presumably) earliest cases make no mention of a patent.
2) “Patent applied for”.
3) “Patent applied for” replaced with “Hinge patented Oct 14, 1856”.
4) A 2nd patent date of April 21, 1857, written by hand in flowery script (see picture); these were presumably manufactured shortly after the 2nd patent was issued.

5) Both two patent dates typeset
6) In 1858 the company's name was changed to reflect new ownership, to “Littlefield, Parsons, and Co.,” and the cases had the new company name and “Successors to A. P. Critchlow & Co.”
7) “Successors to A. P. Critchlow & Co.” omitted, only “Littlefield, Parsons, and Co.” appears.
8) In 1866 the company was renamed the Florence Manufacturing Company.

This is a sequence of 8 different labels, presumably in chronological order.

To test whether my chronology sequence is correct, I looked at the 40 cased images containing Peck, Littlefield, Scovill, Florence, or Critchlow labels, and for which the date is documented IN SOME OTHER WAY. The answer is probably yes, but the data is messy. Among images objectively dated in the 1850s, the sequence seems valid. But there are a huge number of images dating from the 1860s that appear to be in earlier cases. This is consistent with my data on images from the 1860s in general (in any kind of case, or no case), which often are packaged in a mismatch of mats, cases, and preservers from different periods. Why this is so I do not know. Many dated images from the 1860s are collectable images of Civil War soldiers; I suspect that collectable images are more likely to be case-swapped than the average. Perhaps cases were unavailable in parts of the country during the Civil War, and old parts were reused.

ALTERNATIVE CASES

For ten years, the leather daguerreotype case did not change much. Apart from the continual appearance of new cover designs, all daguerreotype cases were basically the same. Then, around 1850, people wanted…alternatives. There was an explosion of different case types to accompany the similar Cambrian explosion of different mat shapes.

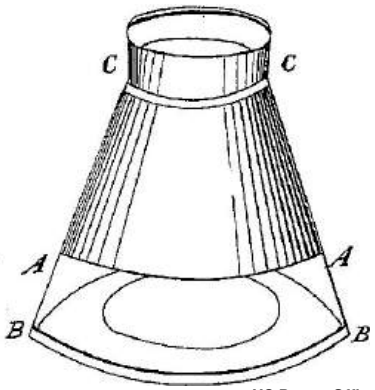
The Union case, introduced in 1853, was just one of these alternatives. The runaway success of the union case would in time eclipse most of the other alternatives, and, I suspect, lead them to their premature extinction.

I call these *alternative cases* rather than *novelty cases*, as most of the cases in this chapter bear a superficial resemblance to leather daguerreotype cases. There exist far more alternative and novelty cases than are shown in this chapter. I have concentrated on only those for which I can establish dates, either by United States patents, or from sufficient dated examples found during my research. For a complete catalog of cases, including rare novelty cases, see Paul K. Berg's *Nineteenth Century Photographic Cases and Wall Frames*. With rare exception, the cases shown in Berg's exhaustive catalog are not provided with dates.

First patent

Ebenezer Larwill applied, apparently unsuccessfully, for the first American patent for daguerreotype cases in 1849 with his description of "an Improved Daguerreotype Case" with a cover that opened like French doors.[66]

Maartje de Nie



US Patent Office

In 1850, Ann F. Styles was granted the first American case patent, for a tube-like case with built-in magnifying glass.[67] Surviving examples are rare.

The Boston case

Plain cases are common throughout the 1840s and 1850s. Beginning in 1852 you will find examples of the *Boston* case, which remained in use until 1861. It is so called because of its popularity in that city; many of the daguerreotypes owned by Harvard University and the Boston Athenaeum are in *Boston* cases. They can be distinguished from other plain cases by their pushbutton latches, metal hinges, plain velvet pads, and distinctive domed profiles.

[Illustration needed of profile of Boston case]

Book style cases

Around 1850, the book-style case was introduced. The anonymous creator didn't patent it, which is perhaps why book-style cases are the most common of all the alternative cases.

These cases imitated fine leather books, with gold paint on three edges to mimic the gilt pages of expensive leather volumes. Book-style cases all used clasp enclosures in place of the traditional hook and eye. If made for two daguerreotypes, the two images are usually back to back. This means that not only can we not see both images at once, but that the daguerreian subjects never get private time together when the case is closed.

The spines of these "books" bear words such as "Token", "Gem", "Souvenir" or "Bijou."

The first book-style cases were probably made by the Litchfield Manufacturing Company in 1850, when William Allgood opened the first American paper mache factory.[68] This company was probably responsible for the two most popular book-style designs, the silver wire design, and the mother of pearl floral design, both inlaid in japanned (blackened) paper mache covers.


Ellen Sheffield Wilds

The inlaid silver wire cases date from 1850, the same year the Litchfield Manufacturing Company was established. The more popular mother-of-pearl floral cases appeared in 1851, and remained popular until 1856. The company was sold in 1855, and production of these cases presumably ceased then.

Other book-style cases exist, but in insufficient number for me to establish dates. Cloth bound book-style cases appear to be from the late 1850s. More research is needed to accurately date all these varieties of book-style cases.


Doug Thoma


Doug Thoma


Doug Thoma


Doug Thoma


Nordic Museum

Flap cases

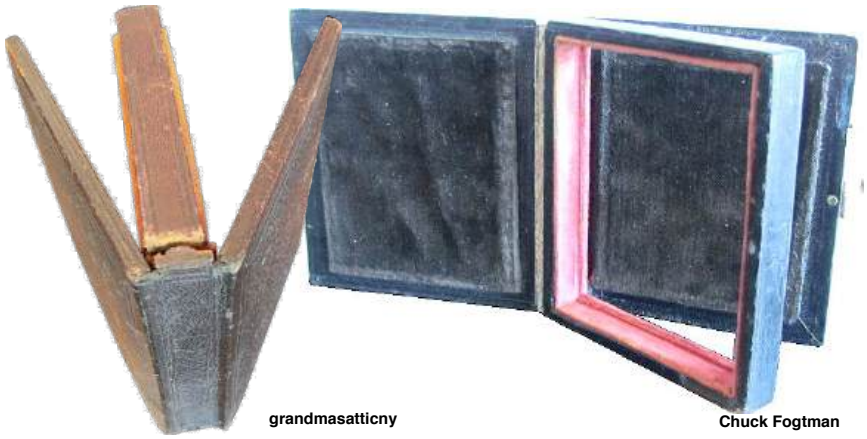
Some book-style cases are wrapped in velvet, with a flap and latch in the center like a briefcase. Somewhat of a mixed metaphor, these book/briefcase cases date from the end of the book-style case era, approximately 1855.

Case illustration needed

As the velvet flap fell from use, plain leather flap cases took their place. Plain leather flap cases date 1855 to 1865, peaking in popularity between 1858 and 1863.

The Brady flip case

In the mid 1850s Matthew Brady, owner of a chain of photographic studios and already famous for *The Gallery of Illustrious Americans,* was an early adopter of Cutting's new ambrotype process. Brady, who was a case-maker before he was a photographer, designed a new case to show off the then novel aspects of an image on glass. Brady's *flip case* allowed the ambrotype to be seen from either side. Brady's use of ambrotypes was brief, as Cutting sued Brady (among others) for patent infringement when he failed to pay Cutting's hefty licensing fee. Ambrotype flip cases presumably date from between 1854, when Cutting received his patents, and 1856, when Brady stopped taking ambrotypes.[69]

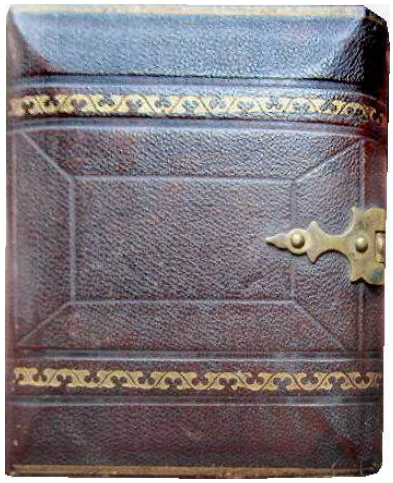


grandmasatticny

Chuck Fogtman

The Eickmeyer case

On February 27, 1855, Henry A. Eickmeyer was granted a patent for "a new and original design for daguerreotype cases."[70] Eickmeyer cases, with rounded edges and a *band* style design, was widely imitated, but true Eickmeyer cases are all marked with his name and patent date on either the inside or outside of the case. Eickmeyer cases, or good imitations thereof, are found from 1855 to 1858.



Doug Thoma

Doug Thoma

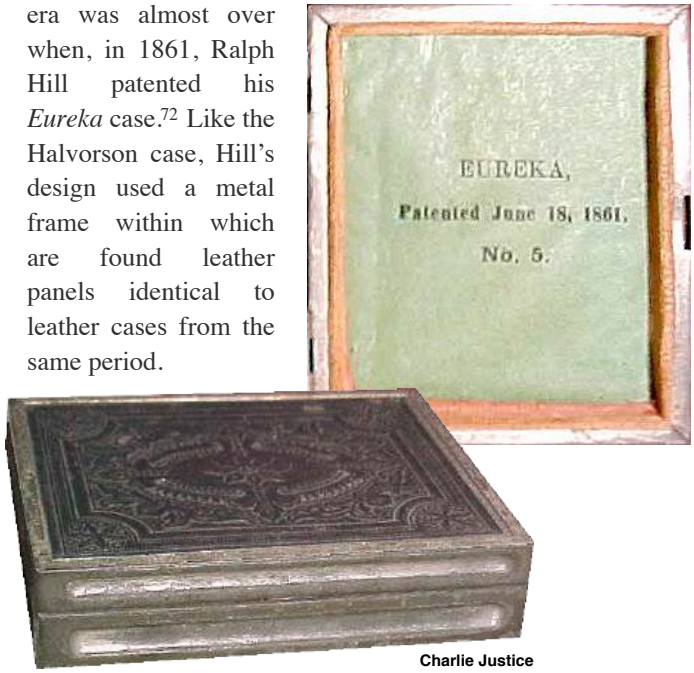
Beginning in 1857, many inexpensive cases weakly mimicked the Eickmeyer design by sporting band designs and using clasp enclosures instead of the usual hook and eye. In every other respect they are traditional cases, lacking Eickmeyer's distinctive rounded edges. The majority of these are ninth cases. They declined in popularity after 1861, but can be found occasionally on images throughout the Civil War period.

Metal-framed cases

theprimitivefold

In 1856, a year after Eickmeyer's patent, Halvor Halvorson was granted a patent for *his* improvement to cases.[71] Halvorson's innovation was to use a hinged metal frame. Because his cases contain leather panels identical to those found on the lids of leather cases, his cases can be dated by matching the leather portion with case designs in Table C, and taking 1856 as the earliest possible year.

The cased photograph era was almost over when, in 1861, Ralph Hill patented his *Eureka* case.[72] Like the Halvorson case, Hill's design used a metal frame within which are found leather panels identical to leather cases from the same period.



Charlie Justice

Oval Velvet cases

After 1856 the pace of innovation slowed. Velvet oval cases became popular around 1859 and remained popular through 1865.

One might reasonably assume that any daguerreotype dates from before the Civil War, as the daguerreotype had been completely eclipsed by the ambrotype and tintype by 1861. But a daguerreotype in an oval velvet case may well be a late-period daguerreotype from the 1860s. My database contains a surprising number of daguerreotypes in oval velvet cases from 1861 to 1865; most of these have a New York City connection. By 1864 there may have been as few as six photographers in the Northeast still using the daguerreotype process.[73] One of them is likely to have worked in New York City and must have favored the oval velvet case.

The oval velvet cases are superficially similar to the cloth-covered hard shell cases popular in the late 1860s through 1880s, but the originals are thinner and flatter than the latter.

CASE PADS

This chapter is not yet written. In its place I include portions of my daily January 2014 reports to the Facebook Daguerreian Society and Victorian Images groups.

January 9th

Silk pads in daguerreotype cases appear to be the rule before 1848, but continued to be used, although in decreasing proportion, into 1855. Green silk is generally 1844 or earlier, although I do have a few late outliers. Purple silk is any year up through 1848. Rose and Red, by far the commonest, range 1846-55. Velvet pads containing a large flower or leaf first appear in 1848. Starting in 1850, fancy decorative velvet pads appear.

January 22nd

The pads on the inside of lids of leather cases sometimes contain a single large leaf or flower. These appear to have become suddenly popular in 1848, and remain popular through 1851. As the flowered brass mats get introduced (around 1854), the flowered velvet pads drop out of use. This is odd; it is as if the flowers have migrated from the velvet to the brass.



REVENUE STAMPS

"Be it enacted by the Senate and the House of Representatives of the United States of America in Congress assembled, That … Photographs, ambrotypes, daguerreotypes, or any other sun pictures, except as hereinbefore provided, upon each and every picture of which retail price shall not exceed twenty-five cents, [shall be taxed at] two cents, …"

- Internal Revenue Laws Act, 30 June 1864[74]

By act of Congress, the Federal government taxed photographs from August 1864 to July 1866. The tax was collected by placing revenue stamps on the back of all photographs. Thus the presence of a revenue stamp is a clear indication that the photograph was sold in the two year period beginning in August 1864.[75] The amount was based on the cost of the photograph, including case if any. The tax was set at:

- 2¢ for photographs costing up to 25¢
- 3¢ for those costing between 26¢ and 50¢
- 5¢ for those between 51¢ and $1.00

For more expensive photographs, an additional 5¢ tax was required for every dollar or fraction of a dollar of cost.[76] An amendment allowing one cent stamps for photographs costing 10¢ or less was passed in March 1865. Cased images always cost more, but you may occasionally find multiple 1¢ stamps on a cased image. This dates the image to March 1865 or later, since photographers would have no need to stock 1¢ stamps before this time.

If the value of the stamps is only 1¢ or 2¢, this is a clue that the photograph was not bought with a mat and case, and therefore may not be original to the mat and case it is now in. Ninth plate cased tintypes and ambrotypes usually cost more than 25¢, and therefore would require a tax of at least 3¢. Sixth and quarter plate ambrotypes and tintypes usually have a 5¢ stamp. If they were sold with a union case, the price, and therefore tax, could be much higher.

Revenue stamps were first issued in October 1862, when new taxes required revenue stamps to be affixed to legal documents, "proprietary items" (matches, patent medicines, perfumes…), playing cards, and more. Two years later the same stamps, labeled "Bank Check", "Proprietary", "Playing Cards", "Certificate", "Telegraph", etc., were used for photographs. Photographers were not supposed to use regular postage stamps, but some did on occasion if they ran out of revenue stamps and wished to follow the spirit of the law.

Photographers were required to cancel the stamps with their initials and the date. Some photographers used canceling presses that resulted in dated marks similar to postmarks. Most cancelled their stamps in ink. Unfortunately, among the latter, few followed the letter of the law to include both their initials and date. Sometimes the stamps are simply crossed out with a single inked line.

In some instances, an undated revenue stamp may give a clue to the most likely year.[77] The following stamps were only produced before the tax on photographs began, or early during the tax period, and are therefore found predominantly on photographs from 1864:

- Orange 2¢ Proprietary
- Orange 2¢ Playing cards
- Green 3¢ Playing Card
- Imperforated or partially perforated

The Orange 2¢ Bank Check on green paper, which is quite rare, was issued in June of 1866. Therefore any photograph bearing this stamp can be dated to the last two months during that the tax was in effect.

Various online references claim that the blue 2¢ playing card stamp was introduced in 1866, but neither I nor Bruce Baryla finds evidence for this.

Not all photographs from this era bear stamps. My evidence shows that about a quarter of American cased ambrotypes and tintypes taken between August 1864 and July 1866 have no stamps. There are several reasons why this may be:

- If a customer bought several photographs at the same time, the revenue stamps for the aggregate may be on the back of only one photograph.
- Uncased tintypes were often sold in envelopes, and the revenue stamp may have been put on the envelope.
- Photographs that were gifts were excluded from the tax (if the photograph is inscribed "Gift: no stamp," you can date the photo to 1864-1866, even without a stamp).
- Between October 1864 and April 1865 some studios were allowed to forego the use of revenue stamps on photographs and instead to sent blocks of cancelled stamps, once a month, to the government.
- Stamps were sometimes placed on the inside of the case. If your ambrotype or tintype is not in the original case, the revenue stamp may not be present.
- Photographs of works of art were initially taxed by a different method and did not use revenue stamps. Between April 1865 and July 1866 they were taxed the same as ordinary photographs, and thus bore revenue stamps.
- Photographs sold outside of the jurisdiction of the United States Federal government were untaxed. These include photographs sold in the Confederacy, Canada, Mexico, or anywhere outside of North America.

Taxed photographs in the South

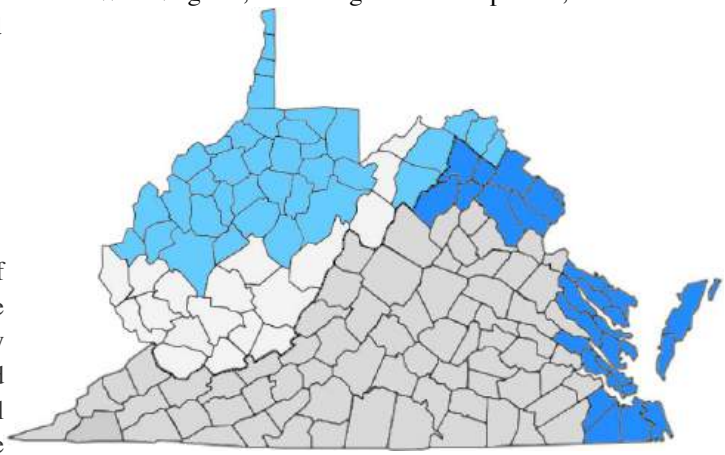
Generally, photographs from the South before the spring of 1865 were not taxed. In the Confederacy, no revenue stamps were used. In those portions of the Confederacy occupied by the Union, revenue stamps theoretically should have been used, but rarely were. After the Federal government established tax-collection districts across the South in the spring of 1865, compliance with the tax law increased. Even then it was widely resisted.

Federal tax-collection districts were established in the following states before the establishment of the photograph tax. Stamped photographs known to be from these states could theoretically date anytime from August 1864 to July 1866:

- Louisiana
- Tennessee
- Virginia (counties colored blue)
- West Virginia (counties colored blue)

Photographs from the remaining states of the former Confederacy, if bearing stamps, generally date no earlier than the establishment of Federal Tax collection districts in those states[78]:

- Alabama: May 16, 1865
- Arkansas: March 1, 1865
- Florida: May 4, 1865
- Georgia: May 30, 1865
- Mississippi: June 2, 1865
- North Carolina: May 10, 1865
- South Carolina May 30, 1865
- Texas: June 5, 1865
- Virginia, remaining counties: May 3, 1865
- West Virginia, remaining counties: April 27, 1865



This chapter is largely based on the research of Bruce Baryla, as shown in his exhibit *The Civil War Sun Picture Tax; TAXED PHOTOGRAPHS 1864-1866*. Thank you, Bruce.

TABLE A: MATS

Mats are arranged by size and mat opening shape.

Double Elliptical mats

Elliptical mats

Octagonal mats

Oval mats

Nonpareil mats

Miscellaneous mats

This beta version of *Fixed in Time* illustrates only sixth plate mats. However, many of the mat designs were produced in more than one size, so these tables may be useful in dating mats of other sizes.

Within each size and shape combination, mats are arranged thematically, and roughly chronologically. Exceptions to this rule are mat designs that are found in many sizes and many shapes; these mats appear at the beginning of their respective size/shape table. Each design is given a date or a range of years of when it was produced.

This is, to my knowledge, the first attempt to systematically catalog daguerreotype, ambrotype, and tintype mats. The names given to these mats are arbitrary, chosen more for my ability to remember them than for any logic. I expect the names to change in subsequent editions. I do not yet wish to introduce any numbering scheme, as I have seen what can happens if you introduce a numbering scheme before completing data collection.[79]

Key to my dates:

1848-52	1848 to 1852, reliably dated
1850	1850 only, reliably dated
~1850	1850 ± 1 year, probably
~1850?	Date uncertain
(1846?-) 1848-52 (-54?)	1848 to 1852 reliable, possibly extending 1846 to 1854

Abbreviations used for mat manufacturers:

D&E	Dean and Emerson
Cooke & E	Cooke and Emerson
HBH	Holmes, Booth and Haydens

smooth

1849 - 59

peak years 1851-56

John Rochon

pebbled

1849 - 1853

John Rochon

dots

1855 - 1859 (1865)

Hayden

1855 - 1859

Patented 10/1855, some say “Pat pending.” 0.036”

Illustration needed

Racetrack Simple

1851 - 1861

peak years 1852-59

anonymous

Illustration needed

r6_vines1

~ 1855

r6_vines2

1855

LOC

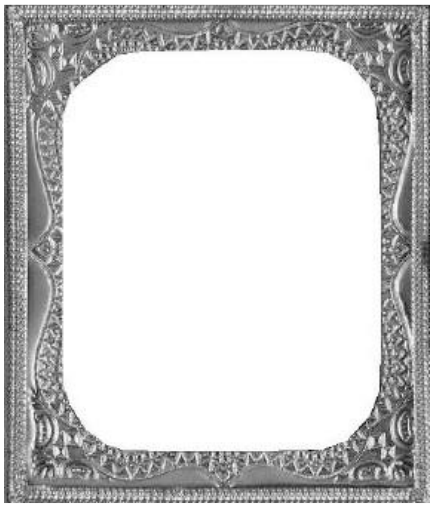
r6_partyline

~~1860

r6_cornerbats

1859-61

thin (0.016”). no maker name. Similar mat in 9th



r6_twodiamonds

~ 1862

same as n6_twodiamonds, different cutout

LOC

r6_venetian

1856/57

LOC

D&E 23

1860 - 1864

similar to D&E_24 (9th)

Sebastian Sanzotta

Illustration needed

D&E 68

Illustration needed

D&E 74

~ 1864

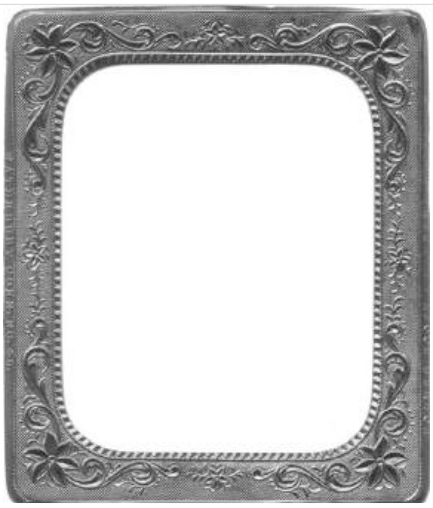
HBH 17

~1863

HBH 32

1862 - 64

resin reproduction exists



HBH 46

~1865

LOC

Mary Jordan

Scovill 822

1861-62

Illustration needed

Scovill 832

early 1860s

Scovill 833

early 1860s

Ellen Sheffield Wilds

Scovill_837

~1865

Chipper Benach

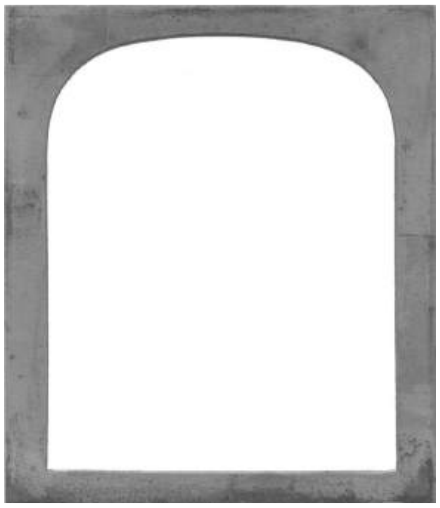
r6_gennert1

1862

r6_gennert2

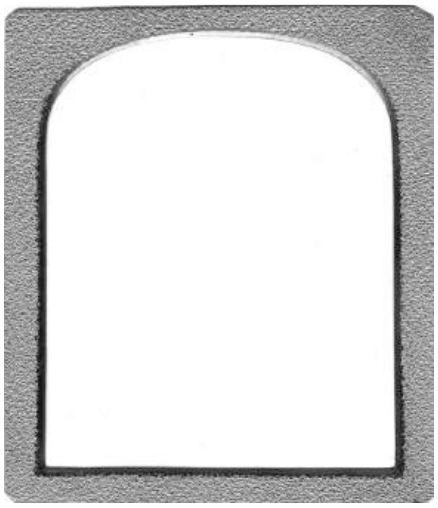
Jon Dulaney

Joseph Rose



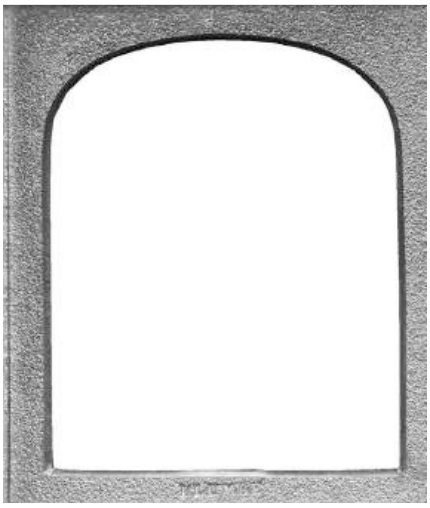
Elliptical - plain

1847-52(American) 1852-1860 (British)



Elliptical - pebbled

1846 - 1851



Elliptical - Plumbe

vintagephotosrus

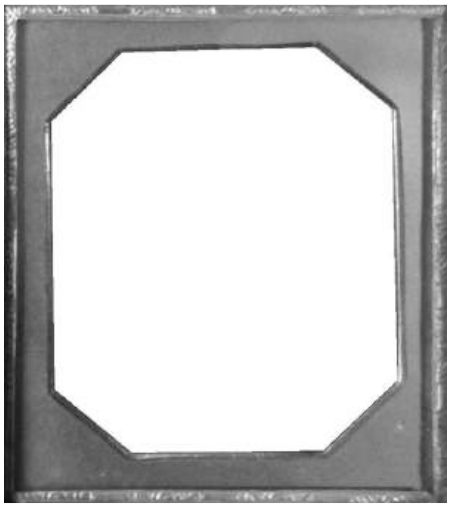
Mr. and Mrs. Eugene R. Groves

Elliptical - with tracery

1858 - 1861

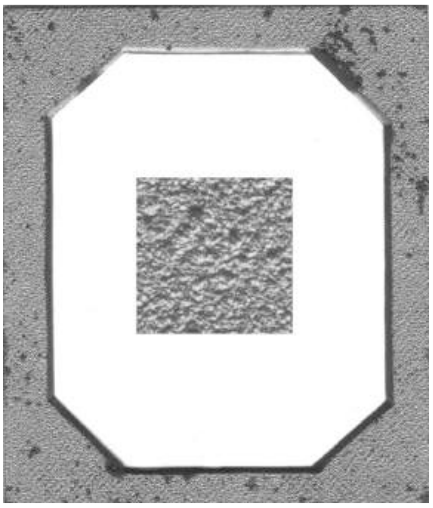
British. One of many variants

Bruce Baryla



Octagon - smooth

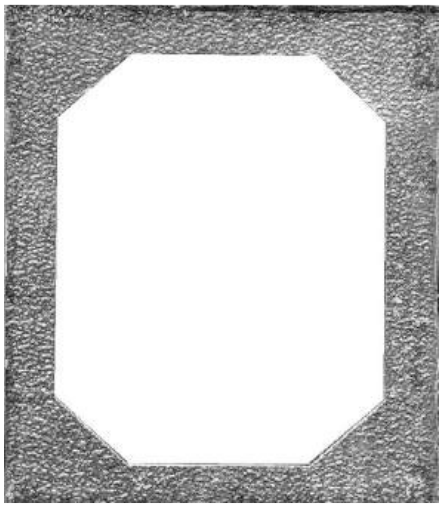
1845 - 1850



Octagon - pebbled

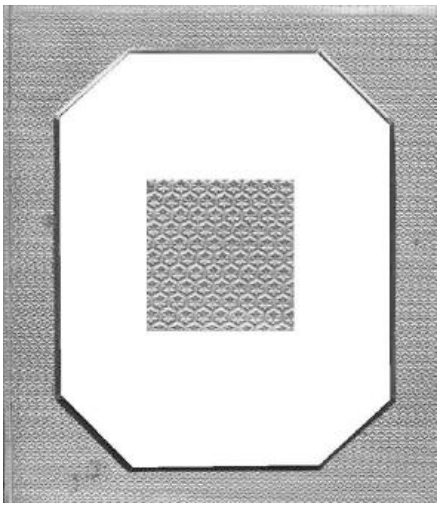
(1841) 1843 - 1855

peak years 1843 - 1852



paper mat

?



Octagon - honeycomb

1842 - 1845

octagon - acorn

~ 1843

John Plumbe

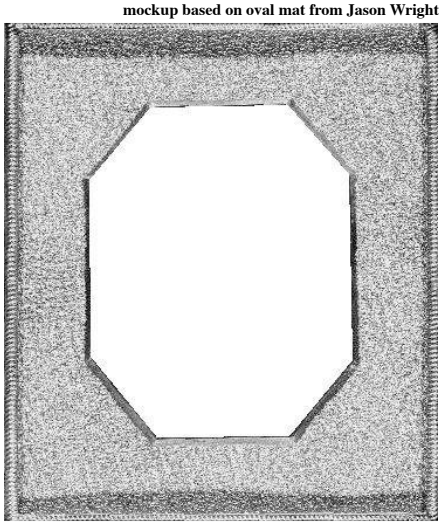
Jason Wright

mockup based on oval mat from Jason Wright

Philadelphia

1844 - 1846

Diane Smith



small octagon

1847 - 1855

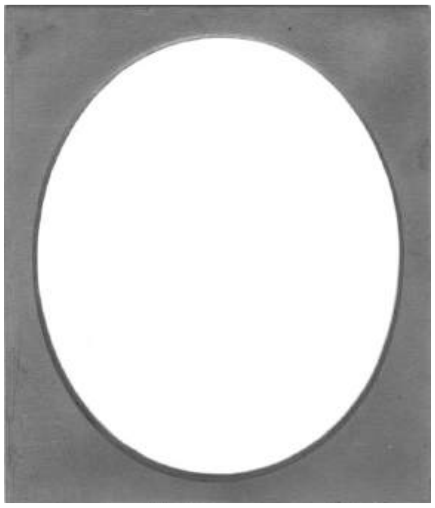
LOC

Early decorative

1842 - 1844 (1846?)

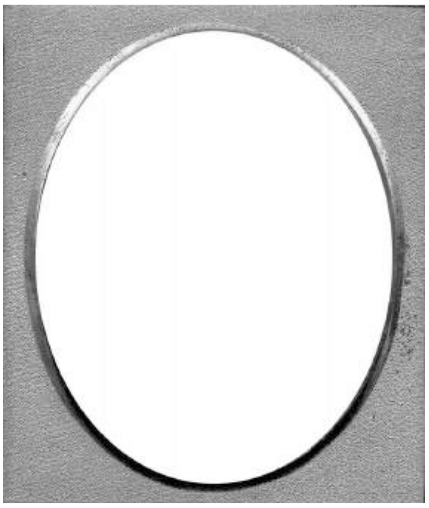
one of many similar

Jason Wright



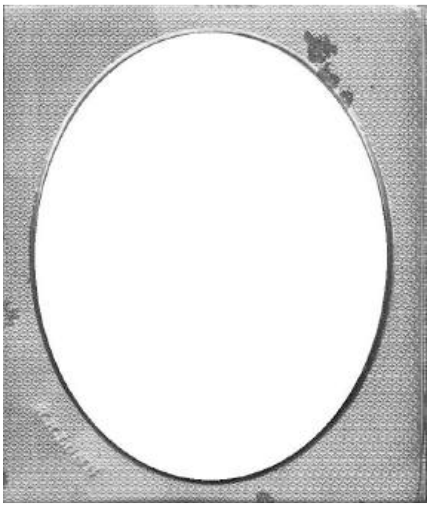
Plain - smooth

1840 - 1856 (1858)



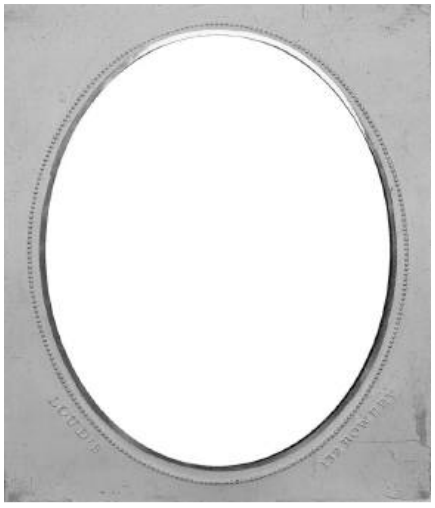
Plain - pebbled

1840 - 1853 (1855)



Plain - honeycomb

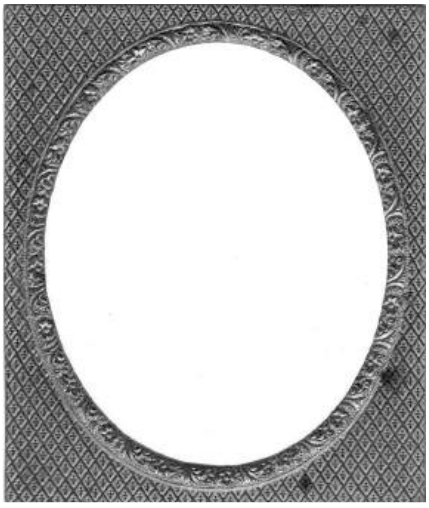
1842 - 1845



dots

1854 - 1859 (1865)

John Rochon

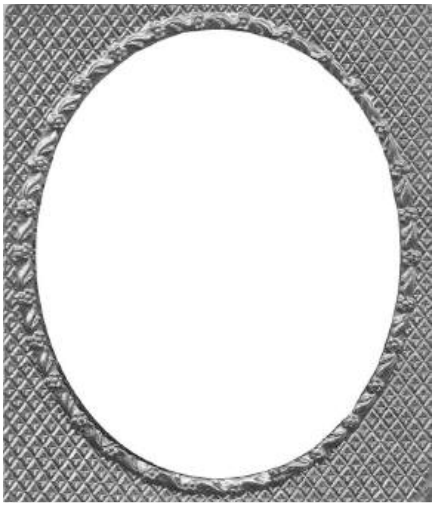


Hayden

1855 - 59

Patented October 1855 - heavy brass

Jason Wright



Faux Hayden

1870s & 1880s

British - lightweight

John Rochon

Plumbe Acorn

~ 1843

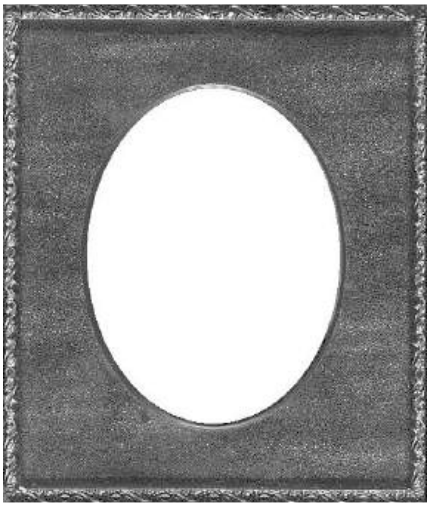
John Plumbe

vintagephotosrus

Early decorative card

1845 ?

theprimitivefold



Small oval

1847 - 1855

Jason Wright

LOC

o6_TinyRoses2

~1858

also variant in 4th

o_CornerGrapes

1854 - 1856

also in 9th

Illustration needed

o6_BergFig31

?

Olivia Goldfine

o6_TinyRoses1

1854

Illustration needed

garland

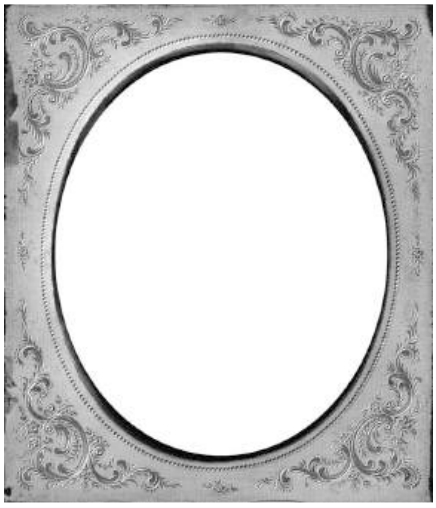
~~1855

Greg French

o_Grapevine

(1853) 1855 (1857)

John Rochon

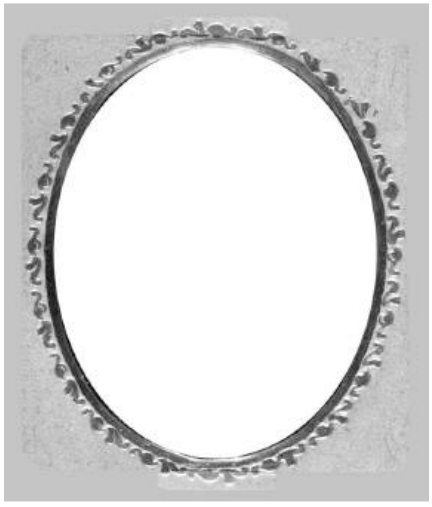


o6_foil

1852-56

other foils 1853-55

LOC



o6_LavaLamp

1851-57

LOC

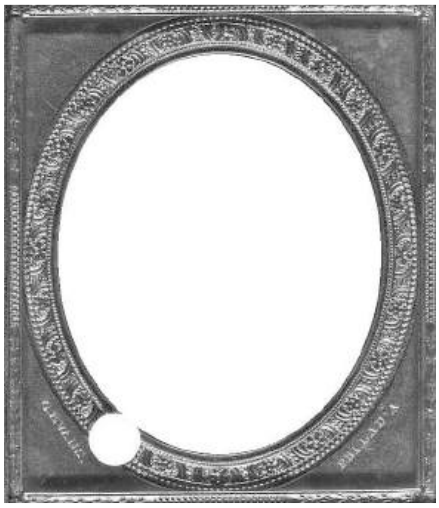
Racetrack simple

1851 - 1861

Illustration needed

Racetrack wheat

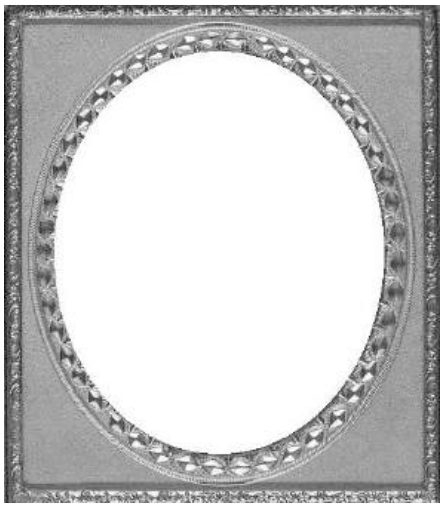
1855 - 1858



Racetrack celtic

~1855

LOC



Racetrack jewelled

1854

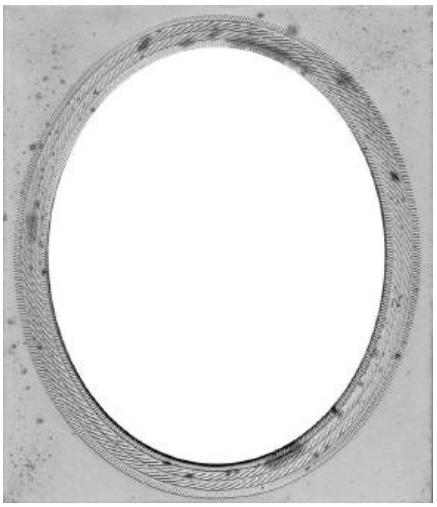
also a 4th

LOC

Illustration needed

Racetrack - rustic

1855 ~

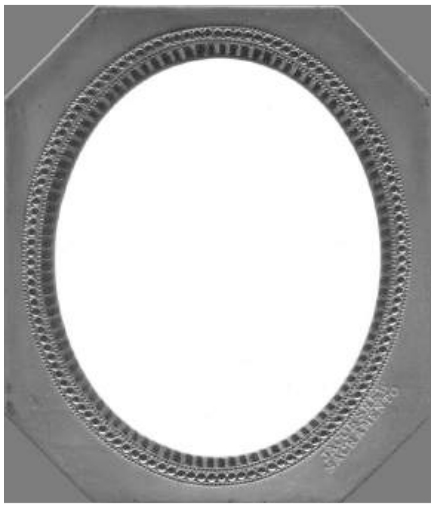


Racetrack braided

1851-59 (1861)

many variants

John Rochon

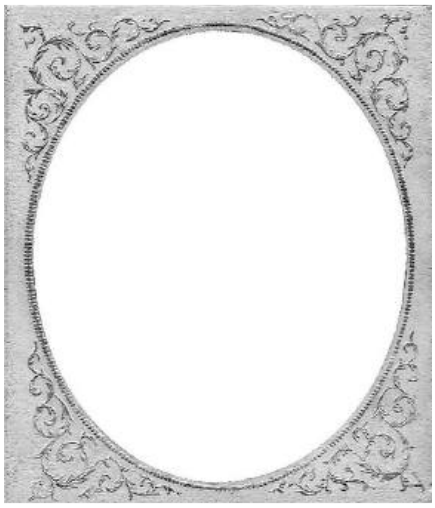


o6_jacob

~~1855

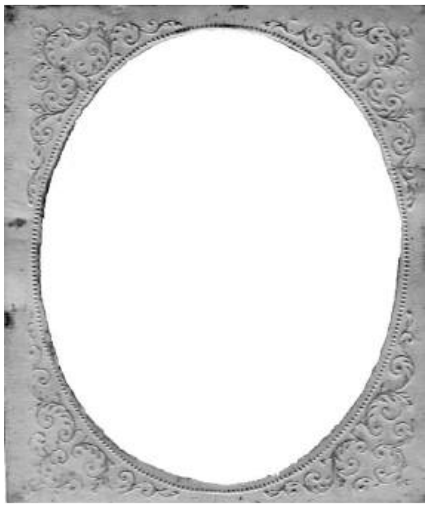
0.030” thick

Steve



o6_tracery1

1858-59



o6_tracery2

~1860 ?

Ellen Sheffield Wilds

o6_WilsonsDoilly

~1854 ?

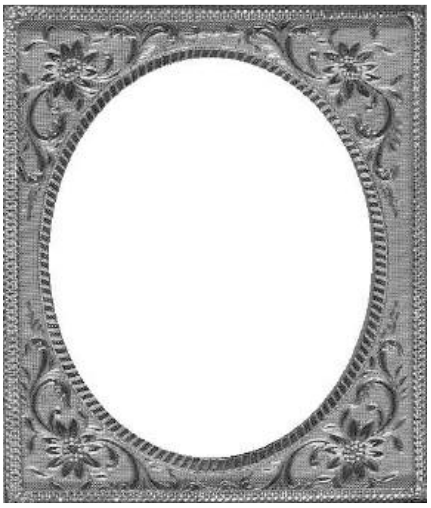
0.043” thick

Illustration needed

o6_sawtooth1

?

see HBH_sawtooth2



o6_BlackEyedSusan

1863

LOC

o6_strawberries1

1861 ??

Illustration needed

o6_strawberries2

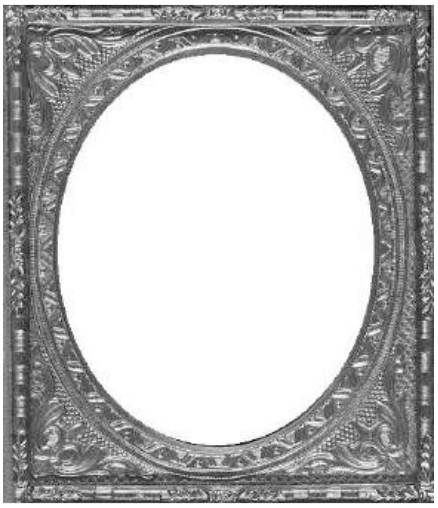
1864

o6_CirclesPassageway

1858 - 1862

no maker

Klein archives



o6_trident

~ 1862

LOC

o6_raincloud

1859-62

thin, no maker

Cliff

o6_fourdiamonds

1859 - 62

thin, no maker

Cooke&E_B

~ 1859-61 ?

precursor to D&E_10

John Rochon

D&E 10 (square corners)

1860-61

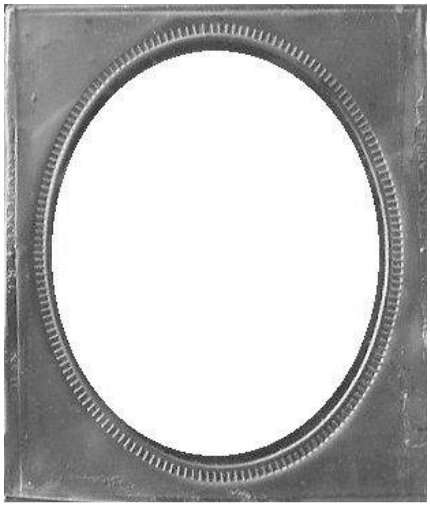
sqaure corner variant presumably earlier

Ellen Sheffield Wilds

D&E 10 (rounded corners)

1860 - 1861

rounded corner variant presumably later



D&E 11

~~1860

also in 9th

Debbie Wbbster

D&E 33

1861 - 1864

Also attributed to 23, 28, and 38.

Candace Brown

D&E 60

1863 - 1866

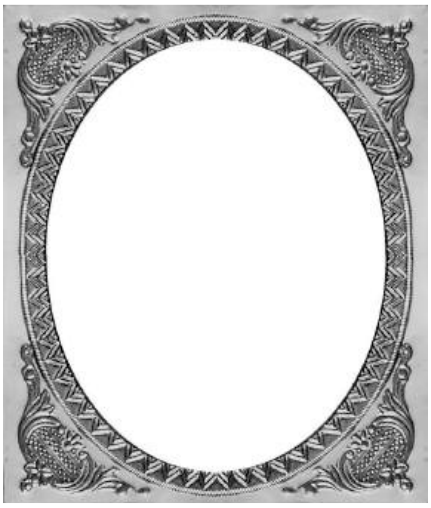
Candace Brown

o6_gennert

early 1860s

Gennert Bros. (not all thus marked)

LOC & Mike Werner



HBH_sawtooth2 6th

1857 - 1859 (1862)

also in 9th

Steve Kimberly

HBH_EPluribusUnum

early 1860s

Patented 25 June 1861 by Hayden

LOC

Illustration needed

HBH 12

early 1860s

Illustration needed

HBH_a

~ 1858 ?

no number on mat

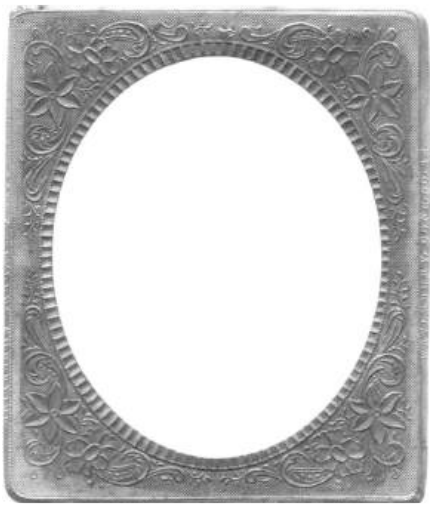
HBH 24 or 34

~ 1861 ?

HBH 42

(1860) 1862-63 (1867)

4th, 6th, & 9th. 6th plate is HBH 42



HBH 43

1864 - 1867

Scovill_heavy1

1861

weight uncertain

Illustration needed

Scovill 820a

~ 1862 ?

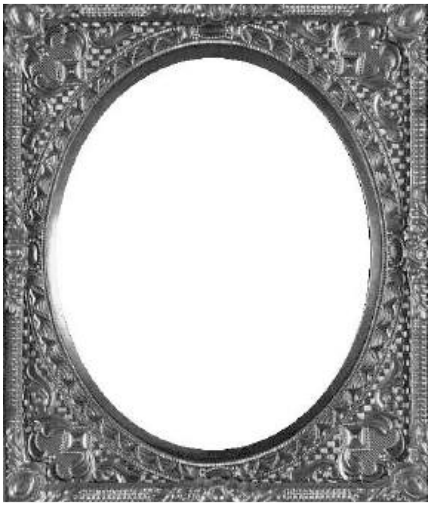
one of two 820's ?

Scovill 820b

?

one of two 820's ?

Jickie King



Scovill 823

~ 1865 ??

Scovill 830

1862

Cliff

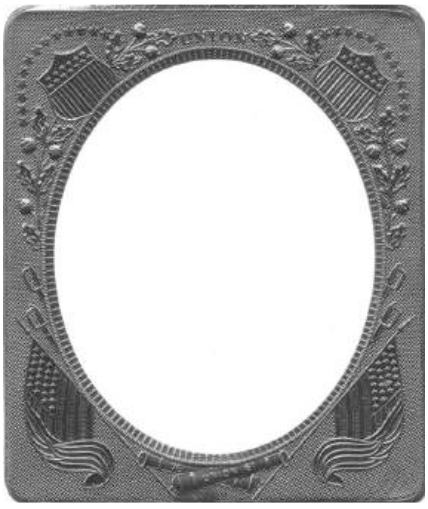
Scovill 834

1864 ??

LOC

Scovill 839

1863-67



(Scovill) 76Union61

~ 1863

Probably #828 or 838

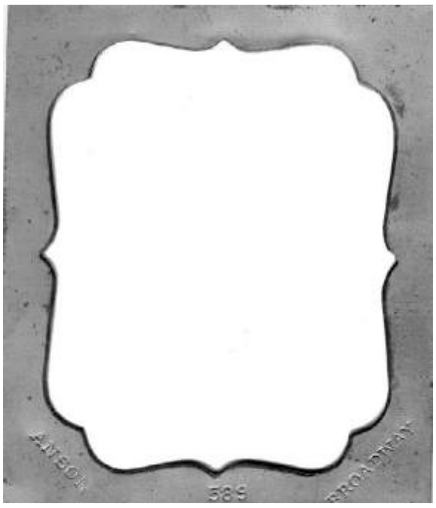
Ellen Sheffield Wilds

(Scovill) Constitution&Union6

early 1860s

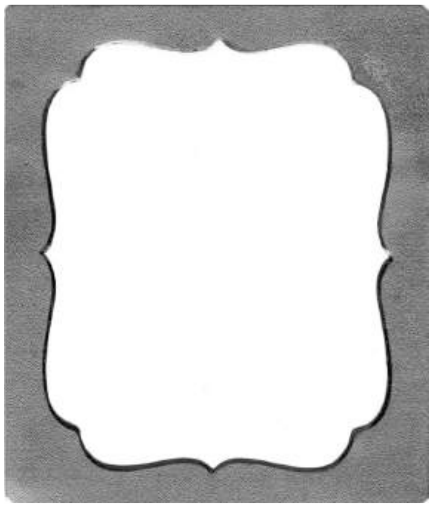
Scovill #824

Ellen Sheffield Wilds



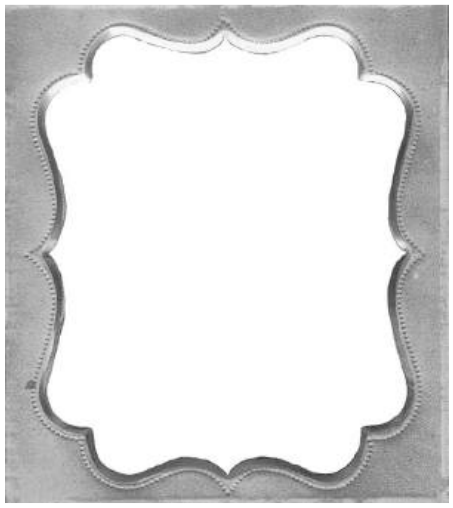
plain

1850 - 1859



pebbled

1850 - 1854



dots

1854 - 1859 (65)

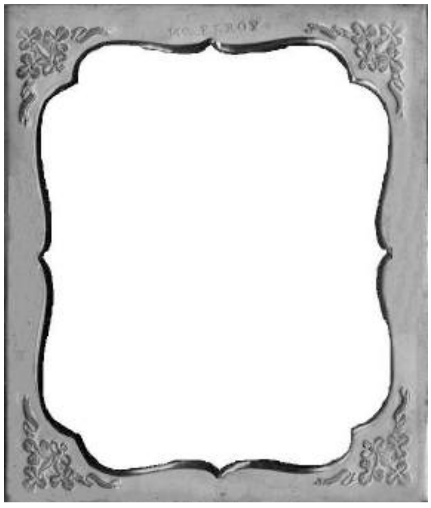
Candace Brown

n_sparseFeathers 6th

~ 1851

Exists in 4th & 6th

vintagephotosrus



n6_parseCorners

1852 ??

mockup from SparseWhirlpool 6th

John Rochon

n6_sparseA

1853/54

T S Brown

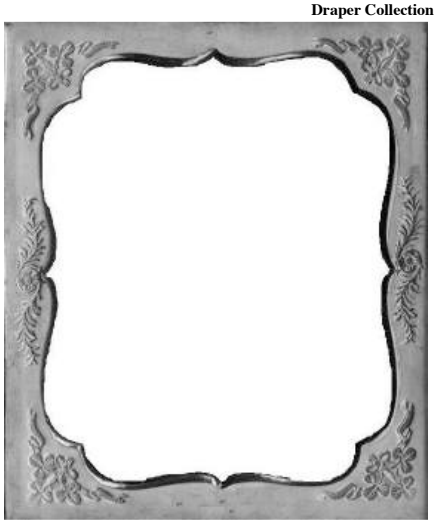
Illustration needed

n_Auguste

1853 ??

Similar to NQ_Auguste

Draper Collection



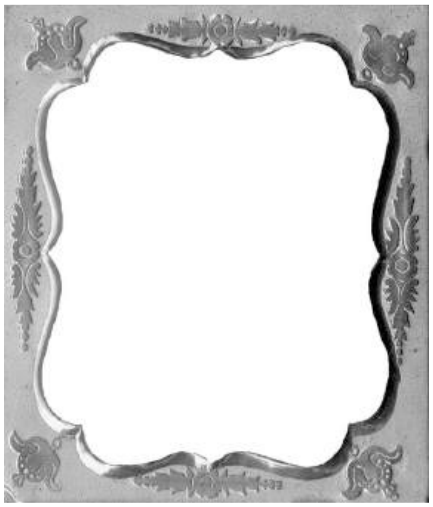
n_sparseWhirlpool 6th

~ 1854

4th & 6th

Draper Collection

LOC

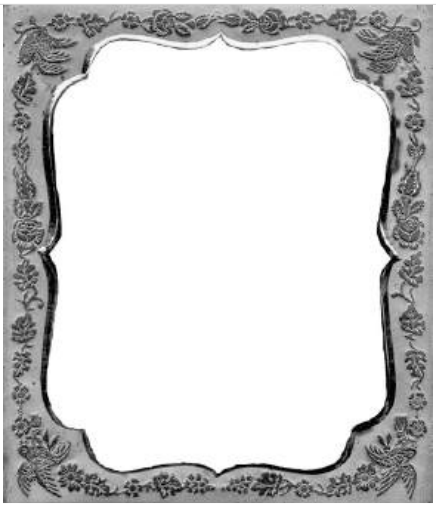


n_sparseB 6th

1852-53

4th & 6th

John Rochon

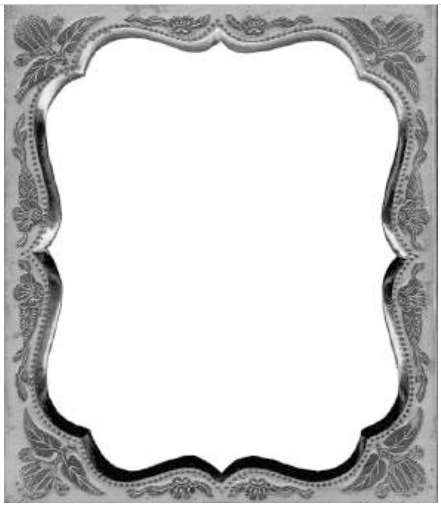


n6_birds&roses

1853 ??

0.027” thick

John Rochon



n6_thistle

?

0.039” thick

John Rochon

n6_CornerRoses

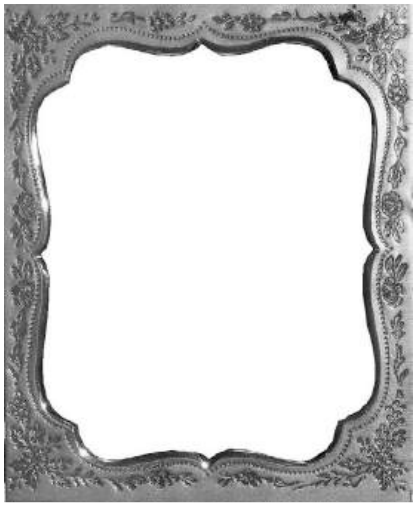
~1855 ?

Ellen Sheffield Wilds

n6_TinyRoses

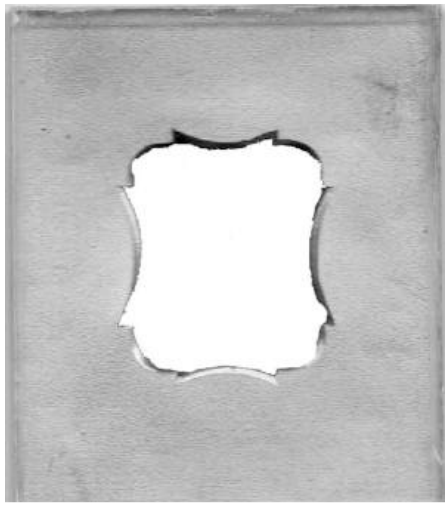
1854 - 1855

also oval 6th



n6_vines

~ 1855 ??

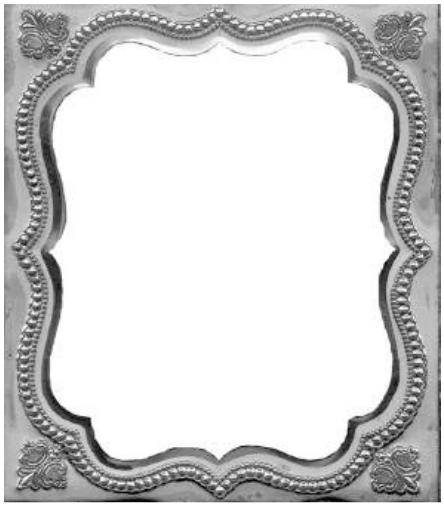


Small Nonpareil

1849 - 1855

Arthur Fraumeni

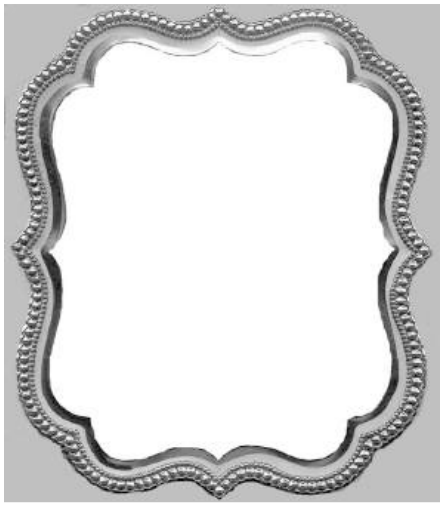
Ellen Sheffield Wilds



n6_FleurDeLis

1856 - 1857

John Rochon



n6_doubleborder

~ 1855 ?

anonymous

n6_heavy1

1858 ??

heavy?

vintagephotosrus

n6_waffleiron

1860 - 1861

thin, no name

n6_twodiamonds

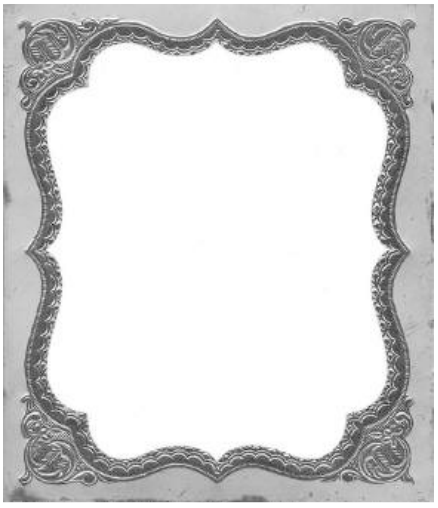
~ 1862

thin mat, no nme

n6_floatingpaisley

1861

LOC

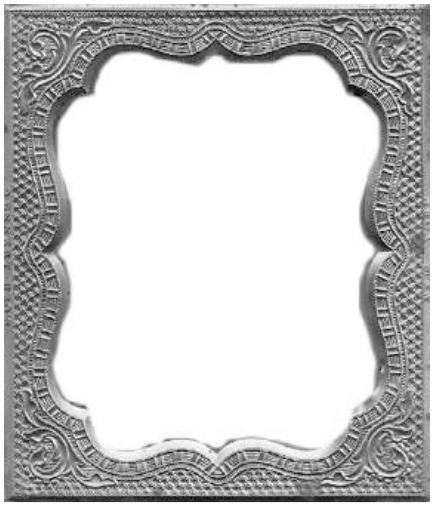


n6_thanksjohn

~1862 ? (late for a heavy mat)

no maker, 0.033". Saw one with cutting patent

John Rochon



n6_gennert

1865 (late for this firm?)

Ellen Sheffield Wilds

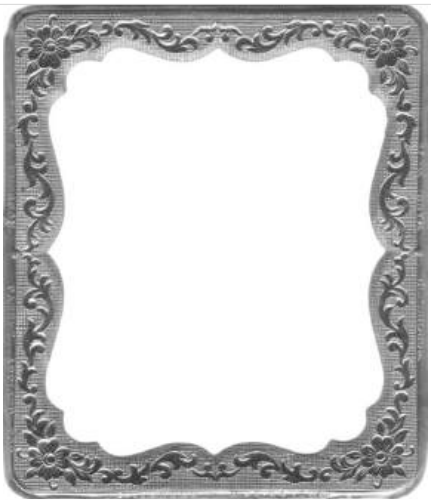
Cooke&E_A

1859 - 1861

D&E 29

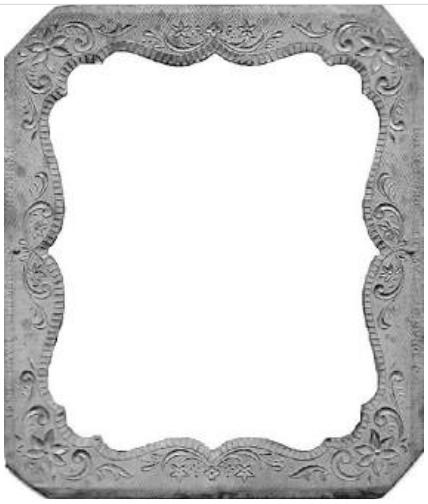
~ 1861 ?

vintagephotosrus



Sanspareil D&E 40

1862



Sanspareil D&E 64

1864 - 1866

Illustration needed

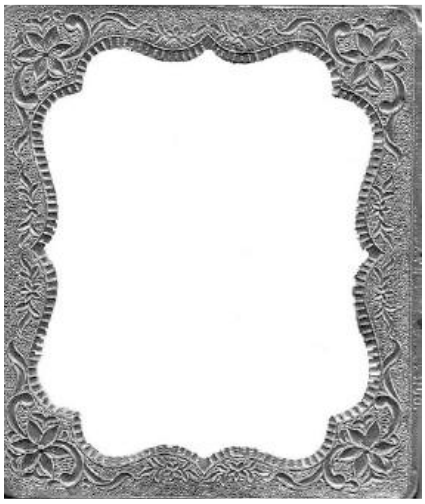
Sanspareil D&E_85

1865 - 67

Brenda Kobel

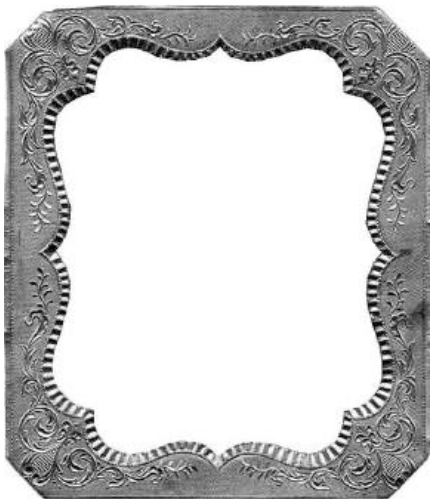
HBH 15

~ 1861 ?



HBH 33

1861 - 1865



HBH 54

1862 ??

Ellen Sheffield Wilds

Scovill 831

~ 1863

Illustration needed

Scovill 82x

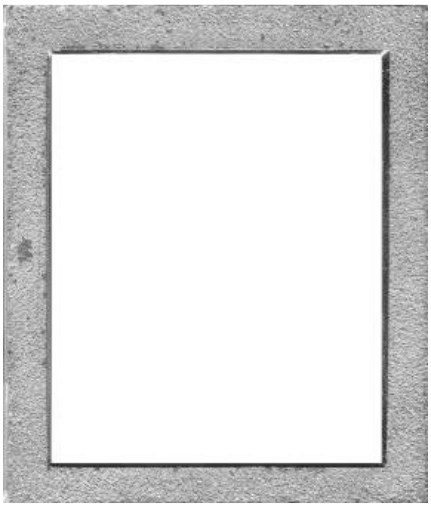
1867 ??

iugabullgogi

Scovill 835

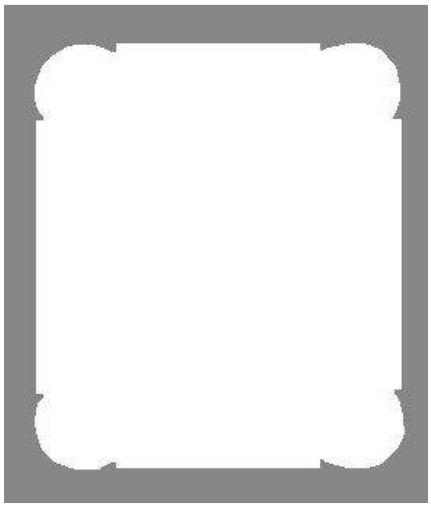
~ 1865

Don Minnerly



Rectangle

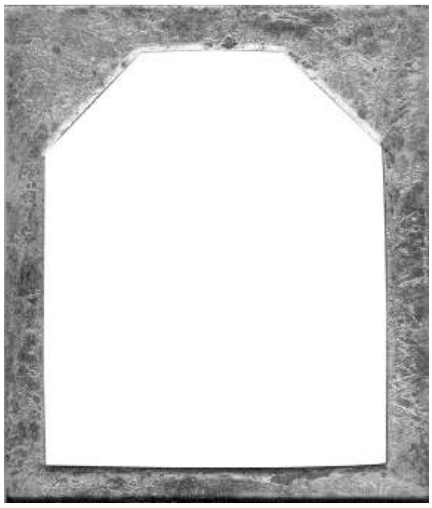
1840 - 1845 (1848)



Fitz

~ 1841

found on daguerreotypes by Henry Fitz Jr. of c. 1841

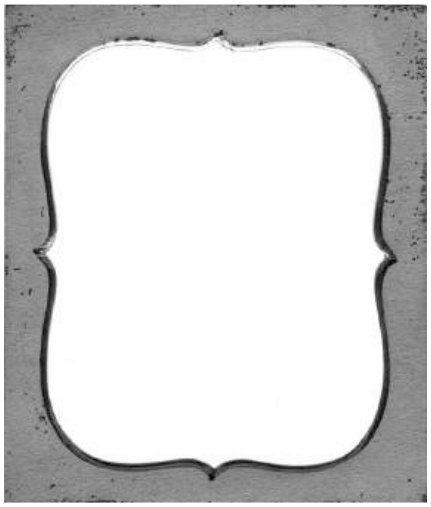


Half Octagon

early 1840s

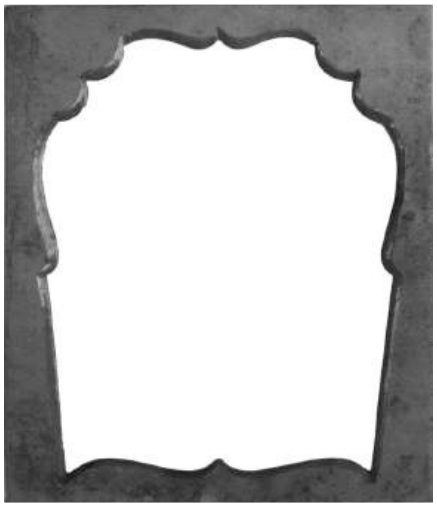
this example in tin

Jason Wright



Cusped

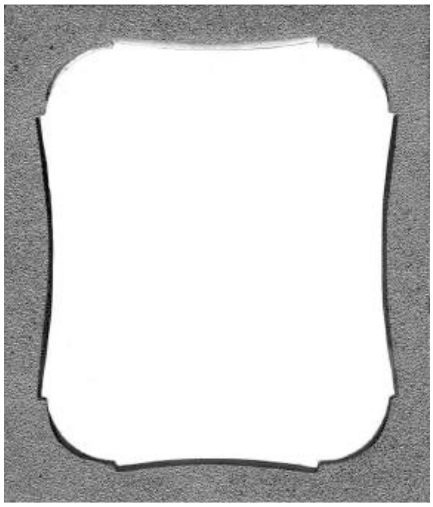
1848 - 1854



Flexuous

~~ 1850 ?

Jason Wright



Cartouche

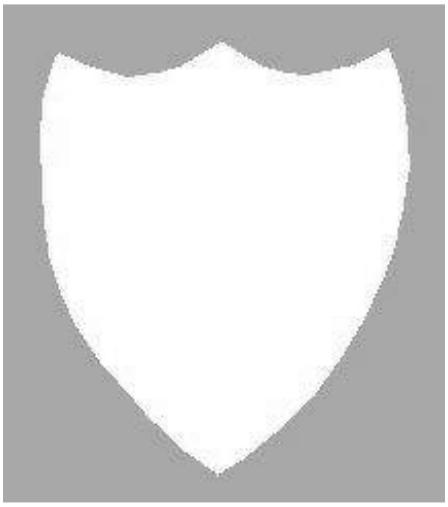
1848 - 1851 (54)

vintagephotosrus

Cartouche - sparse

~ 1851

Bev Shaw

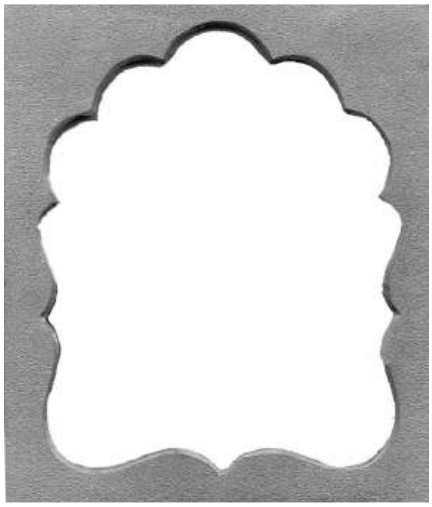


Shield

~ 1851 ?

AKA Pyramidal (when upside down)

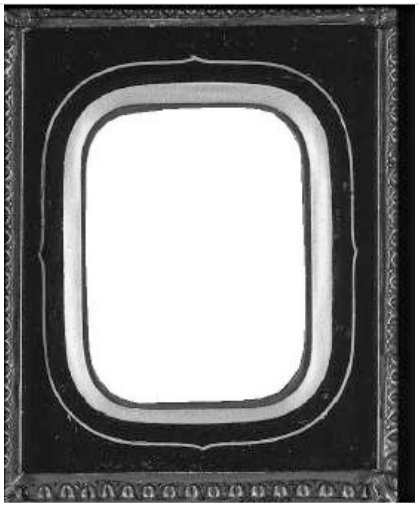
vintagephotosrus



Alhambra (AKA ornate elliptical)

~ 1852

Ellen Sheffield Wilds



Passe-partout

(1846) 1850 - 58

Mostly British or Continental European

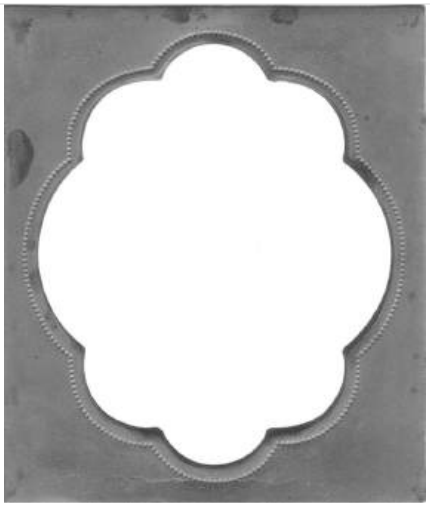
LOC

Scalloped_a

?

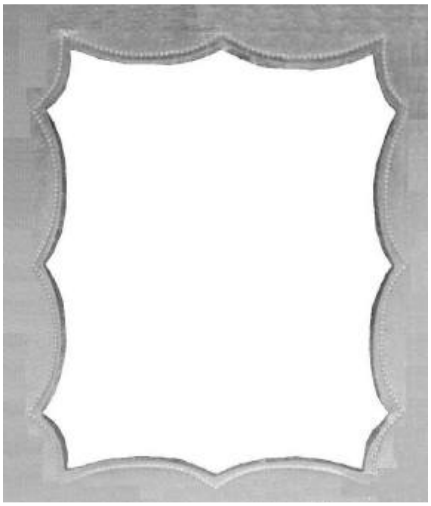
many varieties

LOC



scalloped - dots

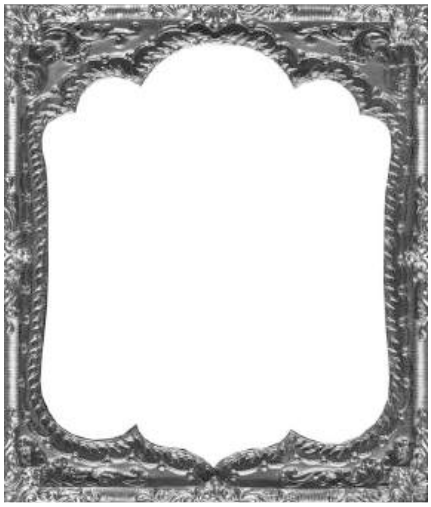
~ 1857



swag

~ 1857 ??

andycaroljoe

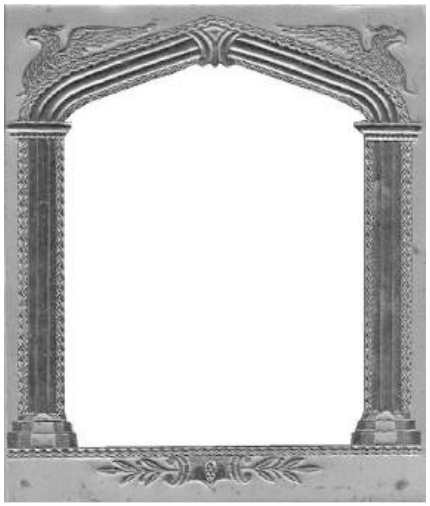


Orotund

~~1860 ?

verso: “Scovill Mfg. Co.”. Also a ninth variant

LOC



Proscenium - Griffins

~ 1859 / 1860

many different designs

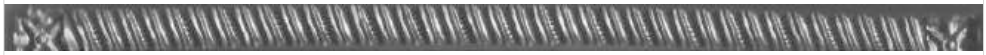
Ellen Sheffield Wilds

TABLE B: PRESERVERS

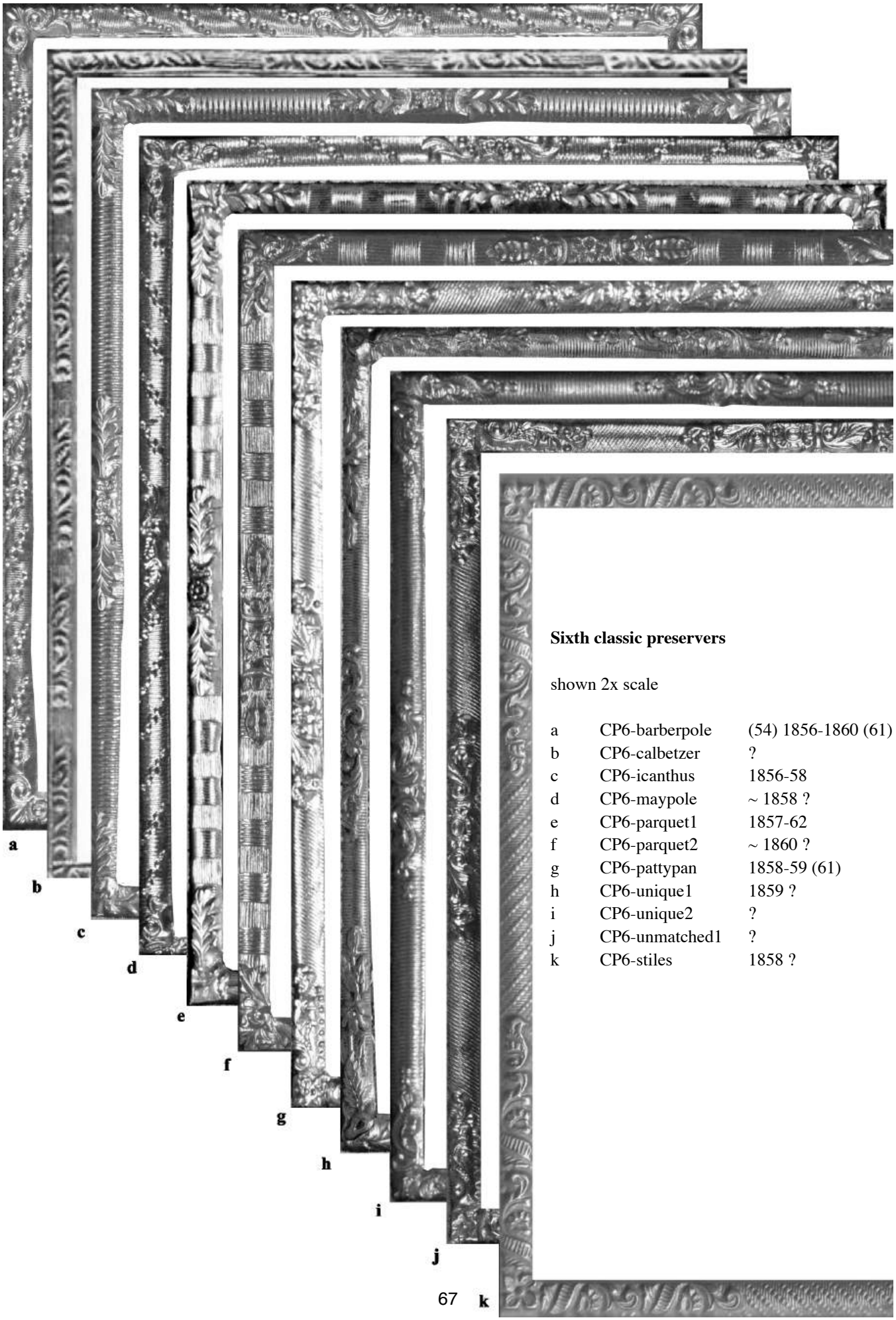
This beta version of *Fixed in Time* illustrates only sixth plate preservers.

Standard preservers

Illustrations are of tops of sixth plates - 2.75" wide, shown twice actual size

SP-ropeNarrow		(1846) 1847-50
SP-ropeMirrored		1850 / 51
SP-ropeNWSE		1848 - 53
SP-bunting		1850 - 55
SP-sacramento		~ 1852 ?
SP-ropeSWNE		1848 - 52
SP-horseshoes		1851 - 53
SP-hammered		1852 - 53
SP-braided1		(1851) 1853 -55
SP-ropeWide		1852 - 54
SP-ivyChain		1852 - 55
SP-scarab		1852 - 56
SP-1854ish		~ 1854 ?
SP-maples		1852-55 (57)
SP-squiggleOf55		1854 - 55
SP-canvas		(51) 1855 - 61
SP-braided2		1854 - 56

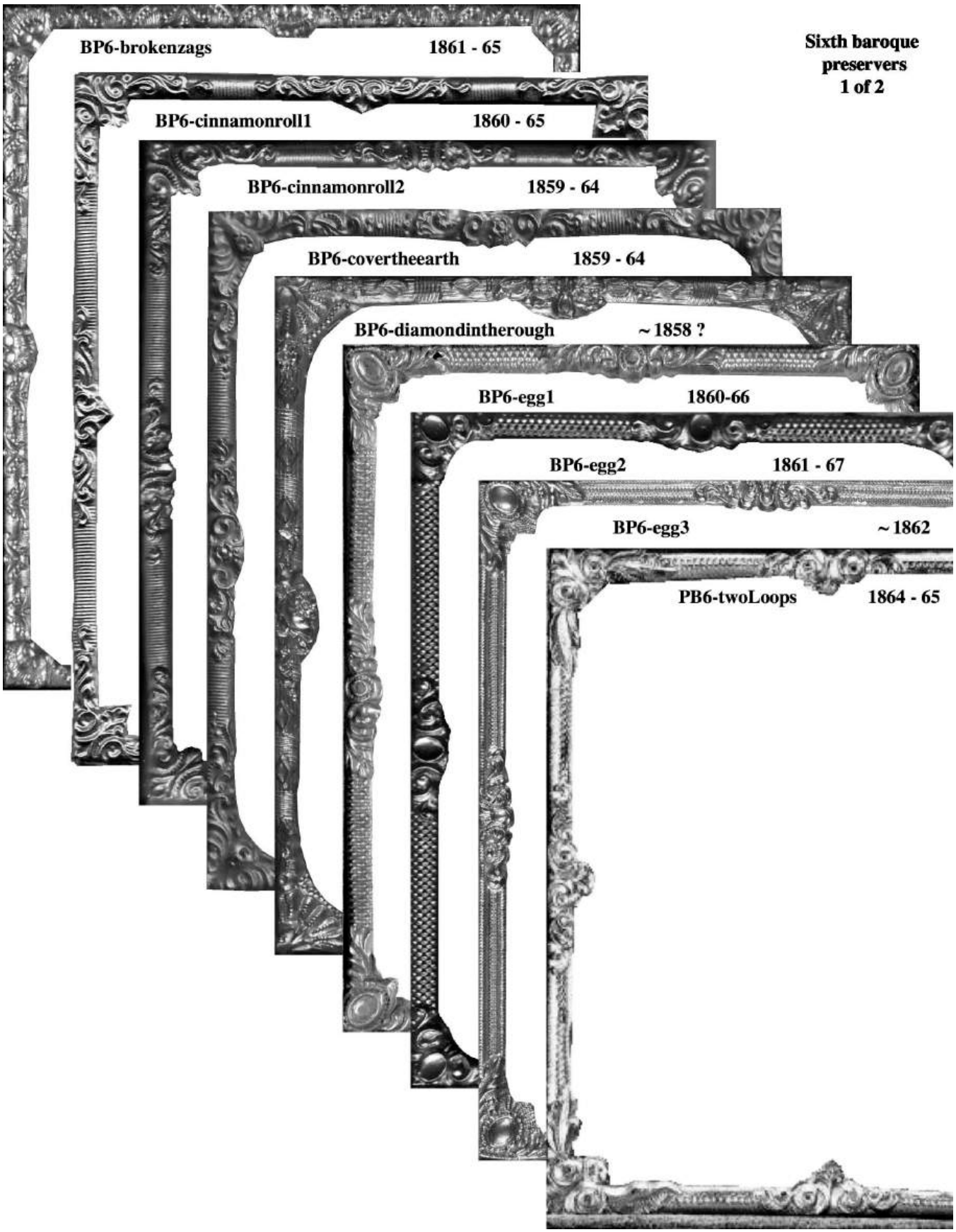
SP-crocodileJaws		~ 1856
SP-leafRose		1855 - 59
SP-braided4		1856 ??
SP-mixedGarden		1856 - 57
SP-floralBracelet		1856-58
SP6-wreath		1850 - 52
SP6-dotdotdiamond		1852 - 53
SP6-streamer		1852 / 53
SP6-minnerly		~ 1853
SP6-dag49		~ 1853 ?
SP6-evington		~ 1853 ?
SP6-wyman		1853
SP6-circa1854		1853 - 55
SP6-dag29		1853 - 55
SP6-surfsup2		1854
SP6-canyons		1854 - 55
SP6-surfsup1		~ 1855 ?
SP6-botticelli		1855 - 56
SP6-tripletflowers		~ 1856
SP6-unique1		~ 1858 ?
SP6-diamondintherough		1858 ??



Sixth classic preservers

shown 2x scale

a	CP6-barberpole	(54) 1856-1860 (61)
b	CP6-calbetzer	?
c	CP6-icanthus	1856-58
d	CP6-maypole	~ 1858 ?
e	CP6-parquet1	1857-62
f	CP6-parquet2	~ 1860 ?
g	CP6-pattypan	1858-59 (61)
h	CP6-unique1	1859 ?
i	CP6-unique2	?
j	CP6-unmatched1	?
k	CP6-stiles	1858 ?


Sixth baroque preservers 1 of 2
BP6-brokenzags 1861 - 65
BP6-cinnamonroll1 1860 - 65
BP6-cinnamonroll2 1859 - 64
BP6-covertheearth 1859 - 64
BP6-diamondintherough ~1858 ?
BP6-egg1 1860-66
BP6-egg2 1861 - 67
BP6-egg3 ~1862
PB6-twoLoops 1864 - 65

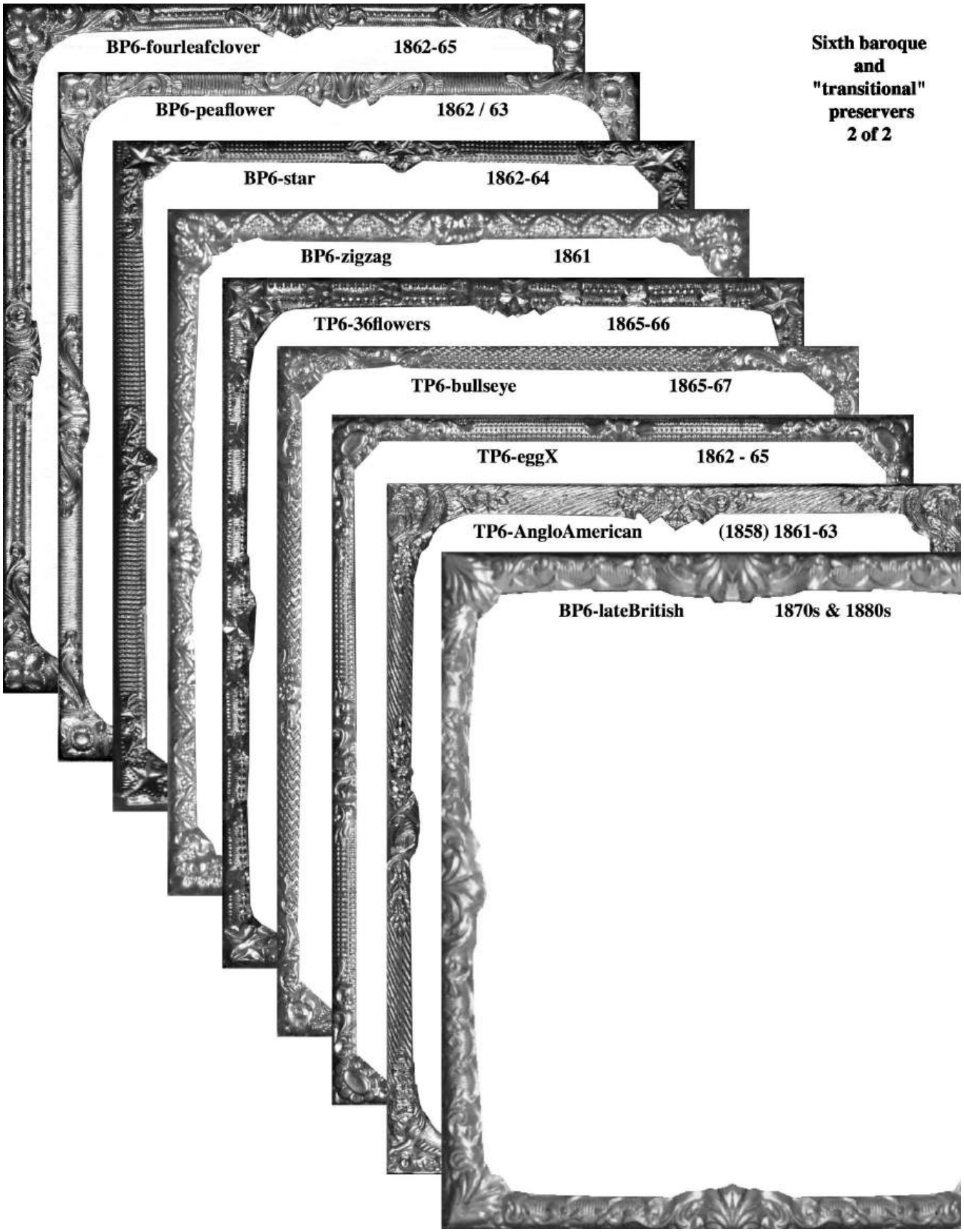

Sixth baroque
and
"transitional"
preservers
2 of 2
BP6-fourleafclover 1862-65
BP6-peaflower 1862 / 63
BP6-star 1862-64
BP6-zigzag 1861
TP6-36flowers 1865-66
TP6-bullseye 1865-67
TP6-eggX 1862 - 65
TP6-AngloAmerican (1858) 1861-63
BP6-lateBritish 1870s & 1880s

TABLE C: CASES

Cases are arranged by size and motif. Each design is given a date or a range of years of when it was produced. For union cases, novelty cases, or book-style cases, see Alternative cases.

This beta version of *Fixed in Time* illustrates only sixth plate cases.

Within each size, the cases are arranged according to the following motifs:

- Human figures, man-made objects, and scenes
- Birds & beasts
- Urns and vases
- Flowers and foliage (without vases)
- Geometric - circle motif
- Geometric - cross motif
- Geometric - linear motif
- Geometric - oval motif
- Geometric - rectangle motif
- Geometric - scalloped motif
- Geometric - miscellaneous

Key to my dates:

1848-52	1848 to 1852, reliably dated
1850	1850 only, reliably dated
~1850	1850 ± 1 year, probably
~1850?	Date uncertain
(1846?-) 1848-52 (-54?)	1848 to 1852 reliable, possibly extending 1846 to 1854

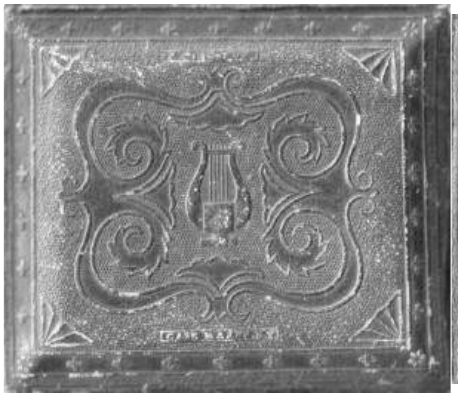
This is not the first catalog of daguerreotype cases. The ur-catalog appears to be Katherine Morrison McClinton's *Handbook of Popular Antiques* from 1946, which listed 110 union cases. Floyd and Marion Rinhart published *American Miniature Case Art* in 1969, illustrating 229 leather and union cases. Clifford Krainik, in 1988, published *Union Cases: A Collector's Guide to the Art of America's First Plastics* with 773 union cases, but did not include leather cases. More recently, Paul Berg has released his second edition of *Nineteenth Century Photographic Cases and Wall Frames*, illustrating more than 2000 cases and frames, mostly union.

Each of these books was more exhaustive than the previous, and each introduced a new and incompatible numbering scheme. To avoid confusion with Rinhart, Krainik, or Berg case numbers, I have decided not to introduce a fourth numbering scheme, but instead give each case a short unique name. When possible, I have adopted names from Rinhart or Berg, generally choosing the shorter one. For the many geometric designs, I have resorted to systematic but arbitrary names. For example, I have named all sixth cases with cross motifs after Civil War battles. This is appropriate as these designs cases were popular 1861-1865. Some of my names are whimsical; my goal was to make them memorable to myself in order to avoid errors. As this is a beta version of the catalog, many of the case names will change.

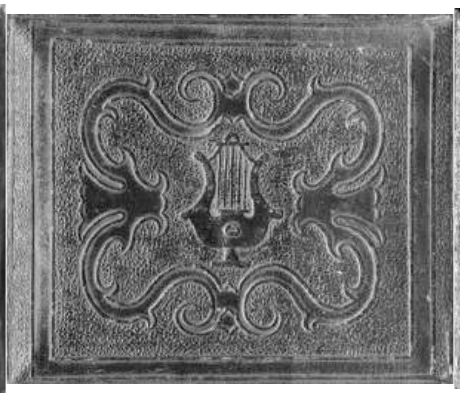
Rinhart and Berg selected interesting cases for their catalogs. I instead show only those for which I can establish dates; these are generally the commonest cases.

Floyd and Marion Rinhart assigned estimated dates to each of the 229 cases in their catalog, which usually agree with my findings (although for the earlier cases, they generally give dates a couple of years earlier than I do). They had the advantage of personally examining their cases. I do not have that advantage, but have a compensating advantage of access to the Internet and the ability to find 2,100 objectively dated images online. The dates I have assigned are based on the 1,000 of these that show their cases.

If a maker is assigned to a design (i.e. “By Plumbe”) that means that at least one example of this design has been found with that maker’s label inside. Case makers purchased the embossed leather designs from specialty firms; therefore similar cases may be found with a different maker’s label or with no label at all.[80] If the design is “signed”, this indicates that the designer of the embossed leather design signed their name in the leather top. These designers, with the exception of Mathew Brady (see his *Brady Lyre Motif* case) were not the case makers.

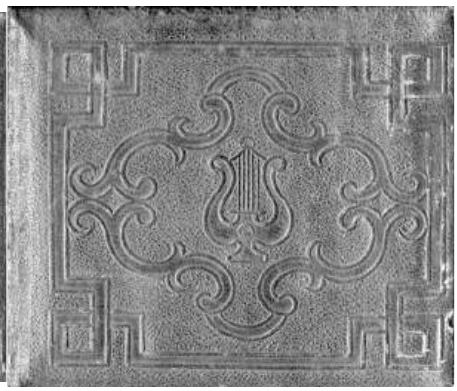


Brady Lyre Motif
1843-45
Leather, “M. B Brady”, “Case Maker N. Y.”



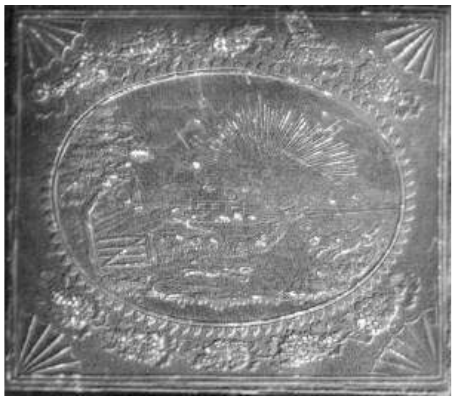
Lyre Motif A (Berg 4-44)
~ 1844
Leather

Jason Wright

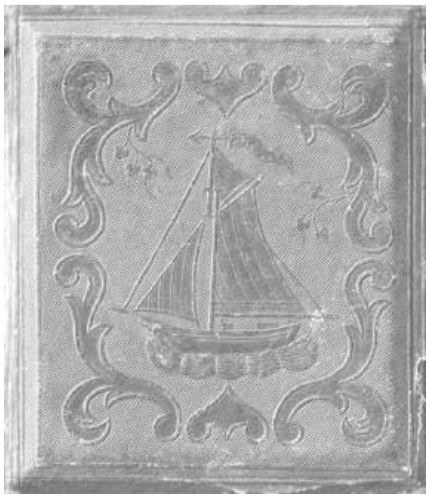


Lyre Motif B (Rinhart 172)
~ 1843 according to Rinhart
Leather. Also bordered as 2nd

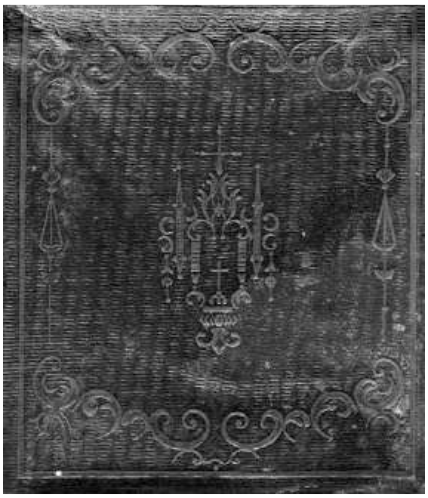
Jason Wright



Home in the Country (Berg 4-31)
~ 1846 ?
Leather. Also bordered as 4th



Sailboat (Rinhart 33, Berg 5-150 & 4-30)
~1847 according to Rinhart
Leather, signed by Pretlove in corner



Cross & Candles (Rinhart 59, Berg 5-47G)
~ 1848/49
Leather. Usually with Curved Octagon on back

Mr. and Mrs. Eugene R. Groves

Maiden with Cornucopia (Rinhart 163)

~ 1851 according to Rinhart

Leather. Also bordered as 4th

Jeff Green

Garden Scene (Rinhart 80)

~ 1852 according to Rinhart

Leather

Maartje de Nie

Wolfert's Roost (Rinhart 17, Berg 4-12)

~1853 according to Rinhart

Doug Thoma

Maiden Scattering Roses (Rinhart 120)

~ 1854 according to Rinhart

Leather

Maartje de Nie

The Arts (Rinhart 32)

~1855 according to Rinhart

Leather

Everlasting Light (Rinhart 64)

~1856 according to Rinhart

Leather

The Flag in Gold (Rinhart 66, Berg 4-22G)

~ 1862

Cardboard. 6th & 9th

Mr. and Mrs. Eugene R. Groves

Bird in Gold (Berg 5-51G)

~ 1849

Berg calls this *Graceful Bird*. Two different borders

theprimitivefold / Greg French

Water Bird & Urn (Rinhart 97)

~1850 according to Rinhart

J. D. Sills Sr.

Love Birds 6th (Rinhart 86, Berg 5-36)

~ 1850

Leather. Also in 9th

Doug Thoma

Bird among Flowers

~ 1850 ??

Birds & Flower Basket (Rinhart 92, Berg 5-32)

~1851

Leather

Doug Thoma

Peacock in Tree

1852-53

anonymous

Bird & Grapes A (Rinhart 89, Berg 5-34)

1852-54

Leather. Usually backed with SWN_d151

Ellen Sheffield Wilds

Bird & Grapes B (Berg 5-33)

1852 ?

Found with same design on front & back. Also found as 4th with border

Alan's photo

Bird & Grapevine Variant (Rinhart 90)

~ 1853 ?

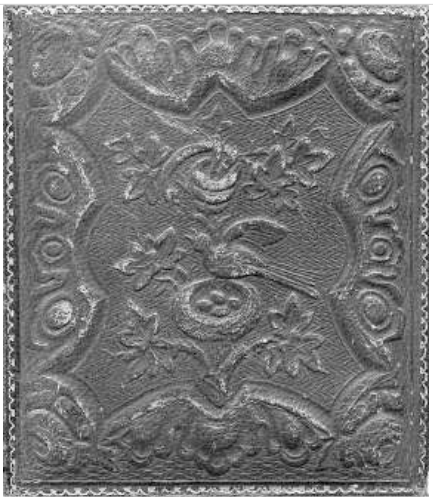
Leather

Doug Thoma

Birds & Flower Vase (Rinhart 91)

1853 ?

Leather. Rinhart dates this to c. 1856



Bird & Snake (Rinhart 96, Berg 5-35)

1853/4

Fish & Grape Motif (Rinhart 103)

~1854 according to Rinhart

Leather

Ellen Sheffield Wilds

Bird & Butterfly

~ 1854 ??

Larry Lingle

Eagle in Flight (Rinhart 69, Berg 4-25)

1855-58

Leather

The Deluge (Rinhart 98, Berg 5-31)

~1856 according to Rinhart

Leather

Elizabeth

Birds & Fountain (Rinhart 93)

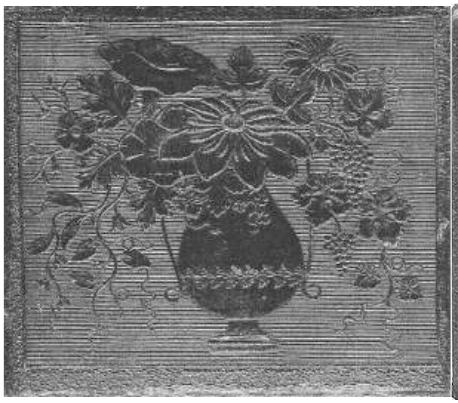
1857-59 (62)

Leather

Birds on a Ring (Rinhart 85)

~1859 according to Rinhart

Cloth



Grecian Urn 1 (Rinhart 140, Berg 5-118)

1843-48

Leather, attributed to Plumbe. Also as 4th

Rinhart: “first made in 1841”

Jason Wright

Basket of Flowers 148 (r148, b5-116)

~ 1846 ?

Leather, by John Plumbe

Jeff Green

Basket of Flowers 149 (r149, b5-104)

~1846 according to Rinhart.

Leather. By R. Jennings

Flower Cornucopia (Rinhart 144)

~1849 according to Rinhart

Leather

Romanesque Urn (Rinhart 141)

1853-54

Leather

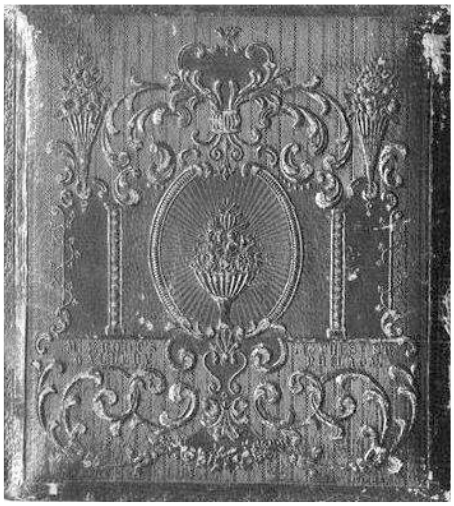
Mary Jordan

Romanesque Urn 2a

1855

two variants

Maartje de Nie



Flower Vase Motif (Rinhart 146, Berg 5-144)

~ 1856 ?

Silk, usually geometric on back.

Klein Archives

Memorial Urn

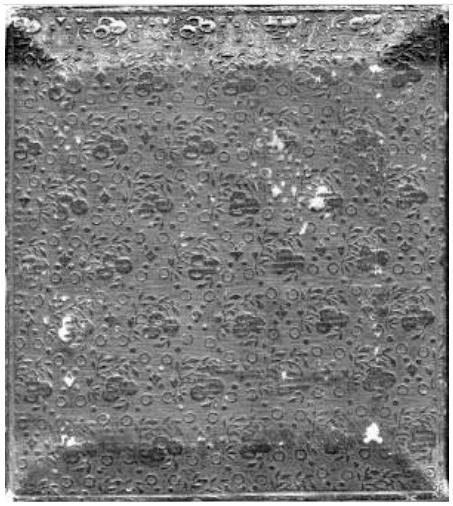
1856-57

Leather

Abram’s Vase 6th

1859-62

Mary Jordan



Cornelius Case

1840-43

Leather, Attributed to Robert Cornelius

Jason Wright

Delicate Grapes (Rinhart 100)

~1847 according to Rinhart

Leather

Jeff Green

Delicate Roses Crossed

~1846 ?

Leather

Ellen Sheffield Wilds

Two Delicate Roses 46 (Rinhart 123 mirrored)

1846-49

Leather. Often found in mirror image

attributed to Shew

Two Delicate Roses 56

? late 1840s

Leather

Two Delicate Roses Submerged (Berg 5-79)

~1848 ?

Leather, case by William Shew

Four Delicate Roses 45 (Rinhart 124)

1849-51

Leather. Also bordered as 4th

by Plumbe, Shew or Studley & Gordon

Four Delicate Roses 47 (r125, b5-112)

1847 - 1849

ıther. Often found in mirror image. Also bordered as

Maartje de Nie

Four Delicate Roses Framed

1850 ?

Leather

Tulip & Diamond (Rinhart 116, Berg 5-63)

~1849 according to Rinhart

Leather, signed by Pretlove in corner

Mr. and Mrs. Eugene R. Groves

Mixed Garden Flowers (r133, b5-66)

~ 1849

Signed by Pretlove in corner

Mixed Flowers 138 (Rinhart 138)

~ 1849

Berg & Rinhart have mirror image of this

Doug Thoma

Odd Couple front

~ 1850

front, paired with OddCouple back (geometric)

Greg French

Spray of Roses 6th (r131, b5-69)

1850-52

ather, signed by Prelove in corner. Also bordered as 4th

Acanthus Leaves

1850-55

Klein archives

Bouquet of Flowers 134 back

1851

always found on back of Rinhart 134 ?

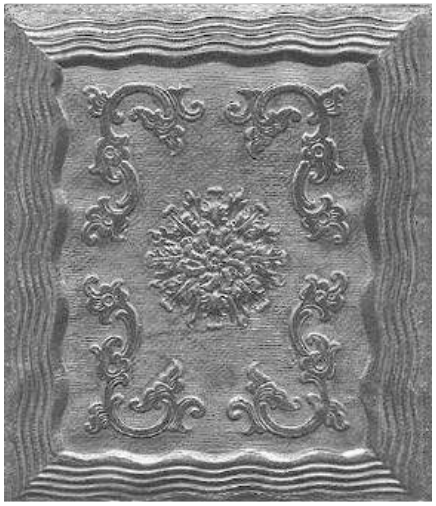
Ellen Sheffield Wilds

Bouquet of Flowers 134 (r134, b5-93)

1851

Leather

Ellen Sheffield Wilds



Dandelion (Rinhart 118)

~ 1852 ?

Leather

Jeff Green

Lily & Rose (Rinhart 114)

1851-56 (58)

Leather

Ellen Sheffield Wilds

Daisies

1852 - 55 ?

Leather

Jeremy Bleecher

Morning Glory (Rinhart 117)

~1851 according to Rinhart

Leather

Klein Archives

Two Lilies (Rinhart 112, Berg 5-133)

1852-54

Leather, case by Myron Shew

Ellen Sheffield Wilds

Two Lilies Variant (Rinhart 113)

~1854 according to Rinhart

Leather, probably E. Anthony & Co.

Ellen Sheffield Wilds

Mixed Flowers 137 (~Rinhart 137)

~1853 ?

Paper, several variants

Maartje de Nie

Medallion of three Roses (Rinhart 128)

~ 1853 ?

Leather

Ellen Sheffield Wilds

Grape Medallion (Rinhart 102)

~1853 ?

Leather

J.D. O'Connor Collections

Flower Medallion (Rinhart 135)

~ 1853-54

Leather

Ellen Sheffield Wilds

Lizzie's Flowers

1858/59

Sebastian Sanzotta

Mixed Flowers 535

~ 1853

Mirror image of this is Berg 5-35

ahenzel

Hanging Berries

1853-55

Leather

Maartje de Nie

Romanesque Rose

1853 ?

Leather, outer design matches *Romanesque Urn*

anonymous

Romanesque Bouquet

1856-59

Leather, outer design matches *Romanesque Urn*

Spray of Roses Variant (Rinhart 127)

~1857 according to Rinhart, I've found one dated '5

Leather

shortroundbooks

Rose Cameo (Rinhart 129)

~ 1858 according to Rinhart

Paper-mache

Scalloped Tea Rose

1858

Doug Thoma

Thistle Motif (Rinhart 119)

1857 - 59 (62)

Leather

Ellen Sheffield Wilds

Circle Motif (Rinhart 193)

~1842

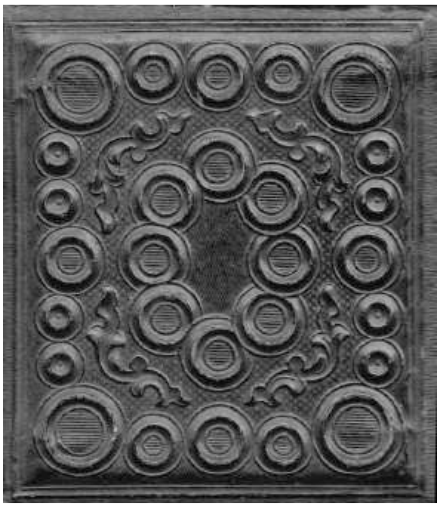
Jason Wright

Camwheel Medallion

~1853 ?

date based on other *medallion* designs

shortroundbooks



Amulets (Rinhart 191)

~1861 according to Rinhart

Cardboard

Ellen Sheffield Wilds

Tangent Circle 195 (Rinhart 195)

1855 - 1858

Leather

Jerilyn Marshall

Tangent Circle 6a

~ 1862 ?

Ornamental Circle Theme (Rinhart 196)

1856/57

Cloth. Similar design (below) in paper from 1860s?

Lori

Tangent Circle 6b

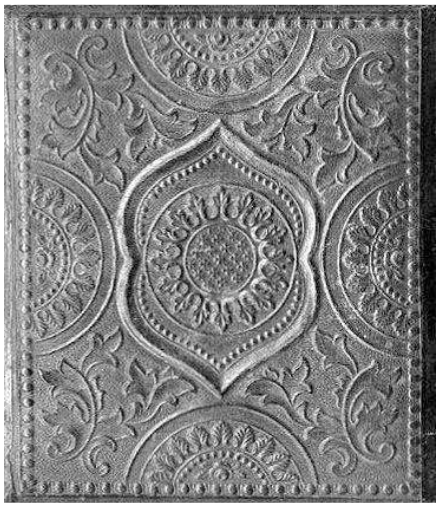
1859

Paper

Tangent Circle 6c

1856? - 59?

Candice Brown



Ornamental Circles B

easily confused

with *Ornamental Circle Theme*

Robert Brown

Circle6_1864

1864-65

Doug Thoma

Arabesque 6th

~ 1864/65 ?

also 9th

Eastwood Estates

Illustration needed

Circle6_1865

1865

Trefoil 6th

~ 1865

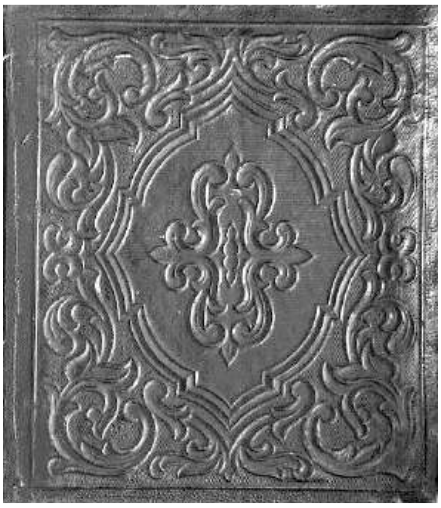
Also in 9th

Illustration needed

LeafCircle Motif 6th (Rinhart 197)

1861-62

Cardboard



Fort Sumpter 6th

1860 - 61 (64)

in 6th, 9th

Maartje de Nie

Shiloh

~ 1861 ?

Leather

Antietam 6th

1860-62

also in 9th

Manassas 6th

1861

6th & 9th

Matthew

Fort Donelson 6th (~ Rinhart 53)

1861-62

paper. in 6th, 9th. Rinhart: *Cross Patee, Variation*

Ellen Sheffield Wilds

Fredericksburg

1862

Gettysburg 6th

~ 1864

more commonly in 9th

Ellen Sheffield Wilds

Appomattox 6th

1865-66

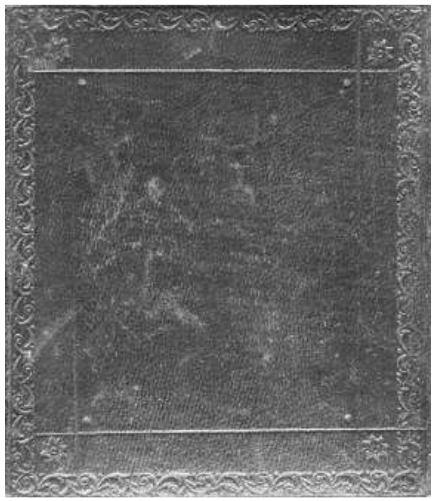
in 6th, 9th

Lines & Corners 1

~1842

Only one of many similar designs, usually fliptop

Jason Wright

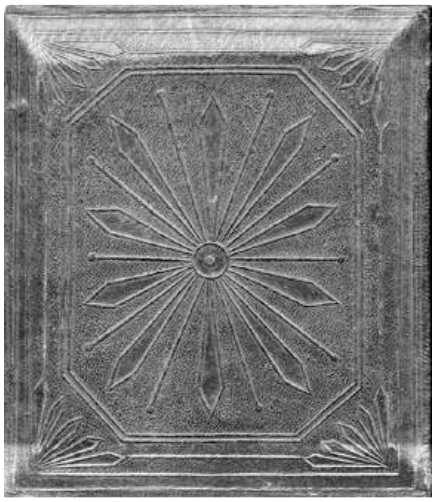


Lines & Corners 2

~1842

another example from many of similar design

Jason Wright



Spear and Rod (Rinhart 166)

~ 1842 according to Rinhart

Leather. By Larwill

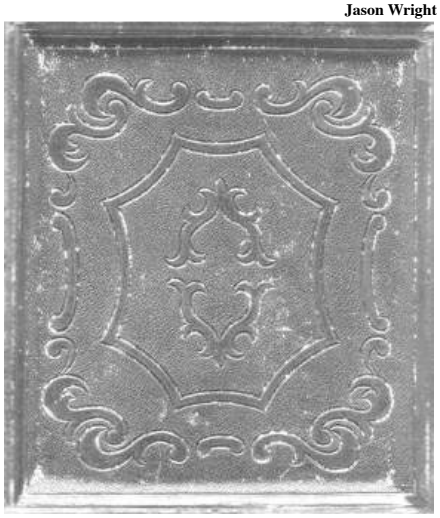
Jason Wright

Illustration needed

Plain Octagon (Rinhart 218)

~1844 according to Rinhart

Leather



Plumbe's Octagon (r219, b5-62)

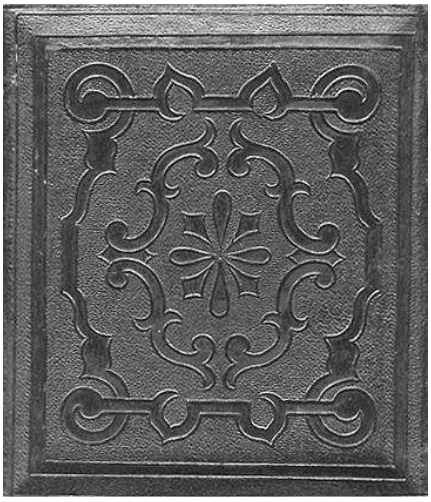
1846 - 48

Leather, by Plumbe, Shew, Studley&Gordon, Also 4th Rinhart: "*Curved Octagon with Scroll Center Motif*"

Geometric 187 (Rinhart 187)

~ 1846 ?

Leather. Also bordered as 4th Rinhart: *"Scroll Motif with Geometric Border"*

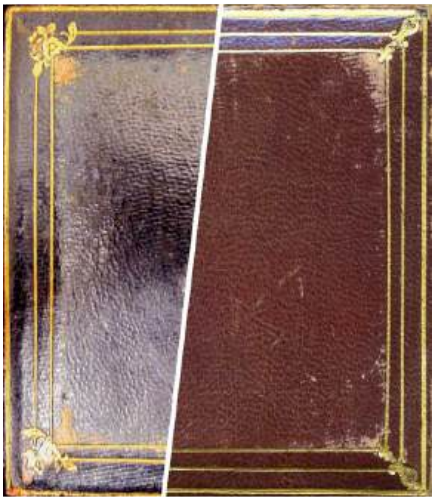


Vanishing Point

~ 1848 ?

Leather. Also bordered as 4th

Jeff Green



Gold linear

many varieties, 1847-49

These examples from the back of *Bird in Gold*

Greg French

Odd Couple back (Berg 5-81)

~ 1850

back, paired with OddCouple front.

Signed “Paquet”

Richard Marks

Book of Kells A

1850-54

Leather. Found on back side of many cases

Illustration needed

Book of Kells B (Berg 5-78)

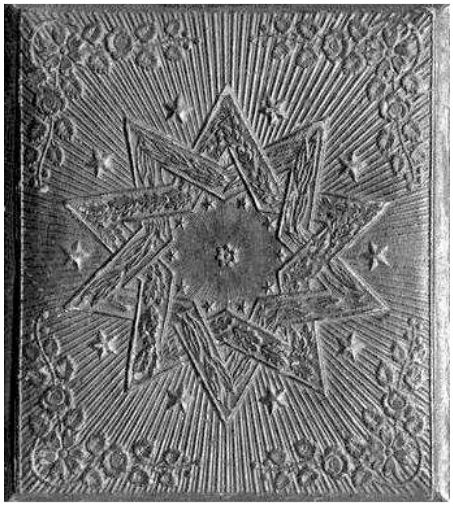
~ 1855 ?

Brittle Star (Berg 5-123)

~ 1848 ?

By W. Shew, casemaker 1844-48

Greg French



Intertwined Stars (Berg 4-38)

Similar to Rinhart 201, which they date to ~ 1860

Klein Archives

Interlaced Spirals (Rinhart 228)
~1845 according to Rinhart
leather

Klein archives

Illustration needed

Sixteen Petals
?

Illustration needed

Thumbprint (6th)
1850-52
Also bordered as 4th

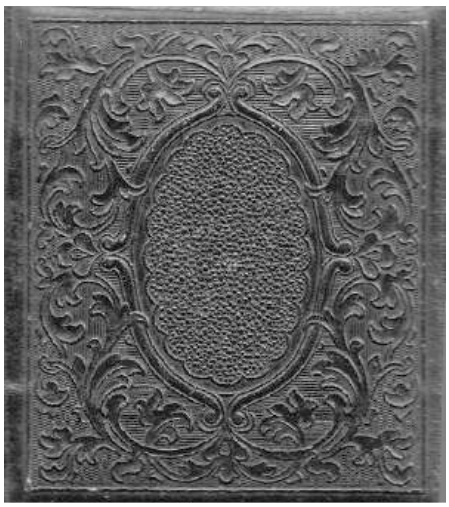
Spirograph1
?

Tribute to Sand
1856

Mary Jordan

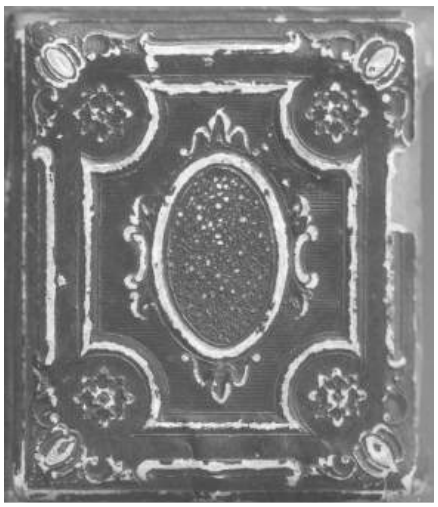
Eight Curls
late 1850s ?

Kinzua Collections



Scalloped Sand Trap
~ 1857

Ellen Sheffield Wilds



Renaissance
~ 1861 ?
paper

Framed Scrollwork

~ 1849 ?

Leather

Scalloped Desert 2

?

Leather

Scalloped Desert 1

1853

Scalloped Starburst

~ 1857 ?

Doug Thoma

Framed Oculus

~1859 ?

Mary Jordan

Illustration needed

Cut Glass (Rinhart 225)

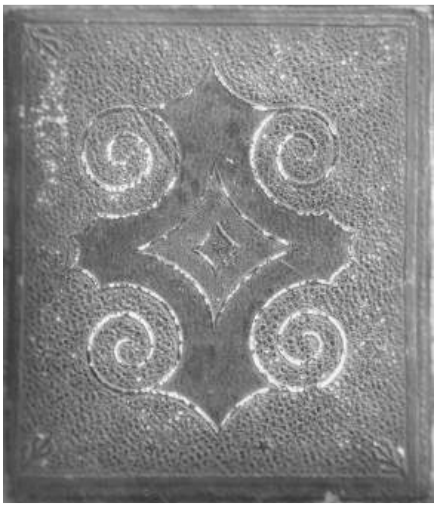
1864-65

Cardboard. also 9th. Rinhart dates this to ~1853

Patriotic verso

early 1860s

Cardboard, back of many patriotic cases



Four Whirlpools

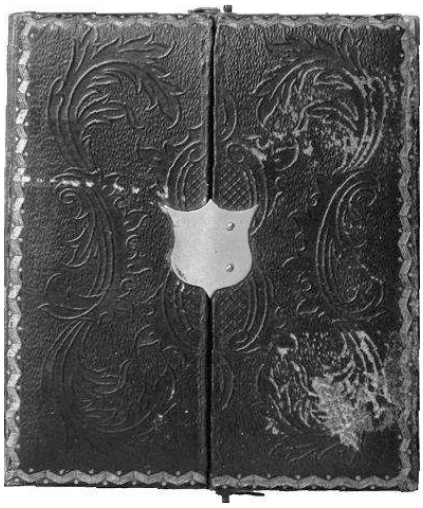
~ 1843 by conventional wisdom

Illustration needed

Scroll & Leaf Design (Rinhart 185)

~ 1847

Leather



Scroll & Leaf Design in double door case

1849

Leather. Case patented 1849 by Larwill

Maartje de Nie

Mouseketeers

~ 1865

in 6th, 9th

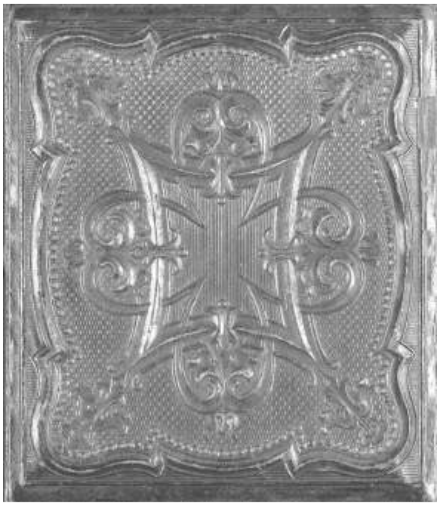
Ellen Sheffield Wilds

Crochet Theme (Rinhart 162, Berg 5-149)

~ 1840 according to Rinhart, a typo for 1850?

Leather. Made by Larwill

Nordic Museum



Gothic

~ 1865 ?

LOC

Elephant Ears 6th

~ 1860

paper

Sextet

1861

Kaleidoscope 6th

1863-66

similar 9th design

Larry Lingle

METHODOLOGY

You don't need to read this. I provide this methodology only to alleviate any concerns that my dates are inaccurate or unproven. If you are a trusting person, read no further; make yourself a nice cup of tea, and read a trashy novel instead.

The dates I assign to mats and cases are based on an analysis of over 2,100 objectively dated cased images, mostly found online. Unfortunately, not all of these 2,100 dated images are accurately dated. Curators and experienced collectors are aware that a great number of cased images are no longer in their original cases, or behind their original mats. While researching for this guide, I have established four great truths:

1. 10% to 30% of all cased images have been swapped and are no longer with their original cases or mats.

2. By cataloging enough objectively dated images, the swapped cases and mats can be identified as statistical outliers and can be eliminated from further analysis.

3. To use this guide to date a cased image from your collection, you should look up dates for the case, preserver and mat styles. Only if the dates overlap and are consistent with the content of the photograph should you tentatively assign a year to your image.

4. In spite of great truth #3, sometimes you will still get the wrong date.

What is a cased image?

For my purposes *cased* images are mostly daguerreotypes, ambrotypes, and early tintypes, but a few others have snuck into my database: opalotypes, pannotypes, paper photographs, and cased miniature paintings. I include dated cases that have lost their preserver, mat, and image as well as uncased images behind period brass mats.

I make note if the image is British or European. British cases and mats are often distinctively different from American ones. Daguerreotypes from continental Europe tend to be in small frames, not cases, and don't help my research, although I continue to add dated European images to my database. Asian and African images usually follow the pattern of the controlling colonial power, and I treat them as such. Latin American and Canadian images follow the American styles.

Japanese ambrotypes from the Meiji era (1868-1912) are not included in this study.

As of June 2014, I have found over 2,100 dated images. However, these images are not equal. For some the date is approximate; for others it is precise (one was “taken September 3, 1856 at 2½ o'clock Wednesday”). Some images are accompanied by photographs of the back and front of the cases, of the case pad, and a close-up of the preserver. Other photographs show only a cropped close-up of the subject with a portion of the mat, leaving the existence or style of the case, preserver, and pad unknown. As of June 2014, my database has:

- 1763 for which mat design is known
- 1280 with preservers, 1061 of which have been identified
- 964 in cases, 834 of which are identified
- 487 cases showing the gilding pattern
- 29 daguerreotypes with hallmarks

My sources include:

- The Library of Congress
- The Smithsonian Institution
- eBay
- Cowan auctions
- GoAntiques.com
- Worthpoint.com (many old eBay and Cowan auctions)
- Over thirty state historical societies
- The Boston Athenaeum
- Harvard University library
- University of California library
- University of Michigan library
- The Daguerreian Society's online collection
- The Daguerreian Society’s Annuals and newsletters
- State digital archives from over twenty states
- The Library Company of Philadelphia digital collections
- The New York Metropolitan Museum of Art
- The Getty Museum
- Pinterest.com
- Flickr
- The American Antiquarian Society
- PhotoTree.com
- My personal daguerreotype collection
- Several daguerreotype reference books
- Personal collections of friends and fellow collectors

Criteria

The purpose of this study is to find objective dates for cased image styles. To use images with estimated dates would be to indulge in circular reasoning. Objective dates may be either:

- Intrinsic to the plate. Examples include a date scratched or otherwise printed on the plate, and images where the date is painted on a scenery prop
- Written inside the case or on an accompanying piece of paper in a nineteenth century hand
- Specific to the day or month, even if in a modern hand or the source of the date is unknown
- Estimates based on the age of a young child if the birth date of the child is known
- Post-mortem images if the subject is identified and the date of death known
- Marriage portraits if the subjects are identified and the date of marriage is known
- Images of newsworthy events, dated by research
- Soldiers if the date of enlistment and date of death are both known and fall within two years of each other
- Images with tax stamps, 1864-1866

I provisionally accept the following, but make note that the date is uncertain:

- The online description of the daguerreotype is accompanied by the magic words "dated" or "documented" but is not shown. While many of these dates are accurate, some of them turn out to be patent dates or estimates
- Dates based on the name and address of the photographer or case maker, which can be identified to within a year using references such as Craig's Daguerreian Registry
- Dates specified only to the year in modern writing, without any other evidence to back it up. Dates that are big round numbers, such as 1850, are especially suspect, as they may be estimates
- Due to the dearth of data before 1843, I have accepted in faith the estimated dates of several early daguerreotypes

I ignore images that:

- Are labeled as "circa" or "about," even if in a nineteenth century hand (exceptions made for images of young children, as the date is likely an estimate based on the known birth year of the child)
- Estimates by twentieth century owners for which the reason is not given
- Patent dates on mats and cases

Processing the data

My first step is to examine images that are technologically out of date:

- Tintypes before 1856 (The process was invented in France in 1853; examples before 1856 in my database appear to be outliers)
- Ambrotypes before 1854 (The process was invented in England in 1851; examples before 1854 in my database appear to be outliers)
- Union cases before 1854
- Images with revenue stamps before 1864 or after 1866

In some situations, an image that has a "dating problem" can still partially contribute to my research. For example, if a daguerreotype is dated 1845 and is in a union case, then something is wrong, since union cases were introduced about 1854. If this date is written on the back of the daguerreotype plate, I can assume that the case has been swapped. In this situation I use the daguerreotype mat shape for analysis, but mark the case as invalid. Another example: if written inside a daguerreotype case are the words "John Smith 1851" and the daguerreotype shows a young woman, I assume that image is not original to the case, but that the case is from 1851.

For each image, I identify the following:

- Image type (daguerreotype, ambrotype, or tintype)
- Mat material (usually brass)
- Mat shape (octagonal, nonpareil, oval, etc…)
- Any design stamped on the mat
- The style of the preserver
- Whether it is a leather, paper, cloth, or union case
- For leather cases, the gilding pattern
- The design on the case pad, if any
- The specific design of the case, if it can be identified
- Hallmark (rarely)
- Anything casting uncertainty on the date

I then go through my data and analyze each mat shape, stamped mat style, gilding pattern, case design, etc… In a few instances, I can group several styles together for chronological analysis. For example, there are at least four different sixth cases sharing the same outer design as is found on *Grape Medallion*, with either grapes, an eagle, roses, or geometric pattern in the center medallion.

Most styles are found primarily for only a few years. I examine the outliers to see if there are any obvious reasons to remove them from my database.

Next I check for images that are outliers in more than one column (such as having a case being "too early" for the indicated date, and a mat "too late" for the same date). These images were likely repackaged or re-cased. Depending on the location of the date documentation (plate or case), I may remove the mat, preserver, or case from my final analysis.

Not all images are equal in either their documentation or in the certainty of their dates. I have to consider each outlier

individually. This is where having seen over 50,000 images online comes in handy. I have to be careful, however, to avoid Caliph Omar's reasoning. According to legend, when Omar's armies conquered Egypt, he was asked what to do with the great classical library at Alexandria. Omar supposedly replied: “If those books are in agreement with the Quran, we have no need of them; and if these are opposed to the Quran, destroy them.”

By this reasoning an outlier, if the rest of my database opposes it, should be eliminated. But this may be premature, particularly if my data is thin regarding this particular style. Further data may fill in the gap, revealing that the outlier is instead an early example of the style.

Omar's reasoning would also support ignoring new data that supports my existing dates. If, after searching online, I come across the umpteenth example of a common mat style with a common case, I will be tempted to move on, ignoring the image. But doing so would prevent me from being able to properly identify true outliers later; in short, the more data, the easier it is to find outliers.

Assigning dates

If a particular style is common and I have a lot of data, it is usually easy to assign a date range to the style.

If a particular style is rare (e.g. – only two examples in my database) but they are both dated in the same year, I confidently assign that year to the style.

The more spread out my data points are, the more data points I need to draw a conclusion.

There were a few situations where I did not have enough direct evidence to assign a date, and was forced to be indirect. For example, the unusual shield-shaped mat I have found only on one dated daguerreotype of 1851. However, while looking through 50,000 images online, I found two other daguerreotypes with shield mats. In both cases they (like my 1851 example) had preservers and plain silk pads. Since preservers came into use around 1847 and silk pads faded from use in the early 1850s, I feel confident that my one dated example is not an outlier; I am confident dating it to “about 1851.”

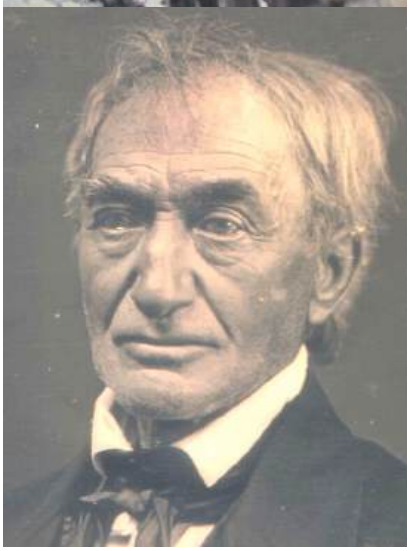
CLOSING REFLECTIONS

"For there would be a real pleasure in watching it. He [Dorian Gray] would be able to follow his mind into its secret places. This portrait would be to him the most magical of mirrors. As it had revealed to him his own body, so it would reveal to him his own soul… He would examine with minute care, and sometimes with a monstrous and terrible delight, the hideous lines that seared the wrinkling forehead or crawled around the heavy sensual mouth, wondering sometimes which were the more horrible, the signs of sin or the signs of age."

- Oscar Wilde,
The Picture of Dorian Gray

As Dorian Gray's friend, the painter Basil Hallward, remarks, "Sin is a thing that writes itself across a man's face. It cannot be concealed." In the popular imagination, *The Picture of Dorian Gray* is about a painting that ages while the subject remains young. But in the novel the disintegration of beauty is due to corruption of character, not age. When Dorian slashes the painting, thus restoring it to its original beauty, he collapses "withered, wrinkled, and loathsome of visage." He is thirty-eight years old.

The belief that the face is an outer manifestation of the soul was a pervasive nineteenth century attitude. This is the century that gave us phrenology – a psuedo-science that taught that shape of the skull reveals a person's moral and intellectual character. Phrenology's heyday coincided with the beginning of photography. The 1846 book *Rationale of Crime…being a treatise on criminal jurisprudence considered in relation to cerebral organization* used these principles to identify



criminal tendencies based on physical appearance. It was illustrated by engravings based on some of Mathew Brady's earliest daguerreotypes.[81]

Daguerreotype portraits are often described as stiff or formal. I prefer to take the 19th-century view, that during the 30-seconds it took to expose a daguerreotype, the subject could not hide. No quick smile can obscure the subject's character. These pictures look into the subjects' souls. Perhaps this is because of the exceptional clarity of the daguerreotype. Perhaps it is because both they and we know that this may be their only photograph.

But this is absurd, as Sherlock Holmes himself corrects Doctor Watson after the good Doctor admires the beauty (and thus character) of a visitor in *The Sign of the Four*: "It is of the first importance," Holmes cried, "not to allow your judgment to be biased by personal qualities… I assure you that the most winning woman I ever knew was hanged for poisoning three little children for their insurance-money, and the most repellent man of my acquaintance is a philanthropist who has spent nearly a quarter of a million upon the London poor."

Still, when looking at my modest collection, I prefer to view them as a Phrenologist would, and take the view of Doctor Watson, who sees intellectual and moral character reflected in faces. In daguerreotypes, I see beauty, wisdom, and humor. I also see weakness, dejection, bigotry, and occasional just plain mean cussedness. After all, which is more interesting to collect: faces or souls?

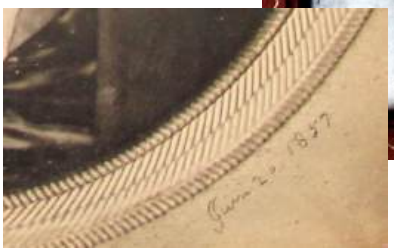
HOW YOU CAN HELP

This book is a labor of love and a work in progress. You can help make the next edition more accurate, complete and precise. Both my research, and the illustrations used in this book, are due in part to photographs emailed by collectors and dealers like yourself.

I need knowledge of objectively dated cased images, and I need illustrated examples of the case and mat styles.

Because some images are not in their original cases or behind their original mats, I need to see LOTS of dated images so that I can identify the statistical outliers. I also have found hundreds of mat and case designs for which I have found only one dated example; before I include a style in this book, I need a second dated example to verify that the date is correct.

If you have objectively dated daguerreotypes, ambrotypes, or cased tintypes, would you share

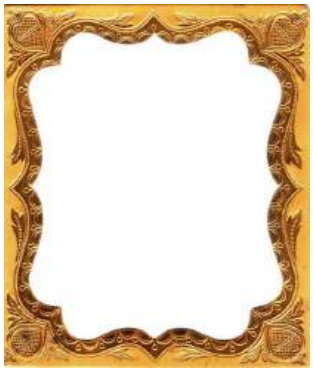


photos of them with me? I will not share photos without permission, but seeing them will help me with my research. They do not need to precisely dated; +/- a year is fine. One might be an image dated by the apparent age of a young child whose birth year is known. If you have an objectively dated image that you bought on eBay, I may already have it in my database, but very likely I only have partial information about the image, as eBay photos are often blurry, cropped, or do not show the case or the pad.

I especially need to see more dated images with cases from the 1840s. I do not need sixth or ninth plate images from 1861 or later, unless they are in unusual cases.

Ideally, send JPEGs of the image with mat and preserver design visible, the case exterior, the felt pad, and documentation of the date. It doesn't matter if these are separate JPEGs, or all visible in one JPEG. Please invent a distinctive title for your image, which I can use if I need to get back to you. That way both you and I will know that we are discussing the same cased image.

Another way you can help is to share scans or high quality JPEGs of mats and cases, even if they are not from dated images. My tables of mat and case styles, with associated dates, are currently illustrated with a mixture of high and low quality images; some of them are placeholders. If you have many images to share, please email me first.



Lastly, please let me know of any errors. As a fallible human working with fallible data, I can guarantee that this edition contains at least 13½ errors.

You can write me at

seanwilliamnolan@gmail.com

Thank you.

- Sean William Nolan

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Rudiskill, p 198, referencing Taft, *Photography and the American Scene*, pp 63,76
880 billion photographs will betaken in 2014:
http://www.businessinsider.com/selfies-and-2013-2013-12
I assume half of all daguerreotypes worldwide are American.

[3] *CONSUMER PRICE INDEX (ESTIMATE) 1800-2013*. http://www.minneapolisfed.org/community_education/teacher/calc/hist1800.cfm

[4] 98.9% of images in my database are standard plate sizes.

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[6] Goodman, *The Sun and the Moon*. pp 138-140

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[9] Rudisill, pp 50-51. Original *Der Leipziger Anzeiger* quoted in *Der Geist meines Vaters* (Munich: Albert Langen, 1925), pp 39-40

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