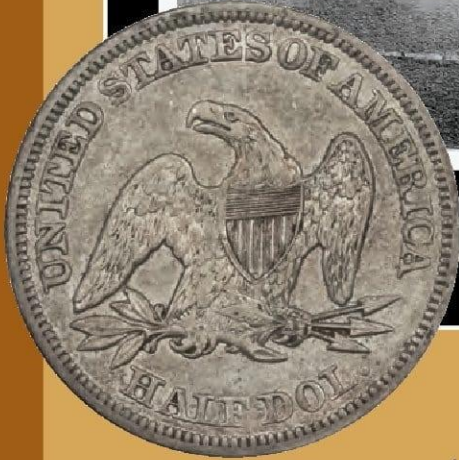


A Register of Liberty Seated Half Dollar Varieties

Volume VI



Philadelphia Mint
1856 - 1873 No Arrows

By BILL BUGERT

*Including consultations with Randy Wiley
Foreword by Dennis Fortier*

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Cover coins are Bill Bugert's 1856 Sawtooth Cud Obverse WB-4 half dollar
and
Randy Wiley's 1873 No Arrows Open 3 WB-6 half dollar.

Cover artwork by Jim Macor, Goldfinch Design.

Foreword by Dennis Fortier

The 1993 publication of “The *Complete Guide to Liberty Seated Half Dollars*” by Randy Wiley and Bill Bugert changed the world of Liberty Seated Half Dollar collectors. Prior to 1993, Beistle’s highly regarded (and ground-breaking for the time) 1929 “*A Register of Half Dollar Varieties and Sub-Varieties*,” provided the only written reference for the series. It was, and remains, however, a challenging tool to use in practice due to some ambiguous descriptions and the absence of photographs. Wiley and Bugert leveraged years of personal research, extensive reference collections and modern photography to update and expand upon Beistle, providing collectors greater access to the series through a readable and easy-to-use reference.

Bill Bugert changed Liberty Seated half dollar collecting yet again with his 2009 “*Register of Liberty Seated Half Dollar Varieties, Volume I, San Francisco Branch Mint 1855-S to 1878-S*.” Taking advantage of additional years of research and further, significant advances in photography, Bill prepared an exhaustive and exquisitely detailed reference describing every known San Francisco die variety. This landmark effort was but the first in a series of volumes documenting San Francisco, Carson City, New Orleans, and now, Philadelphia Liberty Seated Half Dollar die varieties.

Bill’s fifty-year passion for Liberty Seated half dollars has motivated him to assemble an expansive reference collection of over 1,500 Liberty Seated half dollars. However, the work presented here, and in all volumes of the Register, does not rely solely on Bill’s own collection. Collaborative relationships with other passionate collectors, who generously loaned their coins for study, help form the basis of these authoritative volumes. Bill has also diligently, one might even say relentlessly, developed his skills as a first-rate numismatic photographer. A skill set, which when coupled with modern photographic technology, places these Registers in a class by themselves.

This reference, “*A Register of Liberty Seated Half Dollar Varieties, Volume VI, Philadelphia Mint, 1856-1873 No Arrows*,” is the sixth in the series of books (Registers) that, in aggregate, lists every presently known Liberty Seated half dollar die variety. This Register, just as each previous reference in the series, has been eagerly awaited by serious collectors of Liberty Seated half dollars. Bill has listed 217 die varieties for the Philadelphia Mint during the years 1856 to 1873 No Arrows in this current volume. This brings the total number of die varieties listed in the six volumes combined to a staggering 1,141. Yet Bill’s work is not finished. One more volume is planned to complete the series. The seventh and final volume will document Philadelphia issues from 1853 With Arrows to 1855, and 1873 With Arrows to 1891; an estimated 250 additional die varieties.

Bill has chosen to make this sixth reference available in online format only, as the numismatic world migrates increasingly in that direction. The five previous volumes are currently available in online format free of charge on the Liberty Seated Collectors Club website, www.lscweb.org. This sixth volume now joins them. Though the entire book series is now available online, owners of printed editions of the first five volumes hold treasures that they value highly, not simply for the information contained within, but with no more than 250 copies of any one volume having been printed they are also collectors’ items in their own right.

An unpretentious individual, Bill is reluctantly coming to terms with the legacy he has created for himself. He has labored for fourteen years (so far) at what many believed to be an impossible task. That task moves nearer to completion with this sixth of seven volumes. Bill’s “WB” numbers are currently an industry standard and I have no doubt that the name of Bugert will be long remembered by future numismatists.

It is my good fortune to call Bill my very dear friend; a relationship that goes beyond numismatics. Through our shared passion for Liberty Seated half dollars Bill has mentored me in the nuances of the series and is largely responsible for the numismatist that I am today. I am honored to write this foreword to his work.

Dennis Fortier
Liberty Seated Collectors Club Vice President
Seated Half Society President

Bill Bugert's Foreword

This Register is the sixth in a series of seven planned books on the die marriages of Liberty Seated half dollars. The currently published Volumes on the Liberty Seated half dollar die marriages are listed with summary information in the following table:

Volume	Date Published	Half Dollar Contents	# Die Marriages
I	May 2009	San Francisco 1855-S to 1878-S	228
II	May 2010 July 2013 (2 nd Ed.)	Carson City 1870-CC to 1878-CC	96 100
III	June 2011	New Orleans 1840-O to 1853-O NA	217
IV	November 2013	New Orleans 1853-O WA to 1861-O	207
V	November 2016	Philadelphia Mint, 1839-1852	172
VI	June 2022	Philadelphia Mint, 1856-1873 NA	217

This Volume contains information for the 217 half dollar die marriages struck at the Philadelphia Mint from 1856 to 1873 No Arrows.

In 1993, Randy Wiley and I finished *The Complete Guide to Liberty Seated Half Dollars*. That book listed a finite and pre-determined number of the most easily identifiable die varieties of the series. Many other die varieties were known at the time of publication but were not included for various reasons best discussed elsewhere. This register is different and individually documents Liberty Seated Philadelphia half dollar die marriages of obverse, reverse, and collar dies for 1856 to 1873 No Arrows. It is commonly misunderstood by many collectors and dealers that the Liberty Seated denominations have been studied as extensively as the older copper and bust series, where the discovery of new die marriages is a rare event. This is far from reality. The older copper and bust series have been extensively collected and exhaustively studied for many decades. The Liberty Seated series are far behind in that respect and have a lot of catching up to do. I hope to help that along for the half dollars.

This Register does not include everything everyone wants to know about Philadelphia Mint Liberty Seated half dollars. Specifically, no information is included on condition census (generally, with the exception of a few dates and varieties, I have little interest in that) and there is no pricing information (pricing information has limited value because it is too volatile and including it would quickly outdate this reference). Alternatively, I have included estimated rarity ratings and will leave condition census and valuations for others to study and to report.

It is no coincidence that the name of this Register is similar to ML Beistle's 1929 reference on half dollar die varieties. His work provided me with my initial impetus to collect half dollars by die marriage when I purchased a copy of his book in 1973 in Augusta, GA. I have studied, written, spoke, and exhibited information about ML Beistle extensively and have an admiration for his personal and professional accomplishments.

Lastly, this publication could not have been possible without the cooperative efforts of Randy Wiley. He and I have been studying the die marriages of these coins for over four decades and much of the information we derived together is contained herein.

Thanks for taking the time to read this and I hope this Register finds its use for your numismatic interests.

Bill Bugert
Gettysburg, PA
June 2022

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Introduction

The purpose of this Register is four-fold:

- **To document all the currently known Liberty Seated half dollar die marriages produced at the Philadelphia Mint from 1856 to 1873 No Arrows**
- **To assist the beginning or advanced Liberty Seated half dollar collector into expanding beyond type, date, or date/mint collecting into die marriage collecting**
- **To aid the casual collector or dealer with proper variety identification and other pertinent information**
- **To establish a standard nomenclature for the Liberty Seated half dollar die marriages.**

At the time of publication, all known 1856 to 1873 No Arrows dated Liberty Seated Philadelphia Mint half dollar die marriages are documented in this register. I have included the key characteristics of obverse and reverse die marriages so that you could readily identify your half dollar. It is important to note that the mid-1800 minting technology had advanced to a state that, in contrast to the pre-1836 bust style designs, the date (with the exception of 1853-1855 Arrows half dollars), and mintmarks were the only design elements emplaced into the working dies used to mint coins. The other design elements such as dentils, Liberty, stars, denomination, legend, motto, and eagle were all in the working hub and, consequently, have no variations when transferred to the working dies. These advancements, however convenient for the minting process, vastly compound the difficulty in identifying characteristics of the individual working dies, and consequently, the die marriages. We must rely on variations in the placements of the date and mintmark and die imperfections for proper variety identification.

For ease of the readers' use, I desired to depict each obverse and reverse die marriage on two pages; this space limitation forced me to be selective on the die characteristics that I specified and photographed. Consequently, I picked the die lines and cracks that I thought were most prevalent for that variety and that could be easily identified using a quality handheld 10-power magnifier and, for date grid measurements, a 10-power handheld optical comparator. Make no mistake about it, a good 10-power stereomicroscope with a reticle is a worthwhile investment when studying and attributing varieties of all denominations at home. I use the 30-power setting on my stereo microscope to verify attributions on coins of poor die diagnostics.

Excluding the Beistle number system that is not used today, the current standard Liberty Seated half dollar variety nomenclature is the WB-100 series system. This WB number, for Wiley-Bugert, is derived from the 1993 book, *The Complete Guide to Liberty Seated Half Dollars*. Unfortunately, and a point of some confusion, many WB-100 numbers by design include more than one die marriage per number because that book lists major varieties only. For example, the 1840-O WB-104 Large Mintmark half dollar included eight reverse dies. This system is unsatisfactory for the serious half dollar variety collector where a single number represents a single die marriage. This Register starts anew with separate die marriages with WB-X series numbers.

It is very important to understand that the die characteristics photographed and/or described herein may or may not be visible on your coin. Die states, coin wear, toning, damage, etc. may affect the visibility of these characteristics and, for those reasons, you may find some diagnostics on your half dollar that are not listed in my descriptions. In many cases, I have included photographs of the latest die state and may include comments of other die states. Coins grading below VG will not show most of the die characteristics I have depicted simply because the key die diagnostics are worn away.

Online version only. In discussing my plans with others before this Volume was published, some collectors and dealers wanted an online version while others wanted a useful physical media. I chose the former as it is more convenient for use away from home.

Seated Half Society. In my previous Volumes, I stated “It is my desire that this reference creates sufficient interest in collecting by die marriage and someday the “Seated Half Nut Club” (i.e., similar to the “Bust Half Nut Club” where a requirement for membership is owning at least 100 different varieties of the bust half dollar series) is a well-known and popular club.” I am happy to report that LSCC Vice President and good friend Dennis Fortier has taken that challenge and formed the “Seated Half Society.” As of this writing, over 25 Liberty Seated half dollar enthusiasts joined the Society and more are certainly to follow.

As I mentioned in my foreword, I know it will be a disappointment to some but I did not include pricing information, grade availability, or valuations of the die varieties in this Register. In my experience, that type of information is very quickly outdated and useless after a few months if not updated. Collector interest and the market will drive most valuations. The financial complexities of the rare coin market are best left to the economists. As an alternative, I included initial rarity estimates. Almost all the rarity numbers are my estimates based primarily on years of observation and by discussions with other knowledgeable individuals. I have a varying comfort level with many of the dates; it will take years to properly associate a correct rarity number with a specific die marriage.

This book does not include a tutorial on basic coin collecting, grading half dollars, or a lengthy history behind the Liberty Seated series. I assume the reader has a basic understanding of these numismatic topics; besides, many other references cover them in great detail and I will not duplicate the efforts of others here. The following introductory sections contain a lot of background information required to understand the variety attributions of the Liberty Seated half dollar series. Please take sufficient time to read and understand them before attempting to use this Register.

At this point, I think it appropriate to provide some advice and encouragement to collectors of die marriages of Liberty Seated half dollars. First, if you are looking to complete a die marriage set in a few short years, look elsewhere. It will literally take many years of aggressive searching to fill all or most of the holes. Even with the benefit of a thick wallet, many die marriages seldom appear on the market and when they do, are quickly snatched up by other serious collectors with similar goals. If you bound your goal to collecting a few years, mints, or types, then that target becomes easier to attain. Otherwise, collecting all the die marriages of all the dates is an expensive, nearly impossible lifetime commitment (e.g., there are over 750 documented mintmarked Liberty Seated half dollars alone). I know of only three collectors, including myself, with the stamina to attempt this and, I can attest, I have spent nearly four decades collecting die marriages of these half dollars. However, it is a wonderful pastime that has kept my interest for many years and provided many hours of enjoyment; it also helps to have a supportive spouse or partner. I wish you the same.

Lastly, as I mentioned in my Foreword, these Registers would not have been possible without the efforts of my numismatic friend and colleague, Randy Wiley. He and I have been studying these half dollars together since the early 1980s and we have spent many hours together engrossed in determining die diagnostics, counting reeds, taking notes, and discussing new finds. His astute analytical collecting techniques, motivation, and sheer determination are in a large part responsible for what is being published herein. For that and for his friendship, I thank him.

Abbreviations, Conventions, and Definitions of Terms Used in this Book

It is very important to understand the terms used throughout this text so that my written descriptions convey the proper meaning to you, the reader.

Liberty and LIBERTY. “Liberty” in lower case letters refers to the figure of Miss Liberty on the obverse. “LIBERTY” in upper case letters refers to the words LIBERTY found on the scroll of the obverse design.

Viewing a coin. Often confusing if not clarified, the terms “right” and “left” are used when viewing a coin and referencing features from the viewpoint of the observer’s right and left respectfully. For example, when referring to the eagle’s left claw, the claw referred to is that on the viewer’s left and NOT the eagle’s left claw (which would be on the observer’s right).

Star numbering. Obverse stars are counted clockwise starting with the first star on the lower left to the thirteenth star at the lower right.

Measuring units. I opted for the U.S. standard of inches to measure date height, mintmark size, and diameters of coins.

Photographs. With rare exceptions, I photographed all the coins listed in this Register. Almost all images are not actual size but scaled to annotate various desired features. Some collectors may want to reference date positions to the dentils below the date instead of the date grid technique. Consequently, date position images include the lower dentils.

Date Grid measurements. See the detailed explanation elsewhere in this Register.

Device and device naming. A device is the primary motif on the obverse and reverse die. For the obverse, the primary device is the figure of Liberty while on the reverse, it is the eagle. Supporting devices are also on the obverse and reverse. See the supplemental diagrams and descriptions.

Die Variety versus Die Marriage. These terms, although different, are used almost interchangeably. Die variety refers to a coin struck from dies and, irrespective of die states; all pieces from those dies have the same characteristics. Die marriage refers to a coin struck from a combination of three dies: the obverse, reverse, and collar dies. The differences are subtle but they, as mentioned, are almost used interchangeably. It is important to note that a die crack may help to identify a die variety but is a die state and not a separate die variety or marriage.

EDS, MDS, LDS, VLDS. These acronyms are short for early die state, middle die state, late die state, very late die state and refer to a subjective progress of die deterioration.

K-1 thru K-12. The abbreviation for a clock’s hour hand position (i.e., 1 o’clock thru 12 o’clock) specifically around the outer circumference of a coin.

Lines, Lumps, and Gouges. These terms are utilized when describing the various die diagnostics for each variety. A *line* on the coin is raised and results from a scratch, stray mark, slip of the engraver's tool, and/or polishing of the dies. A *lump* is a raised piece of metal on the coin that resulted from die damage, rust, and/or clashing of the dies. *Gouges* are also raised metal on a coin resulting from oddly shaped heavier damage to the die. These three items are critical to differentiating dies and identifying the key die characteristics.

Reverse olive leaf numbering system. Reverse olive leaves are numbered 1 thru 5 starting with 1 as the lowest olive leaf then numbering clockwise 2 thru the uppermost leaf as #5. Note: leaves 2 and 4 show only partially.



Reverse shield line numbering system. Reverse vertical shield lines are designated alpha-numerically with a letter designating a group of shield lines and a number referencing an individual vertical shield line within that group. For example, B-3 refers to the third (3) vertical line (counting from the left) in the second grouping of shield lines (group B). C-2 refers to the second shield line in the third grouping. Possibilities include A thru F - 1 thru 3.

Enhanced die crack drawings. On selected die marriages, I have included enhanced die crack diagrams. Prominent die cracks are hand drawn on low resolution printed photographs, scanned, and inserted for the readers use. As these die cracks are hand drawn and my hand is no longer optimally steady, they may not be exact and will not be all inclusive of the die cracks found on all die states of the dies; they are representative of the major die cracks that may be found for that die marriage. These enhanced die crack diagrams are meant to provide a quick visual reference and identification of specific dies.

WB-#. Die marriages are designated with a WB-#; WB is an acronym for Wiley-Bugert. I gave much thought to what numbering system to use in this reference. Randy Wiley and I used a WB-100 series numbering system in our 1993 book, *The Complete Guide to Liberty Seated Half Dollars*. Although seemingly ideal, I could not use that same system because many WB-100 series numbers used in our 1993 book include multiple die marriages lumped under a single WB variety number. I wanted to have a compact, easily remembered and referenced system that, for inventory and display purposes, could be readily sorted on a computer. The WB-# format was the next best option and is used herein. To aid the reader and long-time collectors, cross references to our first book's WB-100 series numbers are included for each die marriage.

Cross references. References of a specific die marriage to other publications are provided with each varieties' description. WB is a reference to varieties listed in Randy Wiley and Bill Bugert's *The Complete Guide to Liberty Seated Half Dollars*.

Philadelphia Mint Half Dollar Design Types

1856 – 1873 No Arrows

There are only two major design types for 1856-1873 No Arrows Philadelphia Mint half dollars and they are detailed in the following table.

Major Design Type	Dates of Design Type	Design Characteristics
No Motto, Large Letters Reverse	1856-1866	Introduced in 1842, the size of the reverse legend's letters was increased to approximately .080 inches in height. There is no scroll or motto above the eagle's head as in the next design. 
With Motto, Large Letters Reverse	1866-1873	In 1866, the Mint added a scroll with the motto inscribed "IN GOD WE TRUST" between the eagle's head and the legend to the old reverse Master Die and a new reverse Master Die. This addition is the most significant design modification to occur during the entire span of the Liberty Seated half dollar series. 

Minor Design Types. Of less importance when compared to the major design types listed above, the Liberty Seated half dollars of 1856-1873 No Arrows do have minor differences that are depicted in the tables on the next pages.

It is important to understand the relationships of the hubs (positive images) and dies (negative images) during the die-making process. There are several orders of die-making with hubs and dies. A master hub is initially made from a design and includes the central device such as the eagle or Liberty. One or more master dies are made from the master hub to which the dentils, legends, denominations, and motto are impressed (which already had the central devices). The working hub had the preliminary finishing and then the working die had the date added with a logotype punch. From those working dies, coins were minted.

Two reverse Master Dies were used during this period and they are easy to distinguish as illustrated in the following table.

1856-1873 No Arrows Philadelphia Mint Half Dollars

Circulation Strike Coins Only (Proof struck coins have variances from this table.)

Reverse Master Die 1

1856-1865 No Motto
1866 WB-1, WB-2 With Motto



Chipped dentil over (AME)R(ICA)
Reverse has 145 short, pointed dentils
RI connected
Letters bold

Reverse Master Die 2

1866 WB-3 thru WB-8 With Motto
1867-1873 No Arrows With Motto



Complete dentils over (AME)R(ICA)
Reverse has 146 long, blunt dentils
RI separate
Letters thin and delicate

Type 1 working hub



1856-1860

Type 2 working hub



1858-1865

See next page



Defective
(O)F A(MERICA)
(see chart at right
and next page)

Date	Master Die 1	Defective (O)F			Master Die 2
		C	B	M	
1856	T1				
1857	T1				
1858	T1, T2	√			
1859	T1, T2	√	√		
1860	T1, T2	√	√	√	
1861	T2		√	√	
1862	T2		√		
1863	T2	√	√	√	
1864	T2		√	√	
1865	T2	√	√	√	
1866 WM	√	√			√
1867 WM					√
1868 WM					√
1869 WM					√
1870 WM					√
1871 WM					√
1872 WM					√
1873 NA WM					√

C=Complete serif on F
B=Broken serif on F
M=Missing serif on F

T1=Type 1 hub
T2=Type 2 hub

Reverse hubs. In 1858, the Type 2 reverse hub was introduced at the Philadelphia Mint. Both Type 1 and Type 2 major characteristics are displayed below for quick identification. (See summary table on previous page.)



Type 1 reverse hub (photo at left). Previously, the type 1 hub was used on Liberty Seated half dollars and is readily identified by the short base on the letter (HA)L(F) and the lack of a lump along the eagle's left leg. Caution: some coins from the Type 1 reverse hub have a random lump, different from that found on the Type 2, in almost the same position as the Type 2. Do not confuse them. (e.g., see WB-11 and WB-13.)



Type 2 reverse hub (photo at right). The Type 2 reverse is easily identified by the long base on the letter (HA)L(F) and a diagnostic lump along the eagle's left leg.

Different appearance of the Type 2 (O)F. The (O)F on the Type 2 hubbed half dollar working dies has three different appearances. The (O)F is hubbed onto the working dies but something happened likely with the working hub at the Mint to alter the appearances of the working dies. The images below depict the three different appearances of the (O)F from the same hub. It is worth noting these differences for die identification. Type 1 reverse (O)Fs have a complete serif. (See summary table on previous page.)

(O)F Variances on Type 2 Half Dollar Reverses



Complete serif
(serif repaired on the working hub?)



Broken serif



Missing serif

Naming Conventions: Obverse



The central obverse design includes the figure of the Goddess Liberty seated on a rock looking over her right (observer's left) shoulder. Liberty is wearing a Greek chiton, or loose fitting gown, with a clasp at her shoulder. Her neck, upper chest, and arms are exposed. Liberty's hand supports the Shield of the United States, a sign of national preparedness, which is wrapped in a

scroll inscribed with the word LIBERTY; her other hand grasps a pole surmounted by a pileus, a liberty cap emblematic of freedom. Thirteen stars, representing the thirteen original states, are spaced around the outer design from K-8 to K-4. As with all early silver coinage, the outermost design has equally spaced design elements called dentils.

Naming Conventions: Reverse



The central reverse design portrays an eagle with wings displayed bearing the Shield of the United States on its chest. The eagle is clutching an olive branch, which symbolizes peace, in its right (observer's left) claw and three arrows, symbolizing preparedness for war, in its left

(observer's right) claw. The denomination abbreviated HALF DOL. is below the eagle and the legend UNITED STATES OF AMERICA is above the eagle. Like the obverse, the outermost design has equally spaced design elements called dentils.

Date Grid Measurements

Unlike bust coinage, all Liberty Seated half dollars were struck from dies with most of the designs (e.g., Liberty and stars) impressed initially from a hub. Consequently, differentiating dies is difficult at best and the die marriage collector must rely on non-hubbed die diagnostics. For the obverse die, these diagnostics include die lines and cracks, die gouges, die maintenance remnants, and most importantly, date placement. Dates were emplaced into the working die with multi-figure and sometimes single digit logotypes and, therefore, obverse dies may have noticeable die placement variations. Mastering a technique to define a date placement will facilitate a quick method of identifying possible die varieties for a given date placement, especially when no other diagnostics are evident. Here is such a method: the date grid measurement (e.g., M3.5, .030”).

The date grid is based on the position of the date's 1 and consists of two components: the position of the right vertical edge of the 1 with relation to Liberty's shield lines and, secondly, the distance between the top of the 1 and the base of the rock. A stereomicroscope with a linear scale on a reticule or an optical comparator is ideal for viewing and measuring the date placement. The photograph below symbolically depicts a microscope's reticle (vertical line) aligned in the correct measuring position. The shield lines are assigned an alphanumeric system whereby, the three center sets of shield lines are L (left), M, (middle), and R (right) and the individual shield lines are 1, 2, 3 (4, 5 are virtual shield lines equidistant in the large space between the shield line sets). The date placement is the real or virtual shield line (including a decimal increment between shield lines) where the reticle (aligned adjacent to the right edge of the 1) intersects the bottom inside shield edge. Increments of .5 signify an interpolation between two lines or virtual lines such that M2.5 is the seam between vertical stripes 2 and 3 while M3.5 is the right edge of vertical stripe 3, as below. Furthermore, the distance in inches between the top of the 1 and the bottom edge of the rock is the second component of the date grid. The example below is of an 1840 half dollar with a date grid of M3.5, .030”.



Be aware that date grid is not and is not meant to be an absolute identifier for a specific obverse die. It is merely a tool for identifying a numeric date position for possible obverse die identification. In my experience, two experienced numismatists with the same equipment on the same coin may produce two slightly different date grids. Measuring a date grid is not absolute and I do not use it to positively identify a specific obverse die. Many half dollars of different dies have the same date grid and, additionally, die states affect a date grid's measurement.

As a general rule, severe die wear or die polishing will cause the date distance measurement to be greater and the date grid measurement to be further to the left (e.g., an early die state coin with a date grid measurement of M3.5, .030" may measure M3, .032" in a later die state).

Identifying known die marriages by the date grid allows comparison of an unknown die variety's date placement, thereby narrowing down an unidentified obverse die to a limited number of known varieties. In my experience, many date placements are similar for a given date but different enough to allow minute differentiation. The list below represents the date grid measurements for hypothetical half dollars of a certain date:

Obverse	Date grid
1	M3, .008"
2	M3, .025"
3	M3.5, .028"
4	M4, .022"
5	M4.5, .027"

When encountering an unidentified half dollar, measure the date grid and compare it to the list of known obverse dies for the same date. You should be able to identify it to one or two of the obverse dies. In my photo example, the obverse die is closest to obverse 3. Further study of other die diagnostics may confirm the identification.

Die states affect date grid measurements. Late die states with heavily polished or worn dies will have different measurements than the same die of an earlier dies state. For example, the distance between the top of the 1 and the rock may be greater on the polished die than the non-polished die. Consider this effect when comparing date grid measurements.

The date grid is a useful measurement to aid in identifying Liberty Seated half dollar obverse dies. Collectors of other Liberty Seated denominations utilize date placements in relation to dentils but I believe this method is more accurate and useful for half dollars.

Edge Reeding and Collars

Often overlooked, the edge of a Liberty Seated half dollar contains reeds. Reeds were implanted with a collar, the coin's third die, and were meant to deter nefarious efforts to clandestinely remove silver from the edges of coins for profit. With the exception of some error coins, all Liberty Seated half dollars have reeds.

Reeded collars were heavy steel plates with a bore the size of the minted coin. A blank planchet was placed in the bore and reeds were raised on the edge of the coin at the same time the coin's designs were raised by the obverse and reverse dies.

Reeding on a coin was not standardized as collars were locally procured at Branch Mints or made at the Philadelphia Mint. This practice resulted in variances in numbers and widths of reeds on half dollar edges which is useful information in counterfeit detection, authentication, and determining die emission sequences. Many collars can be distinguished by the number of reeds, reeding shape (tapered, fluted, or squared), telltale vertical imperfections between reeds, horizontal and vertical cracks in collars, and double reeds (i.e., two reeds very close to each other). With time and effort by an interested numismatist, an extensive study could be made of reeding.

The following table itemizes reed counts for Philadelphia Mint Liberty Seated half dollars dated 1856 to 1873 No Arrows. The 145 reed collar is the most commonly used during this time period.

1856-1873 No Arrows Circulation Strike Half Dollar Diameters										
<i>Date</i>	143	144	145	146	147	148	150	151	152	153
1856			√	√						
1857			√	√						
1858			√	√						
1859			√	√						
1860		√	√	√						
1861	√		√	√			√		√	√
1862								√	√	√
1863		√						√	√	√
1864										√
1865		√	√	√			√			√
1866			√				√		√	√
1867		√					√			√
1868			√							√
1869			√	√						√
1870			√	√						√
1871			√							
1872			√							
1873 No Arrows		√	√							

Note: Proof strike coins of this period typically have 152 reeds and are not included in the table above. Some circulation strike coins also have the 152 reed count.

Counting Reeds

Periodically I have been asked that if determining a reed count is so important, then how do you easily count reeds? Randy Wiley and I have successfully been using a simple technique for years; with it, I have counted reeds on well over 2,000 Liberty Seated half dollars and many other denominations.

Counting reeds is actually quite simple if you understand the technique and have a few simple tools. Simply remove the reflector from an inexpensive flashlight, place the coin into the reflector under your stereo microscope, and slowly rotate the reflector with the coin while viewing the in-focus edge (i.e., reeds) through the microscope (see image at right). Start at an obvious flaw (as indicated in the image - all coins have them) and count (aloud is best so that you can ignore distractions) the reeds using the reticule of your scope to keep track of your position; stop for breathers at easily referenced places (e.g., nicks, lint, cracks in the collar, etc.). Continue until you get to the starting reed. You may have to initially adjust the coin in the reflector to keep it in focus for the entire counting session. With practice, you can easily and accurately count the reeds on a coin in about 2-3 minutes. Be careful with the reflector surfaces; they scratch easily and you may end up replacing it more often than you like. One more thing, as you can probably tell, you can also photograph the edge of the coin with this technique.



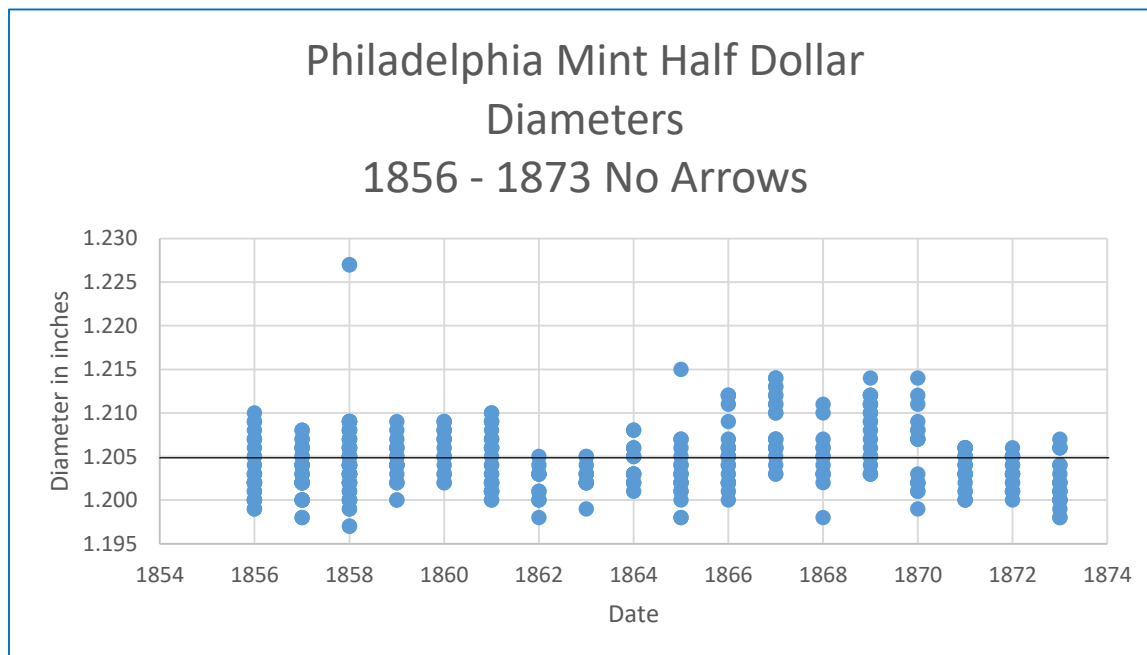
Emission Sequence

The die marriages of all dates are listed in ascending WB-X order per an estimated die emission sequence order; the first number is the first minted die marriage to the highest number being the last (usually the transitional die with the preceding or subsequent years). Factors considered to estimate this die emission sequence include die wear, die abrasions, die defects, collar groupings, and use of mintmark sizes (for the Branch Mint coins in the series).

Philadelphia Mint Half Dollar Diameters

The standard size of a half dollar diameter has been since 1839, and still is, 1.205 inches. I have measured the diameter of over 2,000 half dollars and only a few have that exact diameter. Since the diameter of a coin is dictated by the diameter of the opening in the collar and collars were procured through various methods (local, procured from the Philadelphia Mint, made in-house), there is no wonder that slight variations in half dollar sizes can be found.

The following diagram depicts summary information for the diameters of 424 Liberty Seated half dollars struck at the Philadelphia Mint. As you can see, values vary considerably about the standard size. The smallest diameter was in 1858 with the largest in 1865. 1861 has a range centered on the standard. The very large diameter measurement in 1858 is a partial slanted collar error.



Rarity Ratings

Included with the description of each die marriage is an estimated rarity rating. These ratings are based on the Sheldon Rarity Scale as depicted in the following table. All rarity estimates are my own and are based on my observations and, in some instances, educated guesses. Few varieties are rated R-6 or above, few are rated R-2, and none are R-1. I will be the first to admit that it will literally take years to establish more accurate rarity ratings for each variety but I believe most will range as listed in the R-3 to R-4 range.

The *rarity rating* I assigned to each die marriage is a single number, which *includes coins of all grades*. In my experience, listing by-grade

rarity values can lead to misrepresenting the rarity of a die marriage by misquoting grade rarities rather than overall rarities. Naturally, some grades are rarer than others, specifically uncirculated coins, but I will leave that study and accompanying condition census listings to others.

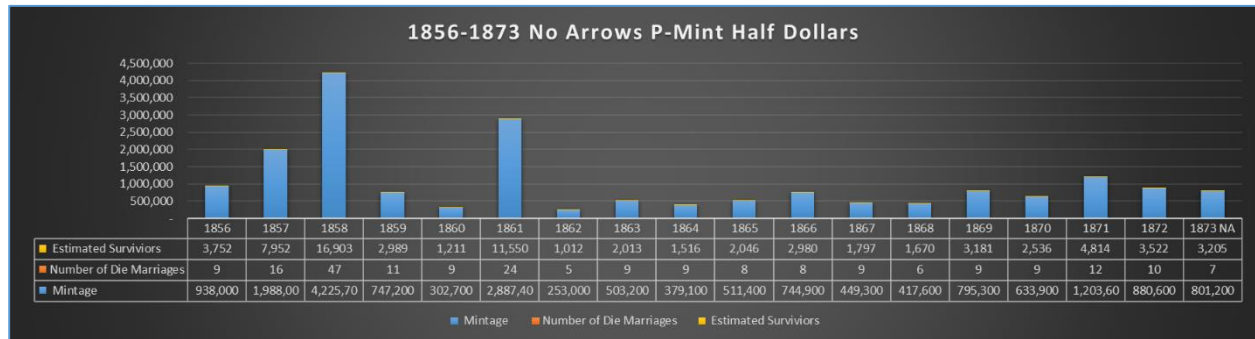
Care must be exercised when trying to relate a die marriage's worth to rarity. There is no direct correlation between value and rarity and trying to correlate the two would produce misleading results. Some die marriages are rare but not noteworthy enough to gain the prominence enjoyed by some more popular rarities. Rarity is only one factor in determining market value.

Rarity Rating	Estimated number of known pieces
R-8	1 - 3
R-7	4 - 12
R-6	13 - 30
R-5	31 - 75
R-4	76 - 200
R-3	201 - 500
R-2	501 - 1,250
R-1	1,251 or more

If you sum the upper estimates of the known pieces for all the die marriages listed in this Register, the total population of Philadelphia Liberty Seated half dollars from 1856 to 1873 No Arrows is approximately 105,000. I believe the actual number of survivors is closer to approximately 75,000 as shown by date in the table on next page. This number equates to less than $\frac{1}{2}$ of 1% of the original mintage, which is within the generally acceptable attrition estimates.

Miscellaneous Information

Philadelphia Mint half dollars. The figure below depicts the mintages, the number of die marriages found, and my estimate of the number per date still extant for the Philadelphia Mint half dollars from 1856 to 1873 No Arrows.



As shown in the graph, the half dollar mintages (in blue) varied dramatically from year to year ranging from approximately 253 thousand to 4.2 million, with early years having the greatest mintage.

Circulating silver coinage. During most of the 1840s and for the first time in the nation's history, the U.S. had a fairly ample supply of circulating coinage. This situation abruptly changed with the discovery of gold in California in 1848. Gold poured into the nation's economy thereby upsetting the gold to silver market ratio. By 1851, the rising value of silver rose to a point where a silver coin's silver content was worth more than the face value (e.g., two silver half dollars were worth \$1.03½ in gold). Consequently, large numbers of U.S. silver coins, mainly quarters and half dollars, were pulled from circulation, hoarded, melted, and/or exported for profit. Coinage with the exception of heavily worn U.S. and Mexican coins, 3-cent pieces, and gold dollars essentially did not circulate. With Congress' inactivity to resolve the worsening chaotic retail trade conditions, the U.S. Mints, which were operating at a net loss in producing silver coins, reduced their silver coinage output because it cost more than their face value to produce and, if released, they quickly disappeared from commerce. Consequently, for a few years beginning in 1851, the half dollar mintage was miniscule.

This situation changed for the better in 1853 with the Mint Act of 1853 but worsened again with the onset of the American Civil War (1861-1865). Mid-1850s half dollar mintage was high (see graph above) but by the middle of 1862, when silver coinage had been slowly disappearing from circulation since 1860, was now totally absent from daily commerce. Most of it was hoarded, legally exported to Europe to pay for the Union's War supplies or to Canada, West Indies, and South America for circulating coinage, or melted for bullion or silverware. This situation remained as such until the mid-late 1870s. Late 1860s and early 1870s half dollar mintage are low primarily because, once minted, did not circulate. By 1873, large amounts of coinage were minted but these generally did not circulate in the Eastern or South U.S. This resulted in the "Crime of 1873," but that came after the 1873 No Arrows coinage.

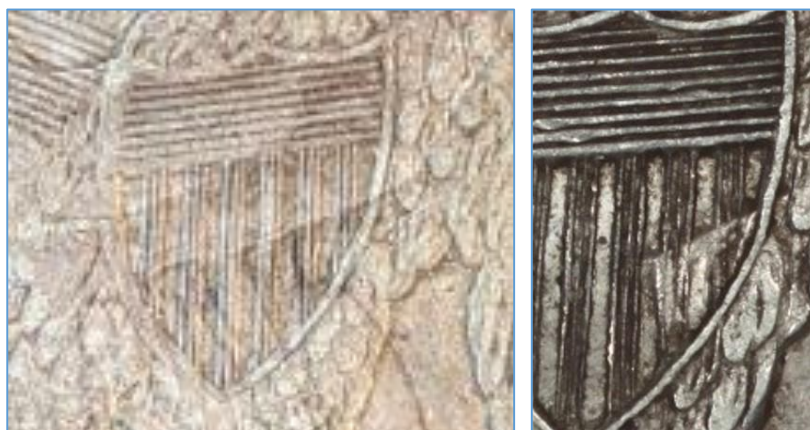
Guatemala Hoard Coins. Walter Breen¹ discusses a large cache of Liberty Seated half dollars, known as the Guatemala Hoard (for the location of the find), and it is worth repeating here: “about 1956 unidentified individuals discovered an immense hoard in Guatemala, reflecting mass wartime (i.e., Civil War) shipments of coins as bullion. The Guatemala hoard coins are readily recognizable. They are dated between 1859 and 1865 Philadelphia, and between 1860 and 1865-S, most often 1861-1862 from either mint, ranging from VF to nearly mint state, and cleaned with baking soda or some other abrasive. There were many hundreds of each date, possibly a couple of thousand of 1861-1862. As there were not later date coins in the part of the hoard I saw (at New Netherlands Coin Co., 1956), most likely the hoard was buried about 1865 or early 1866. Either there were no 1866-S No Motto coins, or they were fished out beforehand; but I have seen none matching the hoard coins.”

Don Taxay² also mentions the Guatemala Hoard with minor differences in the included coinage dates: "Note: "p" mint half dollars ca. 1859-1865 and "S" mint half dollars ca. 1861-65 are now relatively common in scrubbed unc. due to a large Guatemala find."

Whatever the exact dates and mints of the coinage, high circulated and mint state grade cleaned coins of the early 1860s can be found today.

With Motto. The Coinage Act of April 22, 1864, allowed the Director of the Mint, with approval of the Secretary of Treasury, to work the shape, motto, and devices of coins. After minting of the two cent coin on which the motto “IN GOD WE TRUST” was portrayed, an Act of Congress, passed on March 3, 1865, allowed the Mint Director, with the Secretary's approval, to place the phrase on all gold and silver coins. Consequently, the motto “IN GOD WE TRUST” was added in a scroll on the reverse above the eagle’s head of the half dollar (et al.) in 1866.

Clash in reverse shield. Quite often I see references or get inquiries into a cud in the reverse shield’s lower right on Liberty Seated half dollars. Depicted at the lower right, this anomaly is actually a clash from the obverse die (the coin’s field between Liberty’s leg and elbow – see overlay below left) and not a cud. Internal cuds on Liberty Seated half dollars are extremely rare and this die clash mark should not be confused with them.



¹ Breen, Walter. Walter Breen’s Complete Encyclopedia of US and Colonial Coins. F.C.I Press, Inc. and Doubleday, 1988.

² Taxay, Don. The Comprehensive Catalog and Encyclopedia of U.S. Coins. New York: Scott Publishing Company, 1975.

How To Attribute Your Liberty Seated Half Dollar

Armed with the introductory and the die marriage information contained in this Register, most Philadelphia Mint Liberty Seated half dollars can be readily attributed to a correct variety nomenclature and WB- number. Date close-up images are displayed at top of each die marriage page because they are position dependent. Additional die diagnostic information and images are contained for the obverse and reverse dies.

At a coin show, you will most likely be able to scrutinize a prospective purchase to determine a correct die marriage. Additionally, with advances in the internet, high speed data downloads, and digital imaging technology, many auction house depict excellent high quality images on their website for upcoming auctions.

With a half dollar of an unknown variety in hand, proceed through the following steps.

- Obtain or estimate the date grid location. Compare this measurement to the date grid table contained for the coin's date. This measurement will provide a few obverse die possibilities and you can then check the mintmark position.
- Refer your possibilities to each variety description and check the die diagnostics for your coin against those listed for each die marriage.

With a close-up image of half dollar of an unknown variety on the computer screen (e.g., from an auction website), proceed through the following steps.

- Estimate the date position of the 1 on the computer screen by using a straight edge such as a piece of page. Compare this measurement to the date grid table contained for the coin's date. This measurement will provide a few obverse die possibilities and you can then check the mintmark position.
- Refer your possibilities to each variety description and check the die diagnostics for your coin against those listed for each die marriage.

Both techniques work well. I have personally tested attribution techniques with a coin either in hand or over the internet with the digital archives of a few well known auctions houses. In over 90 per cent of the coins or images checked, I was able to attribute the variety for a high grade (VF+) Liberty Seated half dollar. I hope you have similar successes.

**The Philadelphia Mint
Liberty Seated Half Dollar
Die Marriages
1856 to 1873 No Arrows**

1856

This date is the first year of the new weight standard and without arrows at the date. It is an unappreciated date and seemingly seldom available in problem free condition. 1856 has enough to interest collectors such as rare and scarce repunched date die marriages as well as a very rare die state.

With two reed counts, nine die marriages are known for 1856 circulation strike half dollars as depicted in the tables below.

Mintage	Number of 1856 Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
938,000	9	9	9	2 (145, 146)

Notched 1 in Date. All 1856 half dollars have a notch in the lower right base of the 1. This includes all the obverse dies used on all 1856 half dollars from all mints: Philadelphia, New Orleans, and San Francisco. This feature is noticeable even on low grade coins and also on \$10G and \$20G coins of 1856 which used the same date punch.



In background, the dates and mintmarks for the Liberty Seated series were punched by hand or later, by a large screw, into the working dies at Philadelphia (hence, the date and mintmark placement variations). The dates were punched using a date gangpunch consisting of between two and four digits of the desired date on a punch (There has been some controversy over how many digits were on a date gangpunch but that is a subject of debate.). The number of individual date gangpunches available for each year's use is unknown. Nevertheless, the punch used for 1856 had a defect in the shape of a notch in the lower right base of the 1 (as shown in the photograph at left of an 1856-P WB-6, Repunched 1). Logically, a notch on the date punch should be visibly apparent. Perhaps the notch was intentionally affected as a signature of a mint employee. We will most likely never know but notched punches

are known on another Liberty Seated half dollar date (one die for 1848-O) and on other series: early Liberty Seated half dimes (see *Gobrecht Journal*, Volume 27, Number 80, pages 39-41), 1820 bust dimes, and early capped bust half dollars for instance.

Here is a table of the number of 1856 obverse dies with and without the notch.

Half Dollar Obverse Dies	1856 – P	1856 – O	1856 - S
Number dies with notch	9	12	5
Number dies without notch	None	None	None

Date style. In 1856, the Mint changed the style of the date³. The date was slanted in 1855 as shown below and the 5 is upright on 1856 half dollars.

1855	1856	1857
		
Slanted 55	Upright 5 6 slightly tilted to the right	Upright digits

Notes.

1. The slanted date style is not currently known for 1856 half dollars. Circumstances exist that one could exist but I have been searching for one for decades without success. I suspect it may exist and, if so, would be extremely rare.
2. On some 1856 half dollars, the lower loop of the 5 appears different – sometimes called open versus closed 5s. I believe this is due to the force used to impress the date into the working dies. Heavier impressions will result in closed while lighter impressions will result in open 5. These are not separate date styles or logotypes as seen below.

Different style of the 5. Close scrutiny of the 5s in 1856 and 1857 reveals a slightly different style. The images below (in order) depict the digit 5 in 1856, overlayed images of 1857 over 1856, and the 1857. It is very clear from the overlay that the digits have differences. Notably, the flag of the 5 is larger and the loop of the 5 is more open on the 1857. Additionally, the outside right loop of the 5 is heavier on the 1857 and the lower loop is thinner.



³ For excellent reading and analyses on dates of this era, see:

Krueger, Craig and John D. Dannreuther, "A New Slant of Coins of 1850-56," *The Numismatist* June 2002: 637-642.

1856 Date Positions.

Most date positions are placed to the left with only two considered centered (M1, M2 alignment).

1856 date grid quick reference table

Obverse die date grid	Die Marriage
L4.5, .010"	WB-9
L4.5, .015"	WB-7
L5, .009"	WB-1
L5, .010"	WB-2
L5, .016"	WB-3
L5.5, .010"	WB-6
L5.5, .022"	WB-5
M1, .024"	WB-8
M2, .010"	WB-4

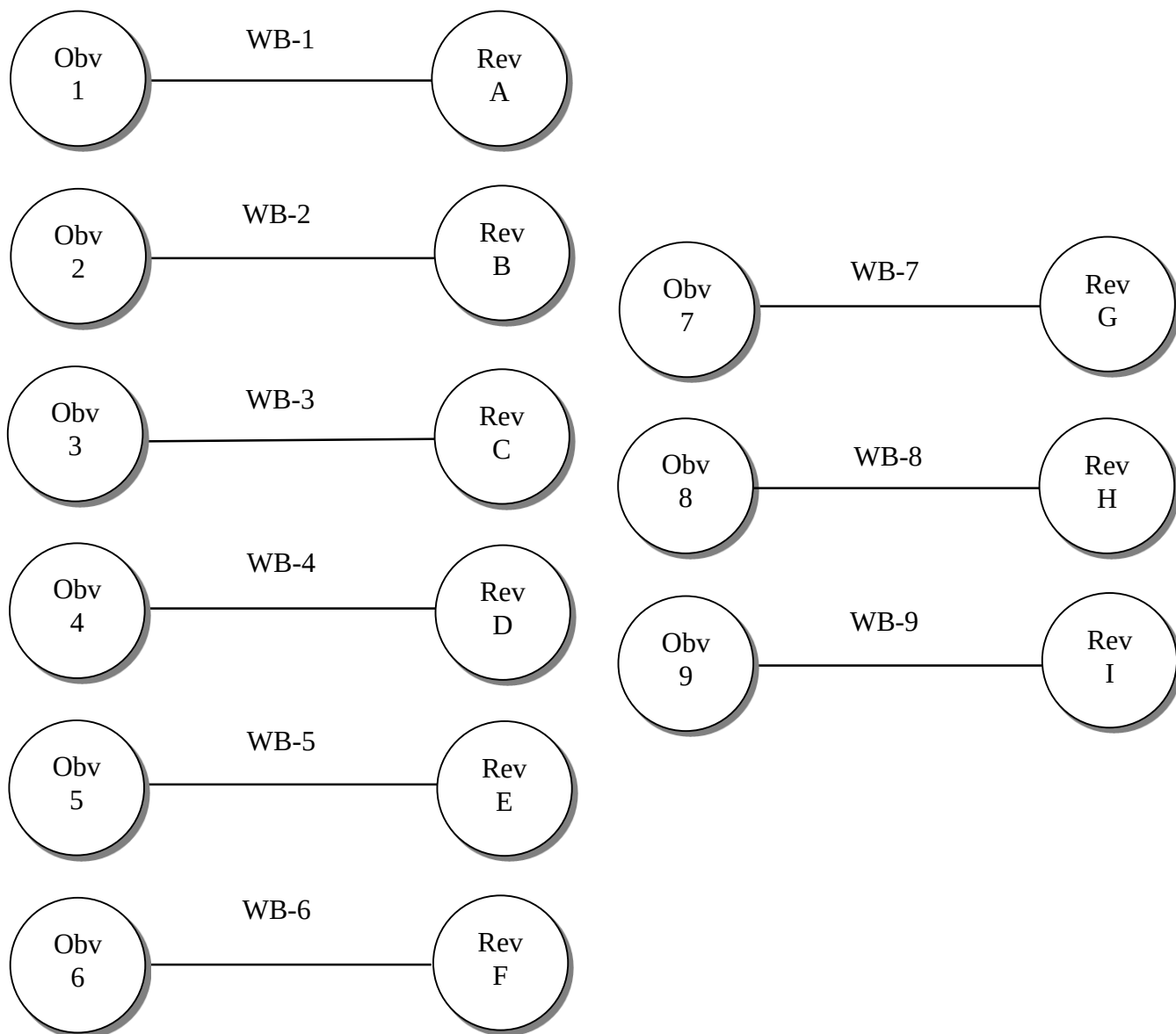
1856 Die states. Many 1856 dies were not completely finished during die preparation. The field below the leaves is often unfinished showing raised rough metal. Also, many die were clashed during the minting process with evidence of clashing on both the obverse and reverse dies.

1856 Half Dollar Date Positions

 Obverse 1, WB-1 Spiked 1	 Obverse 2, WB-2	 Obverse 3, WB-3
 Obverse 4, WB-4	 Obverse 5, WB-5	 Obverse 6, WB-6 Repunched 1
 Obverse 7, WB-7 Dramatically Repunched 6	 Obverse 8, WB-8 Very Low Date	 Obverse 9, WB-9 56 Repunched North

1856 Half Dollar Obverse and Reverse die identification keys		No usable die diagnostics	Reverse die lines thru MER and connecting wing and olive leaf	Crisscrossed die lines between the eagle's left wing and olive leaves	Small die line above the (A)M(ERICA)	No usable die diagnostics	Prominent lump from the upper serif of the (STA)T(ES)	Many die lines thru the legend especially at STA(TES) and AMERICA	Die lines from dentils thru (STA)TES OF and shield	Prominent diagonal (NE to SW) die lines in the reverse shield
		A	B	C	D	E	F	G	H	I
Spiked 1, tine off upper right of 1	1	WB-1								
Possible digit in rock support above 56	2		WB-2							
Weak vertical die file lines in field to the right of date	3			WB-3						
Date right, LDS: saw tooth cuds obverse	4				WB-4					
Low date	5					WB-5				
Repunched 1	6						WB-6			
First 6 to right of 6	7							WB-7		
Very low date	8								WB-8	
56 repunched North	9									WB-9

1856 Half Dollar Die Linkage Diagram



1856 WB-1, Spiked 1

Obverse 1



- High date with spiked 1 (tine from upper right across from serif) (photo above and below). This tine was likely due to the slip of the engraver's tool during die preparation.



- MDS-LDS: die cracks at K-6 along base of date to K-9 (See enhanced die crack diagram on the next page.)
- MDS only: clash lump on inside of Liberty's right forearm below wrist

Reverse A

- No usable die diagnostics seen



- Rim cud at K-11 (photo above) seen only on high grade examples of this die
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5, .009"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse: - Full; Reverse – Full to weak	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-103.		Version ISA.CS	

1856
WB-1, Spiked 1



Obverse 1 (enhanced die cracks in photo at right)



Reverse A

1856 WB-2

Obverse 2



- High date (photo)

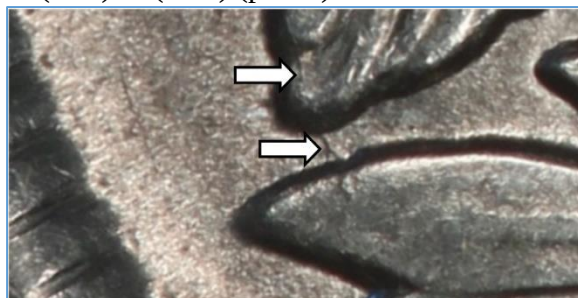


- Possible misplaced date punch in rock support above the space between 56 (photo)
- MDS-LDS: die cracks at stars 10-13 (See enhanced die crack diagram on next page.)
- LDS: weak dentils
- Weak stars 12-13 seen on some examples of this die marriage

Reverse B



- EDS-MDS only: two die lines thru (AM)ER(ICA) (photo)



- LDS only: die line at tip of eagle's left wing to and onto olive leaf #3 (photo)
- LDS: worn dentils and weak letters in the legend especially AMERICA
- Clashed multiple times

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5, .010"	145 reeds	Typical diameter = 1.210"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: see narratives	
Grade of coin depicted: MS64, AU58, PCGS MS60		Coins from the Randy Wiley Collection and Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1856
WB-2**



Obverse 2 (enhanced die cracks in photo at right)



Reverse B

1856 WB-3

Obverse 3



- Centered date (photo)
- Tiny tine from upper right across from serif of the 1



- Diagonal die lines thru date, prominently thru 56 and in field right of date (photo)
- LDS: light clash under Liberty's elbow
- Die crack to left of date (See enhanced die crack diagram on the next page.)

Reverse C

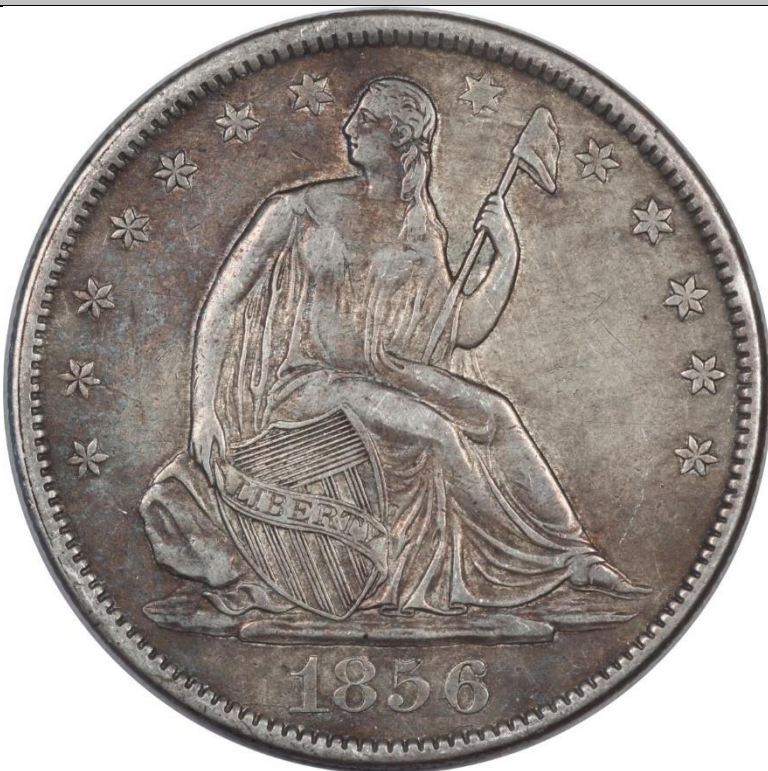


- All die states: crisscrossed die lines between the eagle's left wing and olive leaves (photo)
- EDS: unfinished under the eagle's left wing and under olive (photo)
- MDS-LDS: die cracks thru legend (See enhanced die crack diagram on the next page.)
- MDS-LDS: clash inside lower right shield

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5, .016"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: AU58 LDS: XF45		EDS coin from the Randy Wiley Collection LDS coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1856
WB-3



Obverse 3 (enhanced die cracks in photo at right)



Reverse C (enhanced die cracks in photo at right)

1856 WB-4, LDS Sawtooth Cuds Obverse			
<u>Obverse 4</u>  • Date high and right, positioned the farthest right for this date (photo) • LDS: two cuds in the shape of saw teeth at rim thru dentils by stars 1-3; die cracks into field by dentils and stars 1-3 (photo at right)   • Die line from pole near star 8 to rim above Liberty's head (photo above) • Heavy clash in field to the right of drapery • (See enhanced die crack diagram on the next page.)		<u>Reverse D</u>  • Die diagnostics are lacking for this reverse die but there is a small die line above the (A)M(ERICA) near the dentils (photo). • Weak clash below the eagle's right wing • Unfinished under the olive leaves	
This is the only use of this obverse die and only use of this reverse die. After decades of searching, I have owned only two and seen less than half dozen examples of the sawtooth cuds LDS. Others have been searching with little or no success.			
Date grid: M2, .010"	145 reeds	Typical diameter = 1.202"	LDS Rarity - 7
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.		Version ISA.CS	

1856
WB-4, LDS Sawtooth Cuds Obverse



Obverse 4 (enhanced die cracks in photo at right)



Reverse D

1856 WB-5

Obverse 5



- Low date (photo). Very high grade coins (AU+ to MS) have a weak lump near the top of the upright of the 1.
- There are two very weak die lines on this die that will only be visible on mid to high grade coins. See below.



- Weak die lines from Liberty's heel into the rock support (photo)



- Weak die line on the rock support above (18)56 (photo)

Reverse E

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5.5, .022"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-5



Obverse 5



Reverse E

1856 WB-6, Repunched 1

Obverse 6



- High date (photo). The serif of an earlier punched 1 is protruding from the left side of the prominent 1.



- Close up of the base of the 1 protruding from the left upright of the prominent 1 (photo)
- LDS: heavy die clash in Liberty's drapery

Reverse F



- Prominent lump from the upper serif of the (STA)T(ES) (photo)
- Several very weak die lines diagonally from the dentils thru STA(TES). These will be visible only high grade examples of this die marriage.
- MDS-LDS only: clash in shield lower right.

This is the only use of this obverse die and only use of this reverse die.

David Templin discovered this variety. In our 1993 book *The Complete Guide to Liberty Seated Half Dollars*, we listed this variety as rarity "R-8?" merely because Randy and I became aware of its existence only just before the book's publication. Many more have since been discovered and R-4 is more realistic.

Date grid: L5.5, .010"	145 reeds	Typical diameter = 1.199"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU55 CAC		Coins from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1856
WB-6, Repunched 1



Obverse 6



Reverse F

1856 WB-7, Dramatically Repunched 6			
<u>Obverse 7</u>  - Date far left (photo) with a prominent early 6 to the right of the final 6 (photo below)  - Close up of repunched 6 (photo)  - Arching die line in Liberty's gown adjacent to her forearm (photo)		<u>Reverse G</u>  - Many die lines thru the legend especially at STA(TES) and AMERICA (photo and see below)  - Most prominent die lines are above and thru (UNI)TES S(TATES) (photo)	
This is the only use of this obverse die and only use of this reverse die. After many years of searching (Dick found it in 2002), I, and others, have been unable to locate one of these. I look at every advertised 1856 half dollar and every 1856 at coin shows and online and cannot locate one. I believe this variety is ultra-rare. To date, this example, as known to me, is unique and I am hoping a few others will be found by lucky searchers.			
Date grid: L4.5, .015"	146 reeds	Typical diameter = 1.204"	Rarity – 8?
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Dick Osburn Collection	
Cross reference: WB-unlisted. Gobrecht Journal Volume 29, Issue 86, page 10.		Version ISA.CS	

1856
WB-7, Dramatically Repunched 6



Obverse 7



Reverse G

1856 WB-8, Very Low Date

Obverse 8



- Very low date (photo). Note that the lower left base of the 1 almost touches the dentil below (see close up photo below). This obverse has the lowest date in 1856.



- Clash in Liberty's drapery and in the field to the right of the drapery

Reverse H



- Die lines from dentils thru (STA)TES OF (photo)



- Diagonal (NW to SE) die lines in shield (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1, .024"	Unknown reads	Typical diameter = Unknown	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: ANACS SWH EF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1856
WB-8, Very Low Date

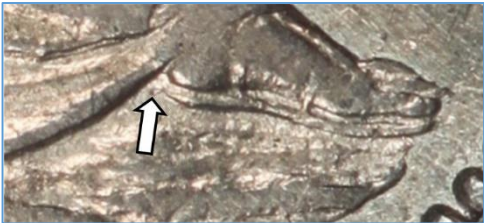


Obverse 8



Reverse H

1856
WB-9, 56 Repunched North

<u>Obverse 9</u>	<u>Reverse I</u>
 • Date far left and high (photo)  • (18)56 repunched north (photo). The 6 repunching is plainly visible below the final 6 while the 5 has minor repunching along the lower loop of the 5.  • Small lump behind Liberty's heel (photo)	 • Prominent diagonal (NE to SW) die lines in the reverse shield (photo)  • Faint die lines under the eagle's left wing (photo)

This is the only use of this obverse die and only use of this reverse die.			
Date grid: L4.5, .010"	145 reeds	Typical diameter = 1.203"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1856
WB-9, 56 Repunched North



Obverse 9



Reverse I

1857

This date is relatively easy to find even in problem free condition but finding all the die marriages will be a challenge. With twice the mintage of 1856 and less than half that of 1858, sixteen die marriages with repunched dates and digits in the dentils and rock support are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
1,988,000	16	14	15	² (145, 146)

1857 date grid quick reference table

Obverse die date grid	Die Marriage
M2.5, .018"	WB-3
M2.5, .018"	WB-8
M2.5, .014"	WB-14
M3, .011"	WB-10
M3, .013"	WB-15
M3.5, .010"	WB-6
M3.5, .012"	WB-16
M3.5, .012"	WB-5
M3.5, .014"	WB-11
M3.5, .014"	WB-4
M3.5, .016"	WB-7
M4, .014"	WB-1
M4, .016"	WB-2
M4, .016"	WB-9
R1.5, .012"	WB-12
R1.5, .012"	WB-13

Connected 18(57). There may have been two different date logotype punches used this year: the first has the 18(57) connected at their closest point (photo below left) and second punch has the 18(57) disconnected. Coins with both punches appear frequently. These two punches could possibly be the same logotype punch and the connecting line between the 18 may only show on dies with heavily impressed dates. Additional study is needed.



18(57) Connected

18(57) Not Connected

1857 Half Dollar Die Characteristics. All 1857 half dollars are from reverse Master Die 1.

Unfinished dies. Many 1857 half dollar dies shows evidence of unfinished die work before and during use. Many have unfinished areas below Liberty's chin, below the olive leaves, and below the arrowheads. Also, various weak and strong lines show between the dentils on both dies. These are all common.

(Un)Cracked dies. For 1857 half dollar dies, weak die cracks are uncommon and severe die cracks are rare. With a mintage of 1,988,000 and 14/15 obverse and reverse dies known, that averages out to about 142,000 coins struck per die pair. Historically, that is a high number and more cracked including severely cracked dies may be known.

Half Dollar die clashes on 1857 Flying Eagle cents. Listed here because it likely involves an 1857 half dollar obverse die, some 1857 Flying Eagle small cents exhibit clash marks from a Liberty Seated half dollar. Known as a multidenominational die clash variety and catalogued as a Snow-9⁴ (FS-402 S-9, FS-003), an 1857 cent's obverse has the clash marks of a Liberty Seated half dollar obverse die. The opposite (i.e., 1857 half dollar with clash marks of a cent die) is not known. The origin of these is uncertain with theories ranging from clandestine mint activity by a nightwatchman to accidental die changes. Raw and certified and graded examples of the Snow-9 can be found in almost all grades with some searching and at a currently reasonable price.

Snow-9 cents are readily identified by the half dollar right arm clash above the eagle's head, Liberty's left leg clashed thru the letters (AM)ERICA, and Liberty's gown clashes from the eagle's right claw and beak to rims. Other obvious clash marks are visible on high grade coins.

Even low grade coins plainly depict these die clashes (see annotated VG raw coin image at right).



1857 Flying Eagle 1¢ obverse
(Snow-9) clashed with Liberty
Seated half dollar obverse die

⁴ Snow, Richard E. The Flying Eagle and Indian Cent Attribution Guide, 3rd Edition, Volume 1, 1856 – 1877. Atlanta, GA: Whitman Publishing, 2017.

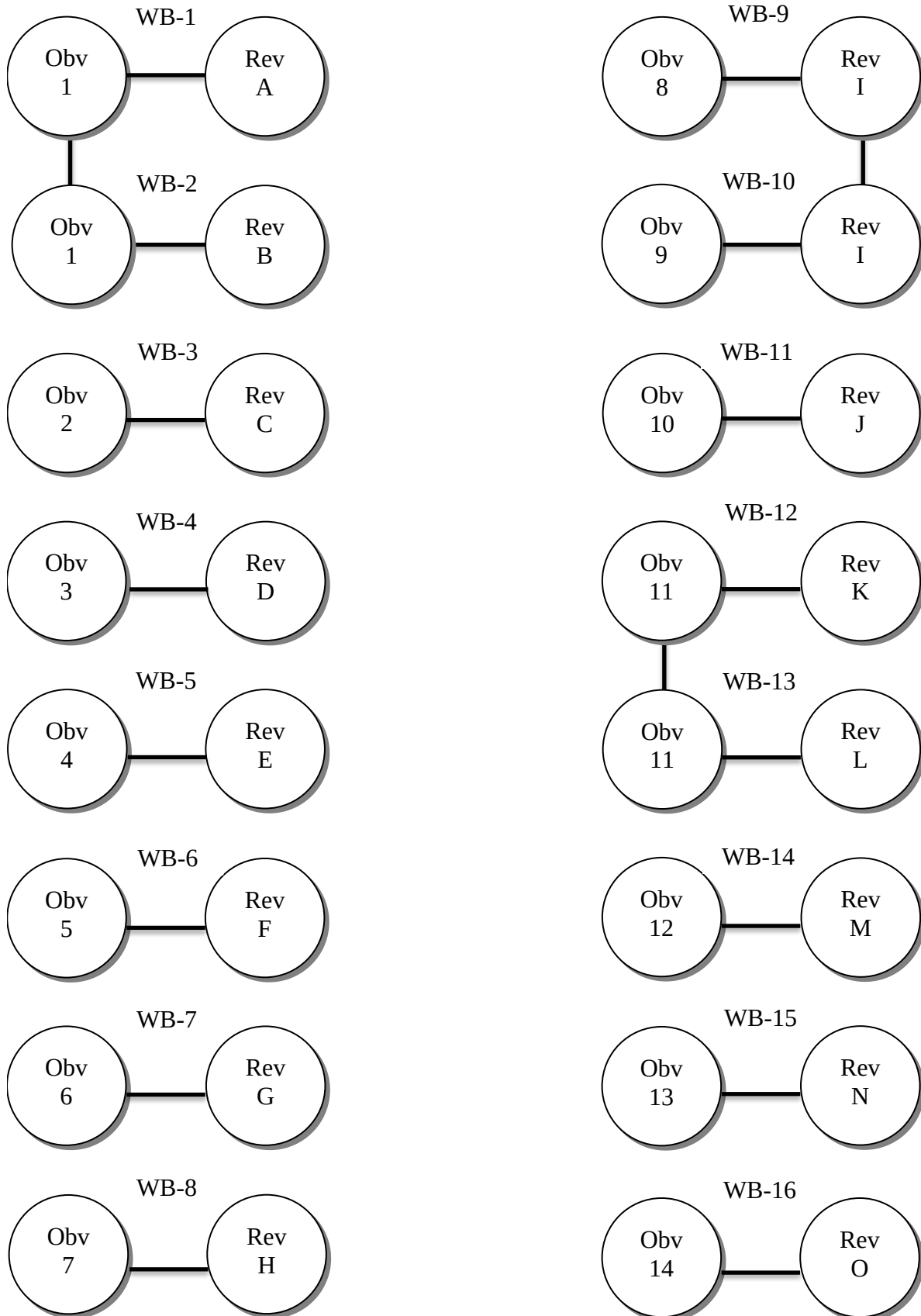
1857 Half Dollar Date Positions

		
Obverse 1, WB-1, WB-2 7 in Rock Support	Obverse 2, WB-3 7 in Rock Support	Obverse 3, WB-4 57 in Rock Support
		
Obverse 4, WB-5 1857 in Rock Support	Obverse 5, WB-6	Obverse 6, WB-7
		
Obverse 7, WB-8 Repunched 1, 8 in Dentils	Obverse 8, WB-9	Obverse 9, WB-10
		
Obverse 10, WB-11	Obverse 11, WB-12, WB-13 1 Repunched North	Obverse 12, WB-14
 Obverse 13, WB-15 8 in Dentils	 Obverse 14, WB-16	

1857 Half Dollar Obverse and Reverse die identification keys		Lump on eagle's leg	Die line to (S)T(ATES)	Reverse rotated	Die line thru H(ALF)	Die lines in field under left wing	Crud under arrowheads	Crud at bottom of shield	Die lines thru claw
		A	B	C	D	E	F	G	H
7 from Rock Support	1	WB-1	WB-2						
57 in Rock Support	2			WB-3					
1857 in Rock Support	3				WB-4				
Lump in field near Liberty's hand	4					WB-5			
No usable die diagnostics	5						WB-6		
Lumps above scroll end	6							WB-7	
8 in Dentils	7								WB-8

1857 Half Dollar Obverse and Reverse die identification keys		Die line on (U)N(ITED)	Double die line from (U)N(ITED)	Gouges in left wing	No usable die diagnostics	Many parallel die lines along the eagle's left leg into the field	Horizontal wavy lines in the eagle's left wing to the left of the shield	Diagonal (NE to SW) die lines under the eagle's left wing
		I	J	K	L	M	N	O
Die line from foot	8	WB-9						
Unfinished under Liberty's chin with vertical die lines	9	WB-10						
No usable die diagnostics	10		WB-11					
1 Repunched North and large lump on left leg	11			WB-12	WB-13			
Date slants down to right	12					WB-14		
8 in Dentils	13						WB-15	
Tine on 1	14							WB-16

1857 Half Dollar Die Linkage Diagram

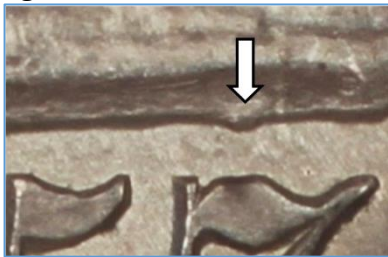


1857 WB-1, 7 in Rock Support

Obverse 1

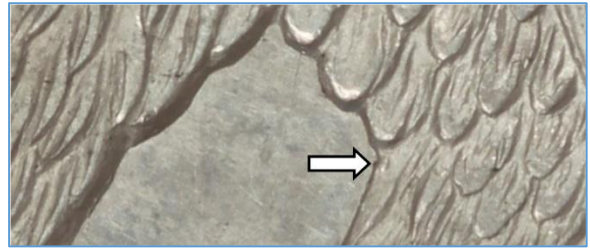


- Date right with what appears to be a weak bottom of the (185)7 from the rock support above the date (photos above and below). Note that the 18 is connected in this die marriage.



- Weak die line from the dentils above Liberty's head thru star 8 to the cap (photo)
- Often seen - weakly struck Liberty's head and stars 8-10

Reverse A



- Small lump on the eagle's left leg (photo)
- Clash in shield's lower right

This is the first use of this obverse die and only use of this reverse die.

Date grid: M4, .014"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61, XF45		Coins from the Bill Bugert Collection and the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1857
WB-1, 7 in Rock Support



Obverse 1



Reverse A

1857 WB-2, 7 in Rock Support

Obverse 1



- Date right with what appears to be a weak bottom of the (185)7 from the rock support above the date (photos above and below). Note: the 18 is not connected in this die marriage.



- The weak die line from the dentils above Liberty's head thru star 8 to the cap seen in the previous use of this die (WB-1) is not visible in this die marriage.
- Often seen - weakly struck Liberty's head and stars 8-10

Reverse B



- Die line from dentil to (S)T(ATES) (photo)
- Unfinished under olive leaves
- Clash in shield's lower right

This is the second use of this obverse die and only use of this reverse die.

Date grid: M4, .016"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Dick Osburn Collection	
Cross reference: WB- Unlisted.			Version ISA.CS

1857
WB-2, 7 in Rock Support



Obverse 1



Reverse B

1857 WB-3, 57 in Rock Support

Obverse 2



- Centered date (photo). The 18 is not connected.



- The bottoms of the 57 are visible protruding from the rock support above the (18)57 (photo)



- VLDS: small lump in the crotch of Liberty's elbow (photo)
- The dies clashing multiple times. Heavy die clashing is visible on each side.
- MDS-LDS: die crack from the left foot of the 1(857) to the dentils at K-7 (See enhanced die crack diagram on the next page.)

Reverse C

- No usable die diagnostics seen
- MDS-LDS: die cracks thru legend and from upper right wing tip to (O)F (See enhanced die crack diagram on the next page.)
- The dies clashing multiple times. Heavy die clashing is visible on each side.

This is the only use of this obverse die and only use of this reverse die.
Some examples have a clockwise rotated reverse die at 12° (EDS) and 30° (LDS).

Date grid: M2.5, .018"	146 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62, AU58		Coins from the Randy Wiley Collection	
Cross reference: WB-103.			Version ISA.CS

1857
WB-3, 57 in Rock Support



Obverse 2 (enhanced die cracks in photo at right)



Reverse C (enhanced die cracks in photo at right)

1857

WB-4, 1857 in Rock Support

Obverse 3



- Date slightly right (photo) with misplaced bottoms of the 1857 in the rock support above the date (photos above and below). Also note the unfinished die/digits (?) in the dentils below the date (photo above).



- EDS-MDS only: rim cud below date (photo)
- MDS-LDS: die crack along the base of the digits of the date (See enhanced die crack diagram on the next page.)
- LDS: clash marks in the field below Liberty's elbow

Reverse D



- Prominent diagonal (NW to SE) die lines thru H(ALF) (photo) and another under the eagle's left wing (photo)
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Unfinished under the olive leaves and under the arrowheads
- Clash in shield's lower right and below the eagle's right wing

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .014"

145 reeds

Typical diameter = 1.202"

Rarity - 3

Draperies die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: XF45

Coin from the Bill Bugert Collection

Cross reference: WB-102.

Version ISA.CS

1857

WB-4, 1857 in Rock Support



Obverse 3 (enhanced die cracks in photo at right)



Reverse D (enhanced die cracks in photo at right)

1857 WB-5

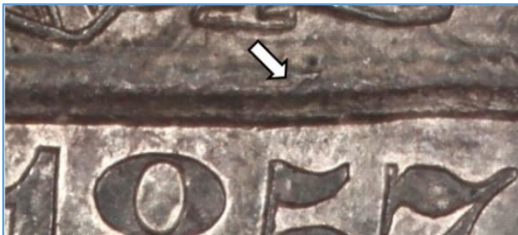
Obverse 4



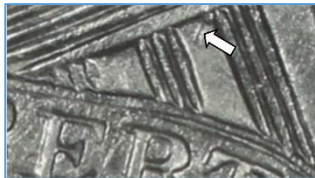
- Date slants down to the right (photo)



- Small lump in the field to the right of Liberty's wrist (photo)

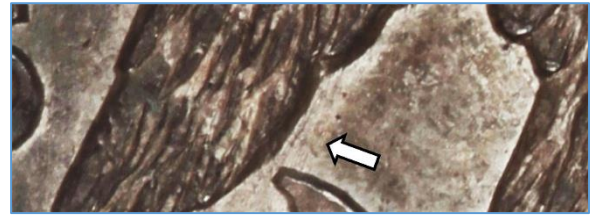


- Possible digit in rock support above the (18)5(7) (photo)



- LDS: small die line in shield's recessed area above the (LIBER)T(Y) (photo)
- LDS: clash in drapery and right field

Reverse E



- Die lines in the field under the eagle's left wing (photo)
- LDS: clashed multiple times

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .012"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53, AU50		Coins from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1857
WB-5



Obverse 4 (enhanced die cracks in photo at right)



Reverse E (enhanced die cracks in photo at right)

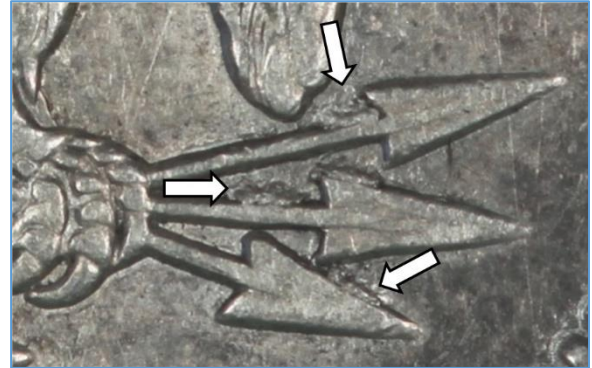
1857 WB-6

Obverse 5



- Centered date (photo)
- Die crack along the base of the date to K-5 (See enhanced die crack diagram on the next page.)

Reverse F



- “Crud” around and on the arrowheads (photo)
- Clash in shield’s lower right
- LDS: orange peel effect in the fields especially around the dentils

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .010”	145 reeds	Typical diameter = 1.200”	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1857
WB-6**



Obverse 5 (enhanced die cracks in photo at right)



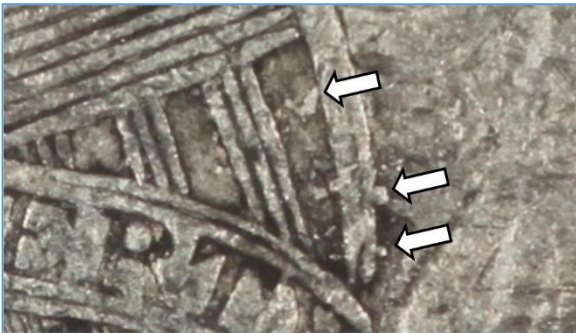
Reverse F

1857 WB-7

Obverse 6

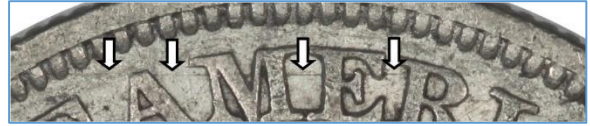


- Centered date slanting slightly down to right (photo)

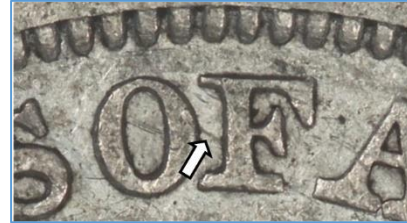


- Rust lumps on the obverse devices, notably along the right edge of the shield (photo)
- Clashes in the drapery

Reverse G



- Prominent diagonal die line thru AMERI(CA) (photo above); another diagonally thru OF (photo below)



- Unfinished die/"crud" along the shield's lower edge (photo)
- Weakly struck eagle

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .016"	145 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1857
WB-7**



Obverse 6



Reverse G

1857

WB-8, Repunched 1, 8 in Dentils

Obverse 7



- Centered date (photo) with the 1 repunched north (repunching shows faintly below the base of the 1) (photos above and below)



- EDS only: 8 in dentils below the (1)8(57) (photo). Eventually the dentils become worn with use/die polishing and the 8 in the dentils is removed.
- Die crack along the base of the date (See enhanced die crack diagram on the next page.)

Reverse H



- Many horizontal die lines between the eagle's left claw and the adjacent olive branch/berry (photo)
- Clashed multiple times with a clash in the shield's lower right and the field below the eagle's right wing
- LDS: orange peel effect starting in the field along the dentils

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .018"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: XF45 LDS: AU55		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1857

WB-8, Repunched 1, 8 in Dentils



Obverse 7 (enhanced die cracks in photo at right)



Reverse H

1857 WB-9

Obverse 8



- Date right slanting slightly down to right (photo)



- Die lines from the ball of Liberty's foot into the rock support (photo)



- Arching die line along the lower edge of Liberty's gown (photo) visible on higher grade coins
- Clash in drapery below Liberty's elbow

Reverse I



- Small die line inside (U)N(ITED) (photo above and another from the dentils to the (O)F (photo below)



- Multiple clash marks seen under the eagle's right wing.

This is the only use of this obverse die and first use of this reverse die.

All examples seen have a reverse rotated 12 ° clockwise.

Date grid: M4, .016"	145 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1857
WB-9**



Obverse 8



Reverse I

1857 WB-10

Obverse 9



- Centered date (photo) with possible lightly repunched 1 (photo below)



- Unfinished under Liberty's chin with vertical die lines (photo)



- Horizontal die line in Liberty's gown to left of pole (photo)

Reverse I



- Small die line inside (U)N(ITED) (photo above and another from the dentils to the (O)F (photo below)



- Multiple clash marks seen under the eagle's right wing.

This is the only use of this obverse die and second use of this reverse die.

Examples seen have reverses unrotated and 12° clockwise rotations

Date grid: M3, .011"	145 reeds	Typical diameter = 1.202"	Rarity - 3
Draperies die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1857
WB-10



Obverse 9



Reverse I

1857 WB-11

Obverse 10



- Centered date (photo)
- This die is very non-descript. No usable die diagnostics other than the date position.

Reverse J



- Two short parallel lines from the upper right serif of the (U)N(ITED) towards the dentils (photo)
- This die is very non-descript. Few diagnostics are usable.

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .014"	145 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1857
WB-11



Obverse 10



Reverse J

1857
WB-12, 1 Repunched North

Obverse 11



- Date right with the 1(857) repunched slightly north (photos above and below)





- Prominent large lump on Liberty's left leg (photo)

Reverse K



- Several die gouges in the eagle's left wing (photo)
- Clash in shield's lower right

This is the first use of this obverse die and first use of this reverse die.

Date grid: R1.5, .012"	145 reeds	Typical diameter = 1.205"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

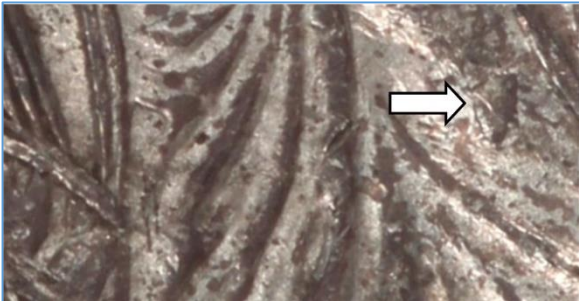
1857
WB-12, 1 Repunched North



Obverse 11



Reverse K

1857 WB-13, 1 Repunched North			
Obverse 11  - Date right with the 1(857) repunched slightly north (photos above and below), much weaker than on the previous use of this die (WB-12).   - Prominent large lump on Liberty's left leg (photo) Reverse L - There are no usable die diagnostics seen - Clash in shield's lower right - Note: there is a possibility that this is the same obverse die as Reverse K, just in a different die state without the die gouges thru the eagle's left wing. More study of examples of this die marriage is needed.			
This is the second use of this obverse die and only use of this reverse die.			
Date grid: R1.5, .012"	Unknown reeds	Typical diameter = Unknown	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1857
WB-13, 1 Repunched North



Obverse 11



Reverse L

1857 WB-14

Obverse 12

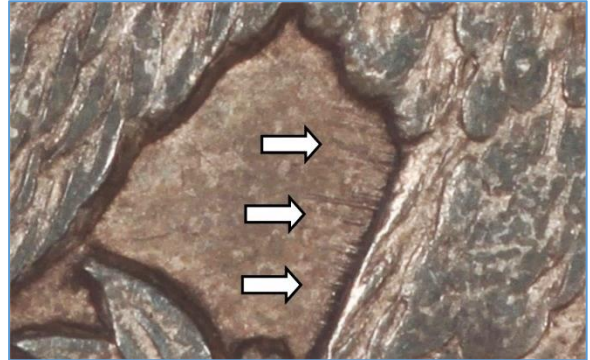


- Centered date slanting down to right (photo)



- Small arching die line in Liberty's hemline (photo). This diagnostic can be very difficult to see and will only be found on high grade coins.
- Unfinished under Liberty's chin

Reverse M



- Many parallel die lines along the eagle's left leg into the field above the olive leaves (photo)
- Weak clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .014"	145 reeds	Typical diameter = 1.200"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1857
WB-14



Obverse 12



Reverse M

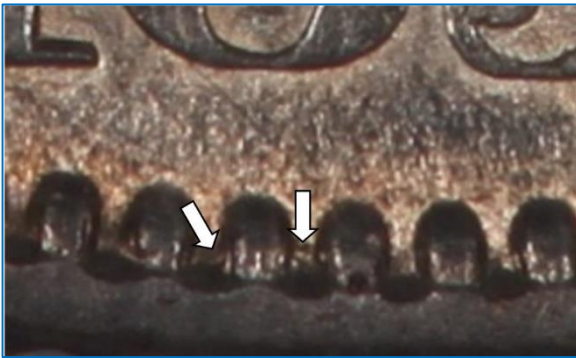
1857

WB-15, Repunched 1, 8 in Dentils

Obverse 13

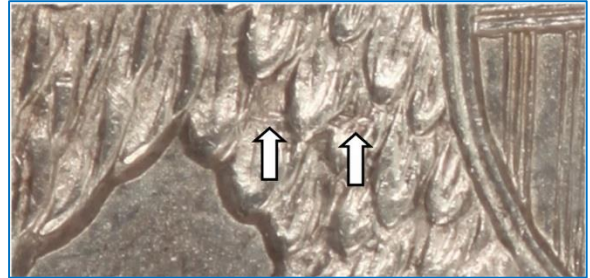


- Centered date slanting down to right (photo) with the top of an 8 in dentils below the date (photo below) and with very minor, difficult to see repunching of the 1. The repunching shows under the 1's serif.



- EDS visible only: 8 punched into the dentils below the (1)8(57) (photo)
- Unfinished under Liberty's chin

Reverse N



- Horizontal wavy lines in the eagle's left wing to the left of the shield (photo)



- Scattered lumps and die lines along the lower right inside edge of the shield (photo)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .013"	Unknown reeds	Typical diameter =Unknown	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU58		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1857

WB-15, Repunched 1, 8 in Dentils



Obverse 13



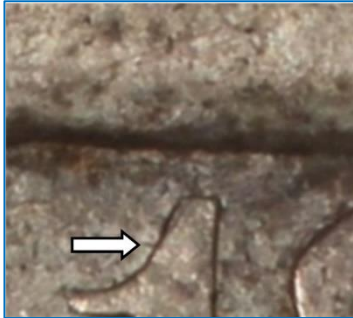
Reverse N

1857 WB-16

Obverse 14

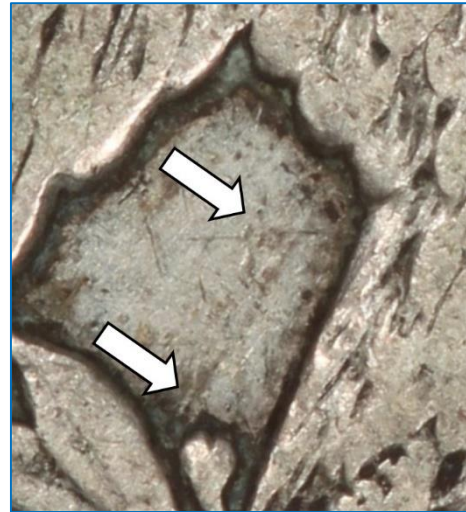


- Centered date (photo)



- Very small weak line from the upper left upright of the 1(857) (photo)
- Clash in Liberty's drapery

Reverse O



- Prominent diagonal (NE to SW) die lines under the eagle's left wing to the olive leaves (photo)



- Small die line inside the lower left "cup" of the U(NITED) (photo)
- Clash in the shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .012"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VF35		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

1857
WB-16



Obverse 14



Reverse O

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1858

This date has one of the highest mintages in the Liberty Seated half dollar series and is easily found at almost all coin shows or with online vendors. With that, examples are relatively inexpensive (when compared with the rest of the series), often overlooked, and many times used as a No Motto half dollar type coin. As plentiful and seemingly boring as they may appear, 1858 half dollars have a lot to offer the collector including dies from two different reverse hubs, repunched dates, misplaced dates, blundered dates, obverse and reverse doubled dies, and 47 die marriages. Finding all the die marriages (and probably even more new ones that are not listed herein) will be a significant multi-year challenge.

Forty-seven die marriages are now known as depicted in the tables below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies		Circulation Strike Reed Counts Known
4,225,700	47	44	Type 1	Type 2	2 (145, 146)
			37	3	

Many 1858 die marriages can be extremely difficult to distinguish. Fortunately, many have different date positions that are extremely helpful in die identification and the following table is therefore useful.

1858 date grid quick reference table

Obverse die date grid	Die Marriage	Obverse die date grid	Die Marriage
L5, .004"	WB-32	M1.5, .014"	WB-30
L5, .005"	WB-42	M1.5, .015"	WB-26
L5.5, .005"	WB-40	M1.5, .016"	WB-25
L5.5, .010"	WB-37	M2, .008"	WB-13
L5.5, .012"	WB-31	M2, .008"	WB-17
L5.5, .016"	WB-23	M2, .012"	WB-9
M1, .008"	WB-38	M2, .014"	WB-18
M1, .010"	WB-33	M2, .014"	WB-19
M1, .012"	WB-44	M2, .014"	WB-24
M1, .015"	WB-10	M2, .016"	WB-22
M1.5, .006"	WB-7	M2.5, .012"	WB-15
M1.5, .008"	WB-4	M2.5, .006"	WB-14
M1.5, .008"	WB-12	M2.5, .006"	WB-16
M1.5, .010"	WB-43	M2.5, .008"	WB-36
M1.5, .010"	WB-39	M2.5, .012"	WB-28
M1.5, .012"	WB-1	M2.5, .014"	WB-41
M1.5, .012"	WB-3	M3, .004"	WB-34
M1.5, .012"	WB-5	M3, .009"	WB-21
M1.5, .012"	WB-6	M3, .010"	WB-20
M1.5, .012"	WB-11	M3, .010"	WB-47
M1.5, .012"	WB-29	M3, .012"	WB-45
M1.5, .012"	WB-35	M3, .012"	WB-46
M1.5, .014"	WB-2	M3, .013"	WB-27
M1.5, .014"	WB-8	-	-

Reverse hubs. As I detailed in the Introduction, 1858 marks the introduction of the Type 2 reverse hub at the Philadelphia Mint. Without contemporary documentation to indicate otherwise, the conventional wisdom is that the Type 1 reverse coins were minted first and the Type 2 coins last.



Type 1 reverse hub (photo at left). Previously, the type 1 hub was used on Liberty Seated half dollars and is readily identified by the short base on the letter (HA)L(F) and the lack of a lump along the eagle's left leg. Caution: some coins from the Type 1 reverse hub have a random lump, different from that found on the Type 2, in almost the same position as the Type 2. Do not confuse them. (e.g., see WB-11 and WB-13.)



Type 2 reverse hub (photo at right). The Type 2 reverse is easily identified by the long base on the letter (HA)L(F) and a diagnostic lump along the eagle's left leg.

1858 Die Characteristics.

- All 1858 half dollars are from the Master Die 1, Type 1 and Type 2 working hubs.
- Strongly struck 1858 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- For lack of or a minimum of obvious die characteristics, many dies can be very difficult to distinguish especially in lower circulated grades.
- Die clashes including multiple die clashes are common.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads
- Die wear and/or periodic die maintenance (polishing) weakened the lower edge of the rock support above the date on some coins.
- Many repunched dates, misplaced dates, and blunder dates exist for 1858.
- At least six different doubled dies, mostly minor, are known for 1858.
- Some of the 1858 dates were punched into the working dies at an angle, slopping down to the right. More than one collector has speculated to me that a separate punch was used for the second 8 as it appears to be lower than the 185. That is not the case of the coins I have seen. Careful study of these dates shows that the figures in the date are even, merely slopping down to the right.

Special Acknowledgement. I wish to thank Dick Osburn for lending me his very large collection of 1858 half dollar varieties for study and inclusion in this book. He has a special interest in this date and he had more than a few die marriages that Randy and I did not have. His coins were all of high grade and I am deeply appreciative of his time studying these and the expense he put into collecting these.

1858 Half Dollar Date Positions

		
Obverse 1, WB-1, Doubled Die Obverse, Repunched 1	Obverse 2, WB-2, Repunched 2nd 8	Obverse 3, WB-3, Date Repunched North
		
Obverse 4, WB-4	Obverse 5, WB-5	Obverse 6, WB-6
		
Obverse 7, WB-7, Errant 8 "Center" in Rock Support	Obverse 8, WB-8	Obverse 9, WB-9, Doubled Die Obverse
		
Obverse 10, WB-10	Obverse 11, WB-11	Obverse 12, WB-12, Errant 8 from Rock Support, Repunched 2 nd 8
		
Obverse 13, WB-13, Catfish Foot	Obverse 14, WB-14, WB-16 185 Repunched North	Obverse 15, WB-15

1858 Half Dollar Date Positions

		
Obverse 16, WB-17, Date Repunched over Inverted 1	Obverse 17, WB-18, WB-19, Errant 8 from Rock Support	Obverse 18, WB-20, 18 Repunched North
		
Obverse 19, WB-21, 18 Repunched North, 2nd 8 Repunched South	Obverse 20, WB-22, 85 in Dentils	Obverse 21, WB-23, Date Left and Low
		
Obverse 22, WB-24	Obverse 23, WB-25, WB-26	Obverse 24, WB-27
		
Obverse 25, WB-28	Obverse 26, WB-29	Obverse 27, WB-30, 18 in Shield and Rock Support
		
Obverse 28, WB-31, Lance in Eagle	Obverse 29, WB-32	Obverse 30, WB-33

1858 Half Dollar Date Positions

		
Obverse 31, WB-34	Obverse 32, WB-35	Obverse 33, WB-36
		
Obverse 34, WB-37, Blundered 1	Obverse 35, WB-38, Crumbled Reverse Die	Obverse 36, WB-39
		
Obverse 37, WB-40, 8 in Rock Support	Obverse 38, WB-41, Doubled Reverse Die	Obverse 39, WB-42, Doubled Reverse Die
		
Obverse 40, WB-43, Doubled Reverse Die	Obverse 41, WB-44, Type 2 Reverse	Obverse 42, WB-45, Type 2 Reverse
		
Obverse 43, WB-46, Type 2 Reverse	Obverse 44, WB-47, Type 2 Reverse	

1858 Half Dollar Obverse and Reverse die identification keys		Lumps from the eagle's left leg	Die line connects DO(L)	Horizontal die line in the feathers of the eagle's neck	Die line in the recessed area between olive leaves #4 and #5	Horizontal shield lines extend into the eagle's left wing	Die line in the recessed area of the (A)M(ERICA)	Unusual clash marks along the upper left edge of the eagle's wing	Concentric die lines in the dentils	Small lump on the eagle's left leg	Die line in the shield's lower left
		A	B	C	D	E	F	G	H	I	J
		Type 1 hub									
Doubled Die, Repunched 1	1	WB-1									
Repunched 2 nd 8	2		WB-2								
Date Repunched North	3			WB-3							
Date high	4				WB-4						
Vertical die line in the shield	5					WB-5					
Lump in the drapery	6						WB-6				
Errant 8 in rock support	7							WB-7			
Top of 1 repunched	8							WB-8			
Doubled Die	9								WB-9		
Date centered	10								WB-10		
Die lines above shield tip	11									WB-11	
1 from Rock Support, Repunched 2 nd 8	12										WB-12

1858 Half Dollar Obverse and Reverse die identification keys (continued)		Die lines from the eagle's left wing	Die lines from the eagle's left leg	Die lines from the eagle's left leg	Die line thru (ST)AT(ES)	Lump on right serif of (U)N(ITED)	Die line diagonally thru (UNIT)ED	Tiny chip in the dentils above the right edge of the (UNIT)E(D)	Shield's left horizontal lines extend slightly into the outer shield edge	Die line from the (O)F
		K	L	M	N	O	P	Q	R	S
		Type 1 hub								
Catfish foot	13	WB-13								
185 repunched north	14		WB-14	WB-16						
Die crack thru 1	15		WB-15							
Date Repunched over Inverted 1	16				WB-17					
Errant 8 from Rock Support	17					WB-18	WB-19			
18 repunched north	18							WB-20		
18 Repunched North, 2 nd 8 Repunched South	19								WB-21	
85 in dentils	20									WB-22

1858 Half Dollar Obverse and Reverse die identification keys (continued)		Small die lines between olive leaves	Die cracks thru the legend	Die lines thru the upper olive bud
		T	U	V
		Type 1 hub		
Date left and low	21	WB-23		
Die lines in rock support	22	WB-24		
Date low	23		WB-25	WB-26

1858 Half Dollar Obverse and Reverse die identification keys (continued)		Orange peel effect thru legend	lump in the field to the left of the eagle's neck a	Die lines thru the olive leaves	Lance in Eagle	Die line from eagle's left wing into field towards the (U)N(ITED)	Internal cud along the right inside edge of the shield	Scattered rust lumps in fields	Die lines thru (AMER)IC(A)	No usable die diagnostics
		W	X	Y	Z	AA	BB	CC	DD	EE
		Type 1 hub								
Tine above serif of the 1(858)	24	WB-27								
Tiny tine on serif of 1(858)	25		WB-28							
Date with thick, heavy digits	26			WB-29						
18 in Shield and Rock Support	27			WB-30						
Date left	28				WB-31					
Date far left and high	29					WB-32				
Date slants down to right	30					WB-33				
No usable die diagnostics	31						WB-34			
Rust lumps in fields	32							WB-35		
Small lumps in Liberty's gown	33								WB-36	
Blundered 1 below 18	34									WB-37

1858 Half Dollar Obverse and Reverse die identification keys (continued)		Crumbled die	Die lines under (A)M(ERICA)	Die lines in the shield and directly under the eagle's left wing	Doubled Die	Doubled Die	Doubled Die	Small lump on shaft of lowest arrow	No usable die diagnostics except die cracks	Small lump on the underside of the (UNI)T(ED)
		FF	GG	HH	II	JJ	KK	LL	MM	NN
		Type 1 hub						Type 2 hub		
Die lines under right knee	35	WB-38								
Date high	36		WB-39							
8 in rock support	37			WB-40						
No usable die diagnostics	38				WB-41					
Date left and high	39					WB-42				
Die lines in gown to left of the shield tip	40						WB-43			
Heavily clashed	41							WB-44		
Lump in drapery next to shaft	42								WB-45	
"Crud" along the staff's shaft	43									WB-46
Date with thick and heavy numerals	44									WB-47

1858

WB-1, Doubled Die Obverse, Repunched 1

Obverse 1



- Centered date (photo)



- Base of the 1 is repunched south (photo)



- Dramatic die doubling mostly visible on the obverse's lower left including the rock, shield, and Liberty's skirt (photo). Some doubling at the left rock support shows signs of possible tripled die doubling.
- Die clashes above Liberty's right leg
- LDS: die cracks around star and at the base of date (See enhanced die crack diagram on the next page.)

Reverse A

Type 1 Reverse Hub



- Small die lumps from the eagle's left leg (photo)



- LDS: die deteriorating with orange peel effect thru legend at K-10 thru K-5 (photo)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .012"	146 reeds	Typical diameter = 1.204"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: AU50	Coin from the Bill Bugert Collection
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Cross reference: WB-102.	Version ISA.CS
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1858

WB-1, Doubled Die Obverse, Repunched 1



Obverse 1 (enhanced die cracks in photo at right)



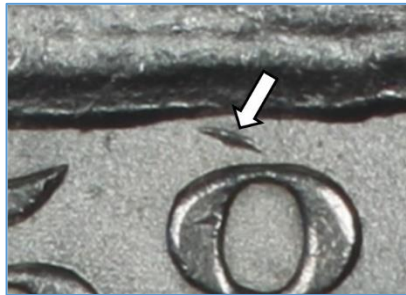
Reverse A

1858 WB-2, Repunched 2nd 8

Obverse 2



- Centered date (photo). Remnants of an initially punched 8 shows between the rock support and the top of the 2nd 8 (photos above and below)

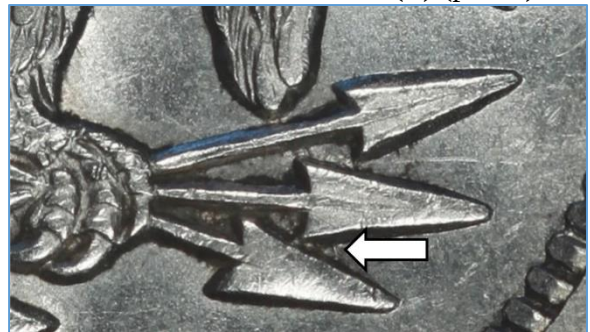


Reverse B

Type 1 Reverse Hub



- Small die line connects DO(L) (photo)



- Vertical die line thru arrowheads (photo)
- Die crack thru legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .014"	146 reeds	Typical diameter = 1.203"	Rarity - 3
Draperies die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: ANACS AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-103.			Version ISA.CS

1858
WB-2, Repunched 2nd 8



Obverse 2



Reverse B (enhanced die cracks in photo at right)

1858			
WB-3, Date Repunched North			
<u>Obverse 3</u>  - Centered date slanting slightly down to right (photo)  - Date obliquely repunched slightly north (photo), mostly visible at the base of the 1.		<u>Reverse C</u> <i>Type 1 Reverse Hub</i>  Small horizontal die line in the feathers of the eagle's neck (photo). This reverse die has no other die characteristic and this die line will only be on coins grading VF or higher.	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M1.5, .012"		146 reeds	Typical diameter = 1.202"
Rarity - 3			
Drapery die state: Full		Foot support: Weak	Dentils: Obverse - Full; Reverse - Full
Grade of coin depicted: XF45 NGC MS61		Coins from the Bill Bugert Collection and the Dick Osburn Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1858
WB-3, Date Repunched North



Obverse 3



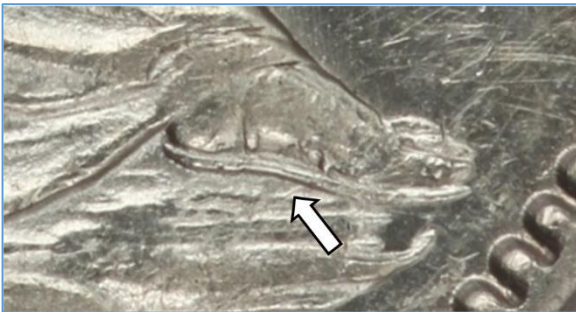
Reverse C

1858 WB-4

Obverse 4



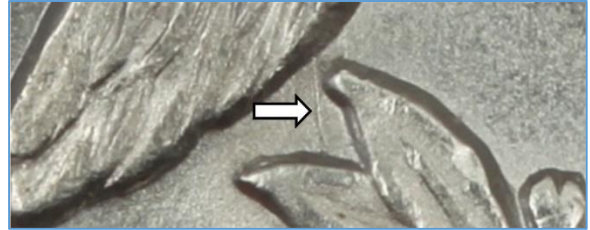
- Date positioned high in the field between the rock support and dentils (photo)



- Small diagonal (NE to SW) die line in the rock support from Liberty's sandal (photo)

Reverse D

Type 1 Reverse Hub



- Vertical die line in the recessed area between olive leaves #4 and #5 to the eagle's left wing (photo)
- LDS: die cracks thru legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .008"	146 reeds	Typical diameter = 1.205"	Rarity - 3
Draperies die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-4**



Obverse 4



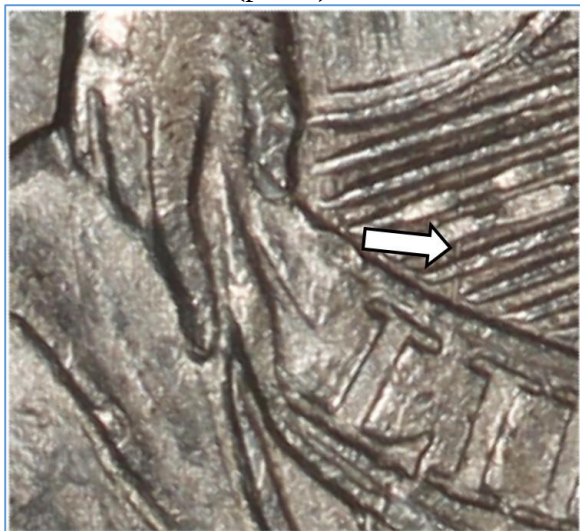
Reverse D (enhanced die cracks in photo at right)

1858 WB-5

Obverse 5



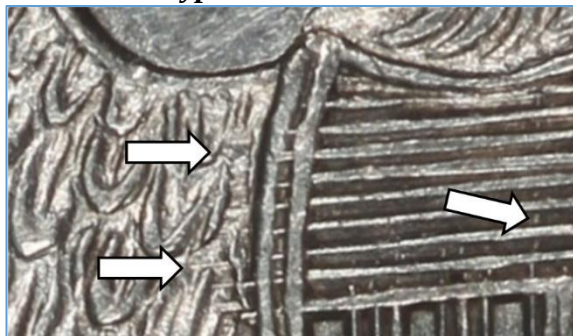
- Centered date (photo)



- Vertical die line in the shield's horizontal lines above LI(BERTY) (photo)

Reverse E

Type 1 Reverse Hub



- Reverse vertical shield lines extend into the horizontal shield lines above; horizontal shield lines extend into the eagle's left wing (photo). Note also that there appears to be die repair/touch up (?) along the left edge of the shield in the vicinity of the extended shield lines.
- Other feathers on the eagle's left wing show evidence of possible hand engraving feature touch up.

This is the only use of this obverse die and only use of this reverse die.

One example of this die marriage has a partial tilted collar with the reeding towards the reverse. (photo)



Date grid: M1.5, .012"	146 reeds	Typical diameter = 1.205"	Rarity – 3 Partial Collar Rarity – 7
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45 and AU53		Partial collar coin from the Bill Bugert Collection Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-5**



Obverse 5



Reverse E

1858 WB-6

Obverse 6



- Date slants down slightly to right (photo)



- Small lump in the drapery between Liberty's elbow and the pole (photo)



- Small die line in the recessed area above the ribbon (photo)

Reverse F

Type 1 Reverse Hub



- Very few non-die state diagnostics to identify this reverse die except for a small die line in the recessed area of the (A)M(ERICA) (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .012"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: NGC MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-6**



Obverse 6



Reverse F

1858

WB-7, Errant 8 “Center” in Rock Support

Obverse 7



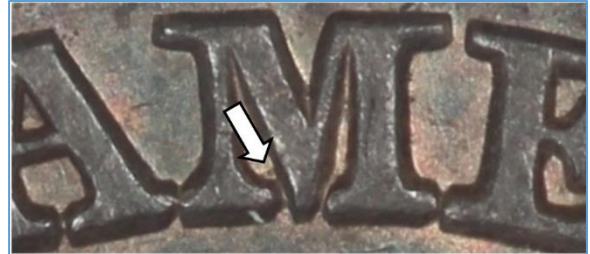
- Date placed high in the field between the rock support and the dentils and slanting down to right (photo)



- “Center” of the loop of the 8 in the recessed area of the rock support to the right of the shield tip (photo)
- Strong clashes in Liberty’s drapery below the elbow

Reverse G

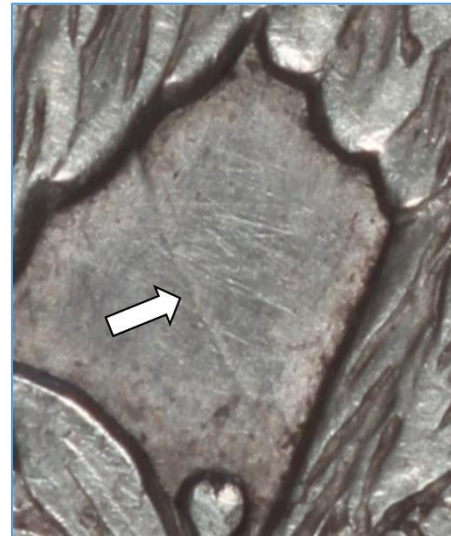
Type 1 Reverse Hub



- Small line inside the (A)M(ERICA) (photo)



- Unusual clash marks along the upper left edge of the eagle’s wing (photo above) and below the eagle’s left wing (photo below)



This is the only use of this obverse die and first use of this reverse die.

Date grid: M1, .006”	145 reeds	Typical diameter = 1.201”	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40, AU53		Coins from the Bill Bugert Collection and the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1858

WB-7, Errant 8 “Center” in Rock Support



Obverse 7



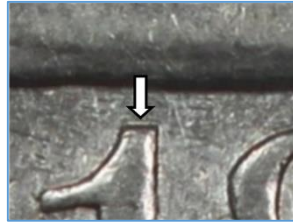
Reverse G

1858 WB-8

Obverse 8



- Date (photo)
- Very slightly repunched top of the 1(858) (photo at right)



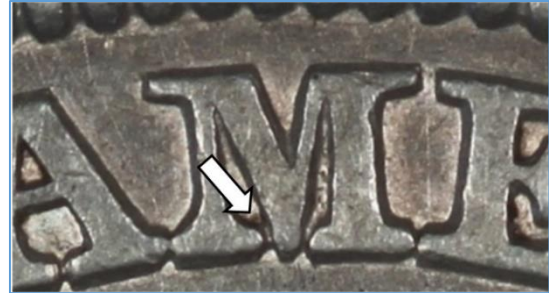
- Small lump in Liberty's gown along left arm (photo)



- Small lump in the drapery next to the pole (photo)

Reverse G

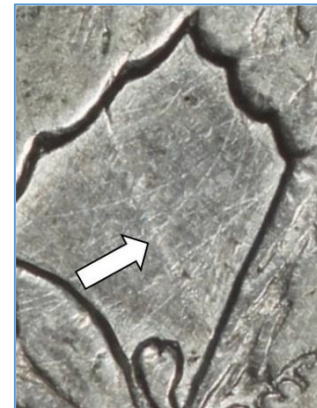
Type 1 Reverse Hub



- Small line inside the (A)M(ERICA) (photo)



- Unusual clash marks along the upper left edge of the eagle's wing (photo above) and below the eagle's left wing (photo below), now much weaker than on the previous use of this die (WB-7)



This is the only use of this obverse die and second use of this reverse die.

Date grid: M1.5, .014"	145 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VG10		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-8**



Obverse 8



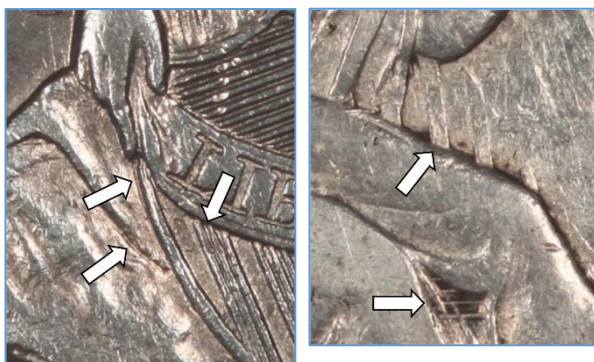
Reverse G

1858 WB-9, Doubled Die Obverse

Obverse 9



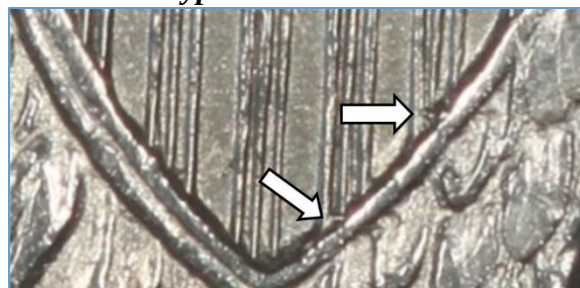
- Centered date (photo)



- Weak die doubling mostly visible on the obverse's lower left including the rock and shield (photo above left). This die doubling is similar to WB-1 but it is not the same.
- Very heavy die clashes above Liberty's right leg (photo above right)

Reverse H

Type 1 Reverse Hub



- Two very small cuts in the shield's right edge (photo)



- Concentric die lines in the dentils nearly around the entire circumference (photo) shown here below (HA)LF D(OL)



- LDS only: die gouge from O(F) to dentils (photo); another at (UNIT)E(D) to dentils

This is the only use of this obverse die and first use of this reverse die.

Date grid: M2, .012"	145 reeds	Typical diameter = 1.200"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: XF40, XF45, PCGS AU58

Coins from the Bill Bugert Collection, the Randy Wiley Collection, and the Dick Osburn Collection

Cross reference: WB-Unlisted.

Version ISA.CS

1858
WB-9, Doubled Die Obverse



Obverse 9



Reverse H

1858 WB-10

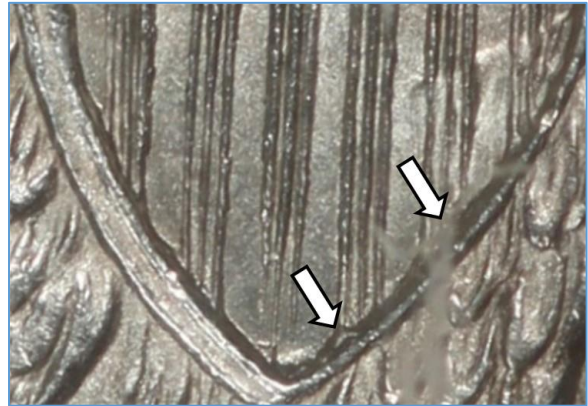
Obverse 10



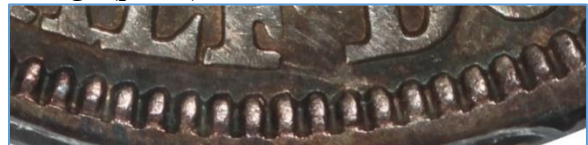
- Date centered (photo)
- Other than date position, die diagnostics are sparse and very weak for this obverse die.
- Die clash in the field to the right of the drapery

Reverse H

Type 1 Reverse Hub



- Two very small cuts in the shield's right edge (photo)



- Concentric die lines in the dentils nearly around the entire circumference (photo) shown here below (HA)LF D(OL)
- The die gouges from O(F) to dentils and the other at (UNIT)E(D) to dentils seen in the previous use of this die (WB-9) are not now visible.

This is the only use of this obverse die and second use of this reverse die.

Date grid: M1, .015"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU55		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-10**



Obverse 10



Reverse H

1858 WB-11

Obverse 11



- Centered date (photo). Note the weakened bottom edge of the rock support above the date.



- Multiple horizontal die lines in Liberty's gown above the shield tip (photo). These die lines are visible on coins grading as low as VG.



- EDS only: die lines from dentils near star 10 (photo) that fade with advancing die state
- Multiple clashes in the right field

Reverse I

Type 1 Reverse Hub



- Small lump on the eagle's left leg, coincidentally, in the same location as a Type 2 lump (photo). Do not confuse this reverse with a Type 2 hub. This reverse is very similar but not the same as Rev K.
- Multiple clashes in the field under the eagle's right wing
- LDS: die cracks thru portions of the legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .012"	145 reeds	Typical diameter = 1.200"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: VG10 and AU55

Coins from the Bill Bugert Collection and the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

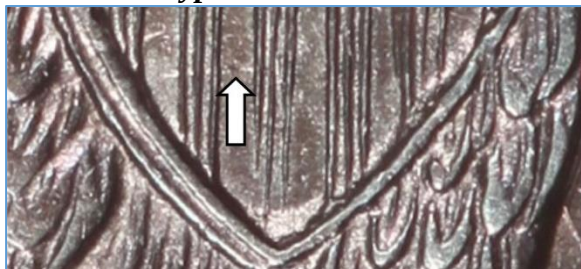
1858
WB-11



Obverse 11



Reverse I (enhanced die cracks in photo at right)

1858			
WB-12, Errant 1 from Rock Support, Repunched 2 nd 8			
<u>Obverse 12</u>  • Centered date (photo)  • Portion of a 1 protrudes from the rock support above the 18(58) (photo above left) The 2nd 8 is repunched with the first digit in the lower loop of the (185)8 (photo above right). • Multiple clashes in the right field		<u>Reverse J</u> <i>Type 1 Reverse Hub</i>  • Small horizontal die line in the shield's lower left (photo). Note, this is not a clash mark. • Weak bottom vertical shield line C1	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M1.5, .008"		145 reeds	Typical diameter = 1.202"
Rarity - 3			
Drapery die state: Full		Foot support: Full	Dentils: Obverse - Full; Reverse - Full
Grade of coin depicted: AU55		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1858

WB-12, Errant 1 from Rock Support, Repunched 2nd 8



Obverse 12



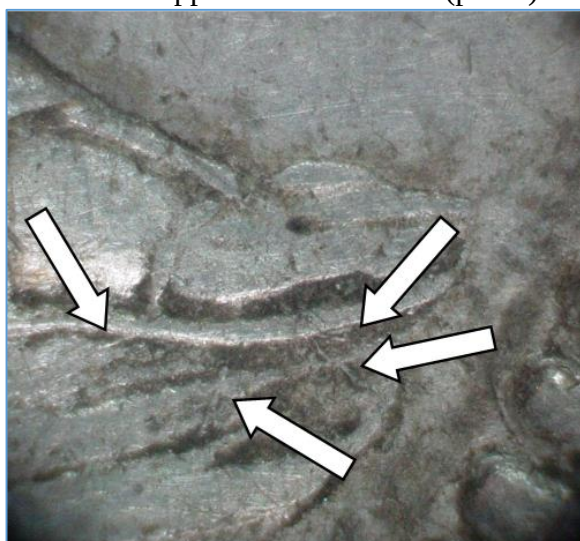
Reverse J

1858 WB-13, Catfish Foot

Obverse 13



- Date positioned high in the field between the rock support and the dentils (photo)



- Die lines from Liberty's foot resembling the whiskers on a catfish (photo)
- Die clashes above Liberty's right leg
- LDS: die cracks thru most of the stars (See enhanced die crack diagram on the next page.)

Reverse K

Type 1 Reverse Hub



- Small die lines from the eagle's left wing (photo)



- Diagonal die line thru (STA)TES (photo)



- Small lump on the eagle's left leg, coincidentally, in the same location as a Type 2 lump (photo). Do not confuse this reverse with a Type 2 hub. This reverse is very similar but not the same as Rev I.
- Clash in shield's lower right and multiple clashes in the field under the eagle's right wing

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2, .008"	146 reeds	Typical diameter = 1.197"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-13, Catfish Foot



Obverse 13 (enhanced die cracks in photo at right)



Reverse K

1858			
WB-14, 185 Repunched North			
<u>Obverse 14</u>  • Date positioned high in the field between the rock support and the dentils and slants down to the right (photo)  • The digits 185(8) are noticeably repunched north with evidence of an early punching under each digit and below the serifs. The serif of a 1 is also visible along the left upright of the 1. (photo) The 1(858) is at least triple punched.		<u>Reverse L</u> <i>Type 1 Reverse Hub</i>  • Horizontal die lines from the eagle's left leg to olive leaves (photo)  • Die line under eagle's left wing from tip of olive leaf #4 (photo)  • Clash in shield's lower right and under right wing; clashed at least 4 times.	
This is the first use of this obverse die and first use of this reverse die.			
Date grid: M2.5, .006"	145 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Dick Osburn Collection	
Cross reference: WB-104.		Version ISA.CS	

1858
WB-14, 185 Repunched North



Obverse 14



Reverse L

1858 WB-15

Obverse 15



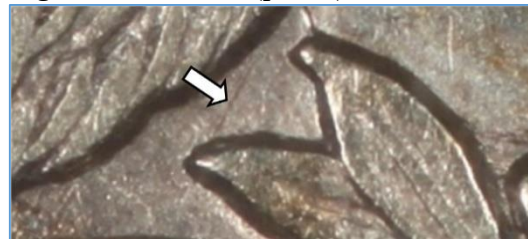
- Centered date (photo)
- LDS: die cracks thru stars, date, and Liberty's foot (See enhanced die crack diagram on the next page.)

Reverse L

Type 1 Reverse Hub



- Horizontal die lines from the eagle's left leg to olive leaves (photo)



- Die line under eagle's left wing from tip of olive leaf #4 (photo)



- Clash in shield's lower right and under right wing; clashed at least 7 times, at least 3 more than the previous use of this die.

This is the only use of this obverse die and second use of this reverse die.

Date grid: M2.5, .012"	145 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Coin from the Dick Osburn Collection	
Cross reference: WB-102.			Version ISA.CS

**1858
WB-15**



Obverse 15 (enhanced die cracks in photo at right)



Reverse L

1858

WB-16, 185 Repunched North

Obverse 14



- Date positioned high in the field between the rock support and the dentils and slants down to the right (photo)



- The digits 185(8) are noticeably repunched north with evidence of an early punching under each digit and below the serifs. The serif of a 1 is also visible along the left upright of the 1. (photo) The 1(858) is at least triple punched.
- This die is now cracked with cracks along the date's base, to the left of the date, and thru Liberty's foot. (See enhanced die crack diagram on the next page.)

Reverse M

Type 1 Reverse Hub



- Three very small die lumps on the edge of the eagle's left wing (photo)



- EDS and MDS only: one die line from olive leaf #4 to eagle's wing and another diagonally thru the upper bud (photo)
- Clash in shield's lower right

This is the second use of this obverse die and only use of this reverse die.

Date grid: M1.5, .006"	146 reeds	Typical diameter = 1.204"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: PCGS AU55, AU53, and PCGS AU50	Coins from the Bill Bugert, Randy Wiley, and Dick Osburn Collections
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Cross reference: WB-104.	Version ISA.CS
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1858
WB-16, 185 Repunched North



Obverse 14 (enhanced die cracks in photo at right)



Reverse M

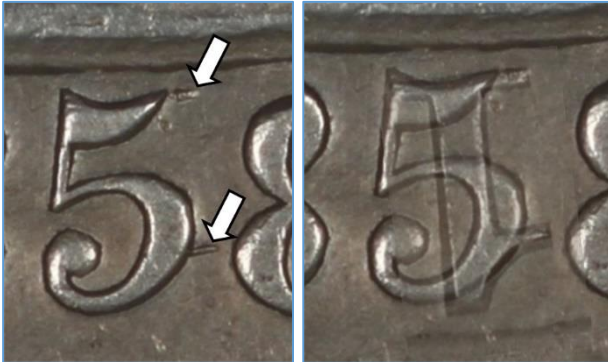
1858

WB-17, Date Repunched over Inverted 1

Obverse 16



- Date positioned slightly high in the field between the rock support and the dentils (photo)



- This blundered date appears to have the date repunched over an inverted date. The remnants of the inverted 1 can be seen as two lumps between the (18)58 (photo above left). Measurements and an overlay (photo above right) verify the distance between the two remnants as the tip and serif of a 1.
- Die clash in the field to the right of the drapery

Reverse N

Type 1 Reverse Hub



- Small die line thru (ST)AT(ES) (photo)
- LDS: clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2, .008"	145 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-105.			Version ISA.CS

1858

WB-17, Date Repunched over Inverted 1



Obverse 16



Reverse N

1858

WB-18, Errant 8 from Rock Support

Obverse 17

- Centered date (photo) There are remnants of two 8s from the rock support as depicted above and below.

EDS only

All die states

- EDS only: An errant 8 appears to have been punched into the rock support with the right loop visible in the rock below the gown loop and the bottom of an 8 protruding into the field above the (1)85(8) (photo above left). From studying an overlay of 8s on the errant digit, it may be doubled punched into the rock support. See photo at right.
- All die states: The bottom of an 8 protrudes from the rock support to the upper right of the (185)8 (photo above right).

Reverse O

Type 1 Reverse Hub

- Small lump on top of the right serif of the (U)N(ITED) (photo)
- All die states seen including the so-called proofs (see note below): very heavy clash in shield's lower right and in the field below the eagle's right wing
- LDS: circumferential die crack around the lower reverse (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.			
Note. Third party graded examples of this die marriage are graded and encapsulated as Proof coins. I do not believe these are proofs but merely later die state dies highly polished to remove the errant digits. Struck from a heavily clashed and cracked reverse die, the only indication that this die marriage may be a proof strike is from the reflective fields – that characteristic is prevalent on many high grade Liberty Seated half dollars and not cause for classifying it as anything other than a circulation strike.			
Date grid: M2, .014"	145 reeds	Typical diameter = 1.199"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VF30 and NGC PF62		Coins from the Randy Wiley and Bill Bugert Collections	
Cross reference: WB-108.			Version ISA.CS

Bill Bugert

127

1858
WB-18, Errant 8 from Rock Support



(Circulation Strike)



So-called Proof

Obverse 17



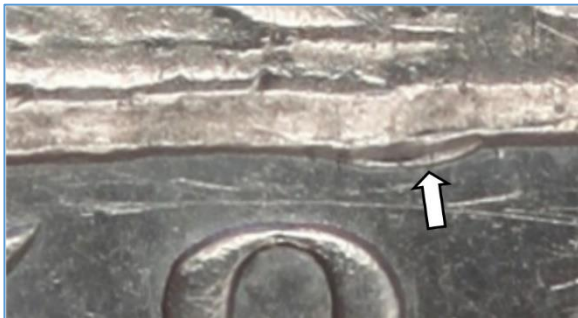
(Circulation Strike)



So-called Proof



Reverse O (enhanced die cracks in photo at right)

1858			
WB-19, Errant 8 from Rock Support			
<u>Obverse 17</u>		<u>Reverse P</u>	
		<i>Type 1 Reverse Hub</i>	
Centered date (photo). There are remnants of an 8 from the rock support as depicted above and below. 		Die diagnostics are sparse and very weak for this reverse die. 	
All die states: The bottom of an 8 protrudes from the rock support to the upper right of the (185)8 (photo). Note: the errant 8 punched into the rock support with the right loop visible in the rock below the gown loop and the bottom of an 8 protruding into the field above the (1)85(8) seen in the previous use of this die (WB-18) is not now visible.		Small die line diagonally thru (UNIT)ED and a small die line down from the upper left serif of the (U)N(ITED) (photo)	
This is the second use of this obverse die and only use of this reverse die.			
Examples seen of this die marriage are prooflike and likely caused by polishing of the die to remove errant digits.			
Date grid: M2, .014"	145 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-108.		Version ISA.CS	

1858

WB-19, Errant 8 from Rock Support



Obverse 17



Reverse P

1858

WB-20, 18 Repunched North

Obverse 18



- Date high and slants down to right with the 18(58) repunched north. The earlier digits show plainly below the bases of the 18(58) (photos above and below).



- Die crack from the rock support below the foot to the dentils below star 13. (See enhanced die crack diagram on the next page.)
- This obverse die with repunched digits is similar to but not the same as obverse 14 used on WB-14 and WB-16. Note the different date positions.

Reverse Q

Type 1 Reverse Hub

- Die diagnostics are sparse for this reverse die.



- Tiny chip in the dentils above the right edge of the (UNIT)E(D) (photo)
- Clash in shield's lower right and multiple clashes in the field below the eagle's right wing

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .010"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-106.			Version ISA.CS

1858

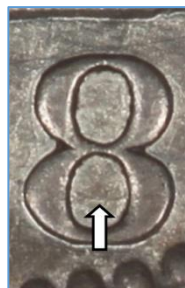
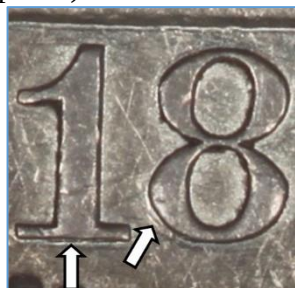
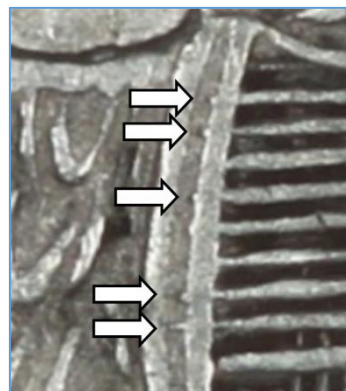
WB-20, 18 Repunched North



Obverse 18 (enhanced die cracks in photo at right)



Reverse Q

1858			
WB-21, 18 Repunched North, 2 nd 8 Repunched South			
<u>Obverse 19</u>  • Date positioned slightly high in the field between the rock support and the dentils (photo)  • The base of the 18(58) shows slight repunching (photo above left). The bottom of the second (185)8 has a lower loop of an 8 prominently visible even on low grade coins (photo above right). Note: The “ghost” upper loop of the 8 that appears to be in the upper loop of the (185)8 is not on the die and is a toning/hairline anomaly. • LDS: weak die cracks around the stars 1-3, and 10-12 (See enhanced die crack diagram on the next page.)		<u>Reverse R</u> <i>Type 1 Reverse Hub</i> • Die diagnostics are sparse for this reverse die.  • The shield's left horizontal lines extend slightly into the outer shield edge (photo). • Heavy clash in shield's lower right and multiple clashes in the field below the eagle's right wing	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M3, .009"	146 reeds	Typical diameter = 1.206"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45 and AU50		Coins from the Bill Bugert Collection and the Randy Wiley Collection	
Cross reference: WB-107.		Version ISA.CS	

1858

WB-21, 18 Repunched North, 2nd 8 Repunched South



Obverse 19 (enhanced die cracks in photo at right)



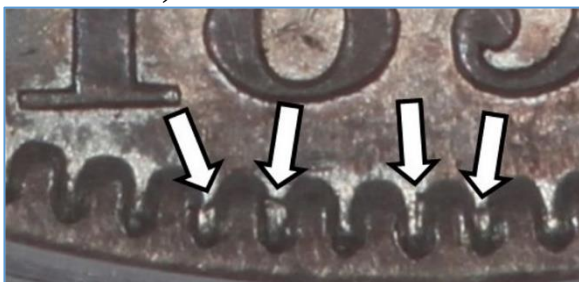
Reverse R

1858 WB-22, 85 in Dentils

Obverse 20



- Date centered (photo). The top loop of an 8 and upper left portion of a 5 can be seen in the dentils below the date. (photos above and below)



Reverse S

Type 1 Reverse Hub



- Small die line from the (O)F serif's upper right to the dentil above A(MERICA) (photo)



- Very weak die line in the field between olive leaves #3 and #4 (photo)

This is the only use of this obverse die and only use of this reverse die.

Although listed in our 1993 *Complete Guide to Liberty Seated Half Dollars* as a (rarity) R-8, this variety at the time was new to Randy and me, discovered shortly before our book was completed, and had an unknown rarity. R-4 is now more realistic.

Date grid: M2, .016"	146 reeds	Typical diameter = 1.207"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU58 CAC		Coin from the Bill Bugert Collection	
Cross reference: WB-109.			Version ISA.CS

1858
WB-22, 85 in Dentils



Obverse 20



Reverse S

1858 WB-23, Date Left and Low

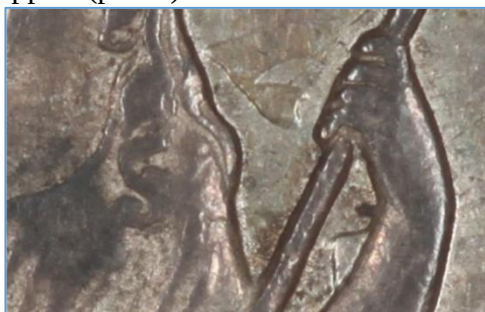
Obverse 21



- Date left and low with the left base of the 1(858) nearly touching the dentil below (photo)



- Die lines from Liberty's foot into the rock support (photo)



- All examples seen: heavily clashed with evidence of the reverse die by Liberty's right hand (photo)
- Die cracks around the stars (See enhanced die crack diagram on the next page.)

Reverse T

Type 1 Reverse Hub



- Small die lines between olive leaves (photo)
- All examples seen: clash in shield's lower right and in the field below the eagle's right wing
- Weak die cracks long the top of letters AMERI(CA)

This is the only use of this obverse die and first use of this reverse die.

Date grid: L5.5, .016"	146 reeds	Typical diameter = 1.206"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coins depicted: XF45 and AU58		Coins from the Bill Bugert Collection and the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-23, Date Left and Low



Obverse 21 (enhanced die cracks in photo at right)



Reverse T

1858 WB-24

Obverse 22



- Date centered and slanting down to the right (photo)



- Many die lines in the rock support under Liberty's foot and another along the dentils near Liberty's toe (photo)



- LDS only: heavily clashed with evidence of the reverse die by Liberty's right hand (photo)
- LDS: very faint die cracks thru stars 1-7 (See enhanced die crack diagram on the next page.)

Reverse T

Type 1 Reverse Hub



- Small die lines between olive leaves, now weaker than on the previous use of this die (WB-23) (photo)
- All examples seen: clash in shield's lower right and in the field below the eagle's right wing
- Die cracks long the top of letters AMERI(CA), now more advanced than on the previous use of this die (WB-23) (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M2, .014"	146 reeds	Typical diameter = 1.209"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55, MS64, NGC AU58		Coins from the Randy Wiley Collection, the Dick Osburn Collection, and the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-24**



Obverse 22 (enhanced die cracks in photo at right)



Reverse T (enhanced die cracks in photo at right)

1858 WB-25

Obverse 23



- Date positioned low (photo)



- Rust lumps around the dentils from K-8 to K-11³⁰ (near stars #3-#5 shown in photo above)

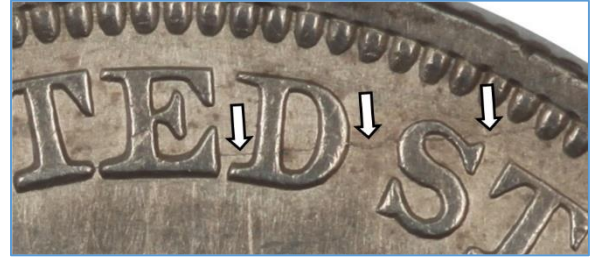


- One small and one very small die line protrude from the rock support above the (18)58 (photo)

Reverse U

Type 1 Reverse Hub

- No usable die diagnostics seen other than die cracks (See enhanced die crack diagram on the next page.)



- Die cracks thru the legend prominently thru (UNI)TED S(TATES) to the dentils (photo)
- Weak clash in shield's lower right

This is the first use of this obverse die and only use of this reverse die.

Date grid: M1.5, .016"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-25**



Obverse 23



Reverse U (enhanced die cracks in photo at right)

1858 WB-26

Obverse 23



- Date positioned low (photo)



- Rust lumps around the dentils from K-8 to K-11³⁰ (near stars #3-#5 shown in photo above), now weaker than on the previous use of this die (WB-25) but still visible
- The small die lines protruding from the rock support above the (18)58 seen on the previous use of this die (WB-25) are not now visible.

Reverse V

Type 1 Reverse Hub



- Horizontal die lines thru the upper olive bud to the eagle's left leg (photo)
- Weak clash in shield's lower right

This is the second use of this obverse die and only use of this reverse die.

Date grid: M1.5, .015"	145 reeds	Typical diameter = 1.201"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-26



Obverse 23



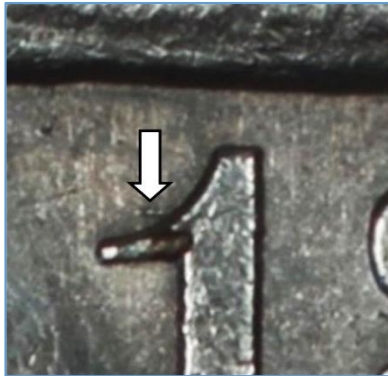
Reverse V

1858 WB-27

Obverse 24



- Date right and slightly low in the field between the rock support and the dentils (photo)



- Tine above the serif of the 1(858) (photo)
- LDS: heavy clash in the drapery and in the field to the right of the drapery

Reverse W

Type 1 Reverse Hub



- All die states: orange peel effect thru legend especially at STATES (photo)
- LDS only: clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .013"	146 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-27



Obverse 24



Reverse W

1858 WB-28

Obverse 25



- Date centered (photo)
- Die diagnostics are sparse and very weak for this obverse die.



- High grade coins only: small arching die line in the rock support behind Liberty's heel (photo)



- Tiny tine on the serif of the 1(858) (photo)

Reverse X

Type 1 Reverse Hub

- Die diagnostics are sparse and very weak for this reverse die.



- Two small lumps: one in the field to the left of the eagle's neck and another between the upper left horizontal shield lines (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .012"	146 reeds	Typical diameter = 1.208"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-28



Obverse 25



Reverse X

1858 WB-29

Obverse 26



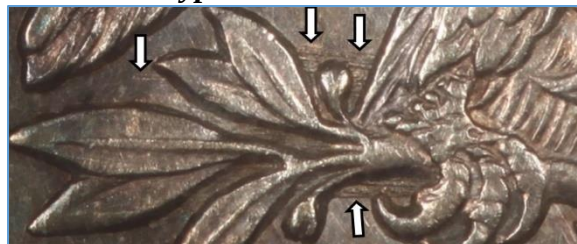
- Centered date with thick, heavy digits (photo)



- Several die lines in the rock support below Liberty's foot (photo)

Reverse Y

Type 1 Reverse Hub



- Many horizontal die lines thru the olive leaves (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M1.5, .012"	145 reeds	Typical diameter = 1.201"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-29**



Obverse 26



Reverse Y

1858			
WB-30, 18 in Shield and Rock Support			
<u>Obverse 27</u>		<u>Reverse Y</u> <i>Type 1 Reverse Hub</i>	
			
- Centered date and slanting down to right (photo)  - This blundered date has the bottoms of 18(58) punched into the shield and Liberty's hemline (photo). The base and lower upright of the 1 is in the shield and the bottom loop of the 8 is in Liberty's hemline.		- Many horizontal die lines thru the olive leaves (photo) - Multiple clash marks in the shield's lower right	
This is the only use of this obverse die and second use of this reverse die.			
Date grid: M1.5, .014"		145 reeds	Typical diameter = 1.205"
Rarity - 5			
Drapery die state: Full		Foot support: Full	Dentils: Obverse - Full; Reverse - Full
Grade of coin depicted: PCGS XF45		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1858
WB-30, 18 in Shield and Rock Support



Obverse 27



Reverse Y

1858 WB-31, Lance in Eagle

Obverse 28



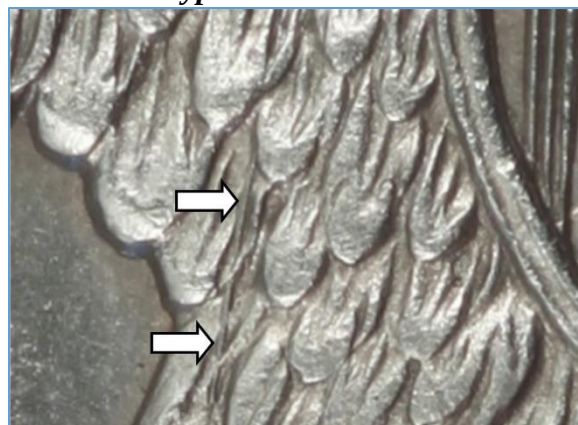
- Date left and vertically centered (photo)



- Several very weak die lines from Liberty's toe into the rock support (photo)

Reverse Z

Type 1 Reverse Hub



- Heavy vertical die line in the eagle left of the shield, resembles a lance (photo)
- Clash in shield's lower right and from the eagle's beak to the neck

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5.5, .012"	146 reeds	Typical diameter = 1.201"	Rarity - 3
Draperies die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS60		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-31, Lance in Eagle



Obverse 28



Reverse Z

1858 WB-32

Obverse 29



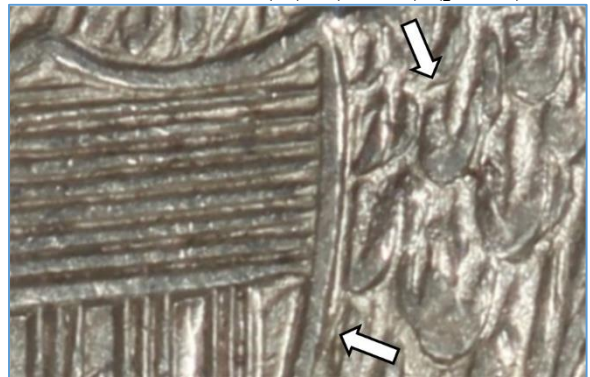
- Date far left and high (photo)
- Other than the date position, there are no die diagnostics for this obverse die.

Reverse AA

Type 1 Reverse Hub



- Small die line from eagle's left wing into field towards the (U)N(ITED) (photo)



- Two small die lines in the eagle's right wing as shown (photo)



- Rust lumps along the bottom of the denomination from K-5 to K-7 (photo)
- Clash in shield's lower right

This is the only use of this obverse die and first use of this reverse die.

Date grid: L5, .004"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-32**



Obverse 29



Reverse AA

1858 WB-33

Obverse 30



- Date centered and slanting down to the right (photo)



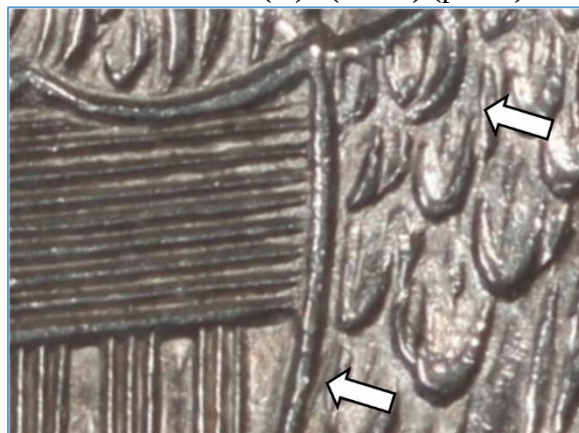
- Possible digits in the dentils directly below the 1 and below the 5 (photo)
- Die clash in the drapery and in the field to the right of the drapery
- Large rim cuds along K-1 to K-3

Reverse AA

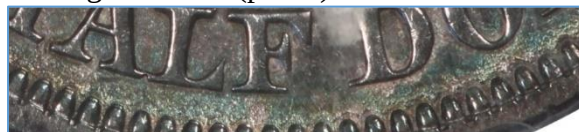
Type 1 Reverse Hub



- Small die line from eagle's left wing into field towards the (U)N(ITED) (photo)



- Two small die lines in the eagle's right wing as shown (photo)



- Rust lumps along the bottom of the denomination from K-5 to K-7 (photo)
- Clash in shield's lower right

This is the only use of this obverse die and second use of this reverse die.

Date grid: M1, .010"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-33**



Obverse 30



Reverse AA

1858 WB-34

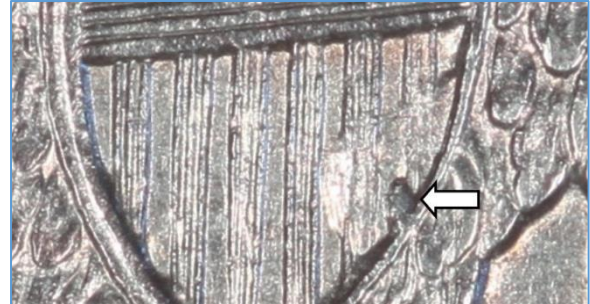
Obverse 31



- Date positioned slightly high in the field between the rock support and the dentils and slanting down to the right (photo)
- Other than the date position, there are no die diagnostics for this obverse die.

Reverse BB

Type 1 Reverse Hub



- Rare internal cud along the right inside edge of the shield (photo)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

The lone example I have seen of this die marriage has weak, washed out features. It is unknown if that is characteristic of this die marriage. Other examples are needed for study.

Date grid: M3, .004"	146 reeds	Typical diameter = 1.205"	Rarity - 5
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-34**



Obverse 31



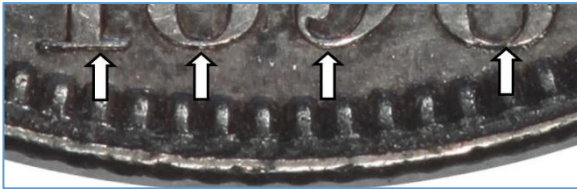
Reverse BB

1858 WB-35

Obverse 32



- Date centered (photo)



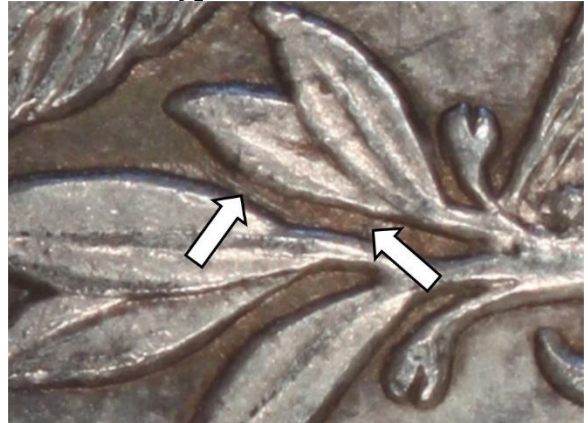
- Almost not worth mentioning, the bottoms of the 1858 show very slight repunching to the north (photo)



- Many scattered rust lumps in the fields. Shown here is the area to the right of the date (photo).
- Die clash in the field to the right of the drapery

Reverse CC

Type 1 Reverse Hub



- Small die line between olives leaves #3 and #4 (photo)



- Many scattered rust lumps in the fields. Shown here is the area to the right of the arrowheads (photo).

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .012"	146 reeds	Typical diameter = 1.209"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-35**



Obverse 32



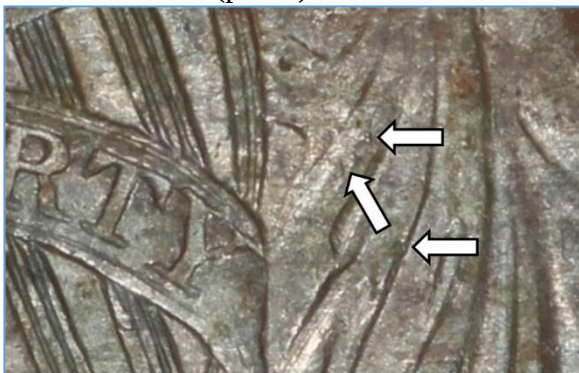
Reverse CC

1858 WB-36

Obverse 33



- Date centered (photo)



- High grade coins only: several small lumps in Liberty's gown to the right of the scroll (photo)
- Multiple die clashes in the field to the right of the drapery

Reverse DD

Type 1 Reverse Hub



- Several die lines thru (AMER)IC(A) (photo)



- Several horizontal very weak die lines thru the upper bud on the olive branch (photo)
- Die cracks thru portions of the legend and denomination (See enhanced die crack diagram on the next page.)
- Multiple clashes in shield's lower right and in the field under the eagle's right wing

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .008"	146 reeds	Typical diameter = 1.206"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1858
WB-36**



Obverse 33



Reverse DD (enhanced die cracks in photo at right)



1858 WB-37, Blundered 1

Obverse 34



- Date left and high (photo)



- This blundered date appears to have a portion of a 1 (base or flag of a 1?) in the field below the 18(58) (photo).



- Die line in Liberty's gown to the upper left of the foot (photo)

Reverse EE

Type 1 Reverse Hub

- Die diagnostics are sparse and very weak for this reverse die.



- Difficult to see: small lump on the outside of the eagle's right wing towards (AMERIC)A (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5.5, .010"	145 reeds	Typical diameter = 1.200"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1858
WB-37, Blundered 1



Obverse 34



Reverse EE

1858 WB-38, Crumbled Reverse Die

Obverse 35



- Date positioned high in the field between the rock support and the dentils (photo)
- Other than date position, die diagnostics are sparse and very weak for this obverse die.



- Several small nearly horizontal die lines under Liberty's right knee (photo)



- High grade coins only: small lump on Liberty's mid-section (photo)

Reverse FF

Type 1 Reverse Hub



- This reverse die is fascinating for its deterioration. Known as the 'crumbled die' for good reason, this die shows massive effects of stress. For lack of better description, half dollars of this die have raised splotchy blobs of crusty metal throughout the entire reverse. There is evidence of the "orange-peel" die stress surface effect in the fields and a die crack thru the right wing and shield. Shown above is the right wing and shield (photo).
- I have not seen this die marriage in an earlier die state.

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1, .008"	146 reeds	Typical diameter = 1.206"	Rarity - 5
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-38, Crumbled Reverse Die



Obverse 35



Reverse FF

1858 WB-39

Obverse 36



- Date positioned high in the field between the rock support and the dentils (photo)
- Other than date position, die diagnostics are sparse and very weak for this obverse die.
- Multiple clash marks under Liberty's elbow

Reverse GG

Type 1 Reverse Hub



- EDS-MDS: several die lines: one under the left upright of the (A)M(ERICA) and another from the upper left serif of the (AM)E(RICA) to the dentils (photo)



- LDS only: retained cud starting above UNIT(ED) (photo)
- LDS: clash in shield's lower right and under the eagle's right wing
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .010"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full to weak	Foot support: Full to weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: AU50 LDS: XF40		EDS coin from the Randy Wiley Collection LDS coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1858
WB-39



Obverse 36



Reverse GG (enhanced die cracks in photo at right)

1858 WB-40, 8 in Rock Support

Obverse 37



- Date positioned high and to the left (photo)



- The curve of the right side of an errant 8 is plainly visible in the rock support to the right of the shield tip. (photo)



- Two die lines in Liberty's foot: one in the arch to the rock support and another from the ball of her foot (photo)

Reverse HH

Type 1 Reverse Hub



- Several die lines in the shield and directly under the eagle's left wing (photo)
- LDS: clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Note. A third party graded example of this die marriage is graded and encapsulated as a Proof coin. I am unsure of the status of this die marriage as a proof coin as it could very well be one. I have seen both MS and Proof certified examples of this die marriage and both look legitimate for their status. More study is needed on this.

Date grid: L5.5, .005"	Unknown reeds	Typical diameter = Unknown"	Rarity - 5
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: NGC MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1858
WB-40, 8 in Rock Support



Obverse 37



Reverse HH

1858 WB-41, Doubled Reverse Die			
<u>Obverse 38</u> 		<u>Reverse II</u> <i>Type 1 Reverse Hub</i> 	
• Date centered (photo) • Other than date position, die diagnostics are sparse and very weak for this obverse die.		• Die doubling at K-8 on the eagle's left wing tip, UNI(TED), dentils, olive leaves (photo)	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M2.5, .014"	Unknown reeds	Typical diameter = Unknown"	Rarity - 5
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1858
WB-41, Doubled Reverse Die



Obverse 38



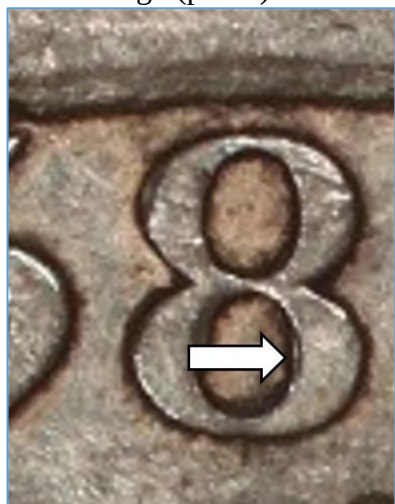
Reverse II

1858 WB-42, Doubled Reverse Die

Obverse 39



- Date left and high (photo)



- The inside bottom loop of the second 8 (185)8 is slightly repunched east (photo)
- Vertical clash lines in Liberty's drapery below the elbow

Reverse JJ

Type 1 Reverse Hub



- Die doubling at K-8 on the eagle's left wing tip, UNITED, dentils, olive leaves (photo)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5, .005"	145 reeds	Typical diameter = 1.205"	Rarity - 5
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1858
WB-42, Doubled Reverse Die



Obverse 39



Reverse JJ

1858 WB-43, Doubled Reverse Die

Obverse 40



- Date centered (photo)



- Two small die lines in Liberty's gown to the upper left of the shield tip (photo)

Reverse KK

Type 1 Reverse Hub



- Very minor die doubling on the eagle's left wing tip (photo)



- Die defect from the inside of the eagle's left wing towards olive leaf #5 (photo)
- Clash in shield's lower right
- LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .010"	Unknown reeds	Typical diameter = Unknown"	Rarity - 5
Drapery die state: Weak to Full	Foot support: Weak to Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU58 CAC		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1858
WB-43, Doubled Reverse Die



Obverse 40



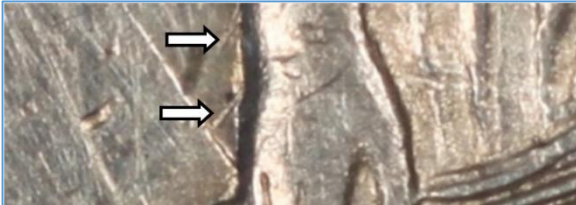
Reverse KK (enhanced die cracks in photo at right)

1858 WB-44, Type 2 Reverse

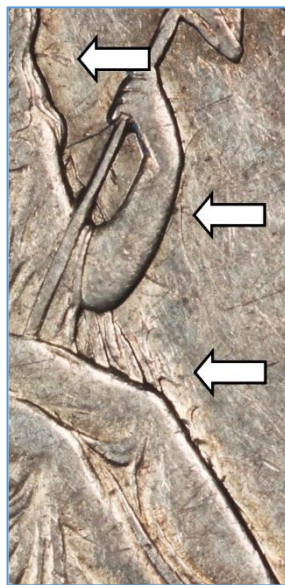
Obverse 41



- Date (photo)

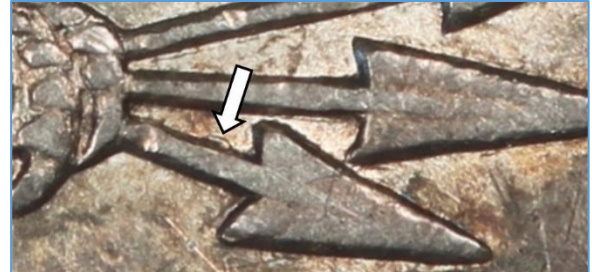


- Two small die lines from Liberty's left wrist (photo). Note: the NW-SE line in photo is a clash mark.
- Almost all examples seen have strong clashes in right field, along Liberty's right arm and leg. (photo)
This die apparently clashed very early in its use. Note also that the reverse die used with this clashed obverse is not clashed and must have been used with another reverse die, not now known.



Reverse LL

Type 2 Reverse Hub



- Small lump on shaft of lowest arrow (photo)

This is the only use of this obverse die and only use of this reverse die.
LDS examples have a reverse rotated clockwise 10°.

Date grid: M1, .012"	146 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-110.			Version ISA.CS

1858
WB-44, Type 2 Reverse



Obverse 41



Reverse LL

1858 WB-45, Type 2 Reverse

Obverse 42



- Centered date and slanting slightly down to right (photo)



- Small lump in the drapery next to the shaft (photo)

Reverse MM

Type 2 Reverse Hub

- No usable die diagnostics seen other than die cracks
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right and beneath the eagle's right wing

This is the first use of this obverse die and only use of this reverse die.

Date grid: M3, .012"	146 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-110.			Version ISA.CS

1858
WB-45, Type 2 Reverse



Obverse 42



Reverse MM (enhanced die cracks in photo at right)

1858 WB-46, Type 2 Reverse

Obverse 43



- Date (photo)



- “Crud” along the staff’s shaft (photo)



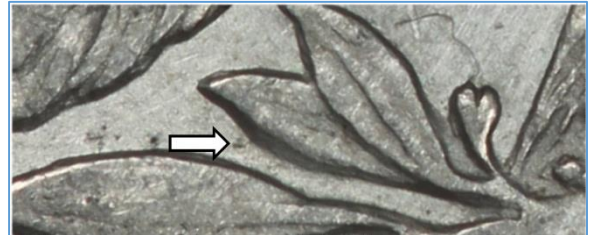
- “Orange peel effect” around the inside circumference and fields (photo of Liberty’s head area above; around date photo far above)

Reverse NN

Type 2 Reverse Hub



- Small lump on the underside of the (UNI)T(ED) (photo)



- EDS only: small lump between olive leaves #3 and #4 (photo)
- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3, .012”	146 reeds	Typical diameter = 1.204”	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Bill Bugert Collection EDS coin from the Randy Wiley Collection	
Cross reference: WB-110.			Version ISA.CS

1858
WB-46, Type 2 Reverse



Obverse 43



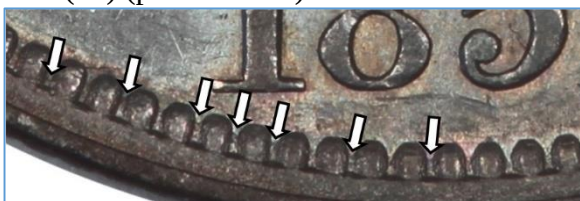
Reverse NN (enhanced die cracks in photo at right)

1858 WB-47, Type 2 Reverse

Obverse 44



- Date with thick and heavy numerals (photo). Note: either this die was not completely finished or there may be digits in the dentils below and to the left of the 18(58) (photo below).



- No other usable die diagnostics seen

Reverse NN

Type 2 Reverse Hub



- Small lump on the underside of the (UNI)T(ED) (photo)
- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Some examples have a reverse rotated clockwise 10°.

Date grid: M3, .010"	146 reeds	Typical diameter = 1.209"	Rarity - 4
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-110.			Version ISA.CS

1858
WB-47, Type 2 Reverse



Obverse 44



Reverse NN (enhanced die cracks in photo at right)

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1859

After a huge minting of 1858 half dollars, the Mint reduced the coinage in 1859 to 18% that of the previous year. Fewer 1859 half dollars are available on the market but their cost is still relatively inexpensive and more on the level of the more common 1858 half dollar. Finding a fully struck, original 1859 half dollars of almost any grade is not very difficult.

With this reduced mintage also comes fewer die marriages. Unfortunately, other than two reverse hubs and a single doubled reverse die, there is little to attract attention to this date.

Eleven die marriages are known as depicted in the tables below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies		Circulation Strike Reed Counts Known
747,200	11	8	Type 1	Type 2	2 (145, 146)
			8	3	

A coin's date position is extremely helpful in identifying individual die marriages. For 1859 half dollars, all the date placements are very similar so extra care must be used in making accurate measurements. The following table may be useful.

1859 date grid quick reference table

Obverse die date grid	Die Marriage
M1, .022"	WB-10
M1, .022"	WB-11
M1.5, .024"	WB-1
M1.5, .028"	WB-9
M1.5, .032"	WB-4
M2, .026"	WB-2
M2, .026"	WB-3
M2.5, .016"	WB-5
M3, .022"	WB-7
M3, .022"	WB-8
M3, .026"	WB-6

1859 Die Characteristics.

- All 1859 half dollars are from Master Die 1, Type 1 or Type 2 working hub.
- Like 1858, strongly struck 1859 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- For lack of or a minimum of obvious die characteristics, many dies can be very difficult to distinguish especially in lower circulated grades.
- Die clashes including multiple die clashes are common.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads
- Die wear and/or periodic die maintenance (polishing) weakened the lower edge of the rock support above the date on some coins.

Reverse hubs. Introduced in 1858 at the Philadelphia Mint, dies from the Type 2 reverse hub were used in 1859 as well as dies from the older Type 1 reverse hub. Dies from both of these hubs are easily distinguishable by studying the die characteristics below.



Type 1 reverse hub ([photo at left](#)). Previously, the Type 1 hub was used on Liberty Seated half dollars and is readily identified by the short base on the letter (H)A(L)F and the lack of a lump along the eagle's left leg.



Type 2 reverse hub ([photo at right](#)). The Type 2 reverse is easily identified by the long base on the letter (H)A(L)F and a diagnostic lump along the eagle's left leg.

1859 Half Dollar Date Positions

Obverse 1, WB-1	Obverse 2, WB-2, WB-3	Obverse 3, WB-4
Obverse 4, WB-5	Obverse 5, WB-6	Obverse 6, WB-7, WB-8
Obverse 7, WB-9	Obverse 8, WB-10, WB-11	

Lump near the date's 1. 1859 has four obverse dies with a small lump near the serif of the 1(859). Some collectors think this is a repunched date. I am not convinced but think it may be a date alignment residue. In any case, close up images of the lumps on the four dies are depicted below for comparison and ease of identification.



WB-4
Obverse 3
M1.5, .032"
Lump very close to 1



WB-6
Obverse 5
M3, .026"
Lump high and outside
of 1's serif



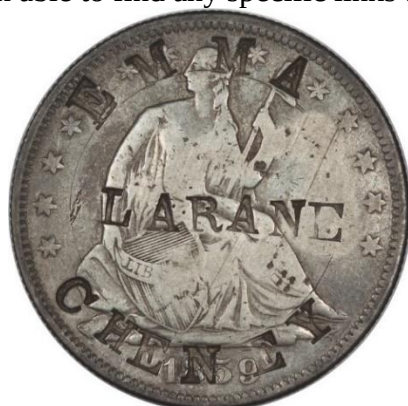
WB-7, WB-8
Obverse 6
M3, .022"
Lump slightly right of
end of 1's serif



WB-9
Obverse 7
M1.5, .028"
Lump near 1

1859 Half Dollar Exonumia. Occasionally, collectors find counterstamped Liberty Seated half dollars. Most collectors I know have little interest in them and view them as damaged coins. However, for those of you interested in a personal historic tie, they may be for you.

Shown here are two 1859 half dollars with counterstamps that appear to memorialize person(s), a location on one and a date on another. Backgrounds or origins of these are unknown as I have not been able to find any specific links to persons past or present.



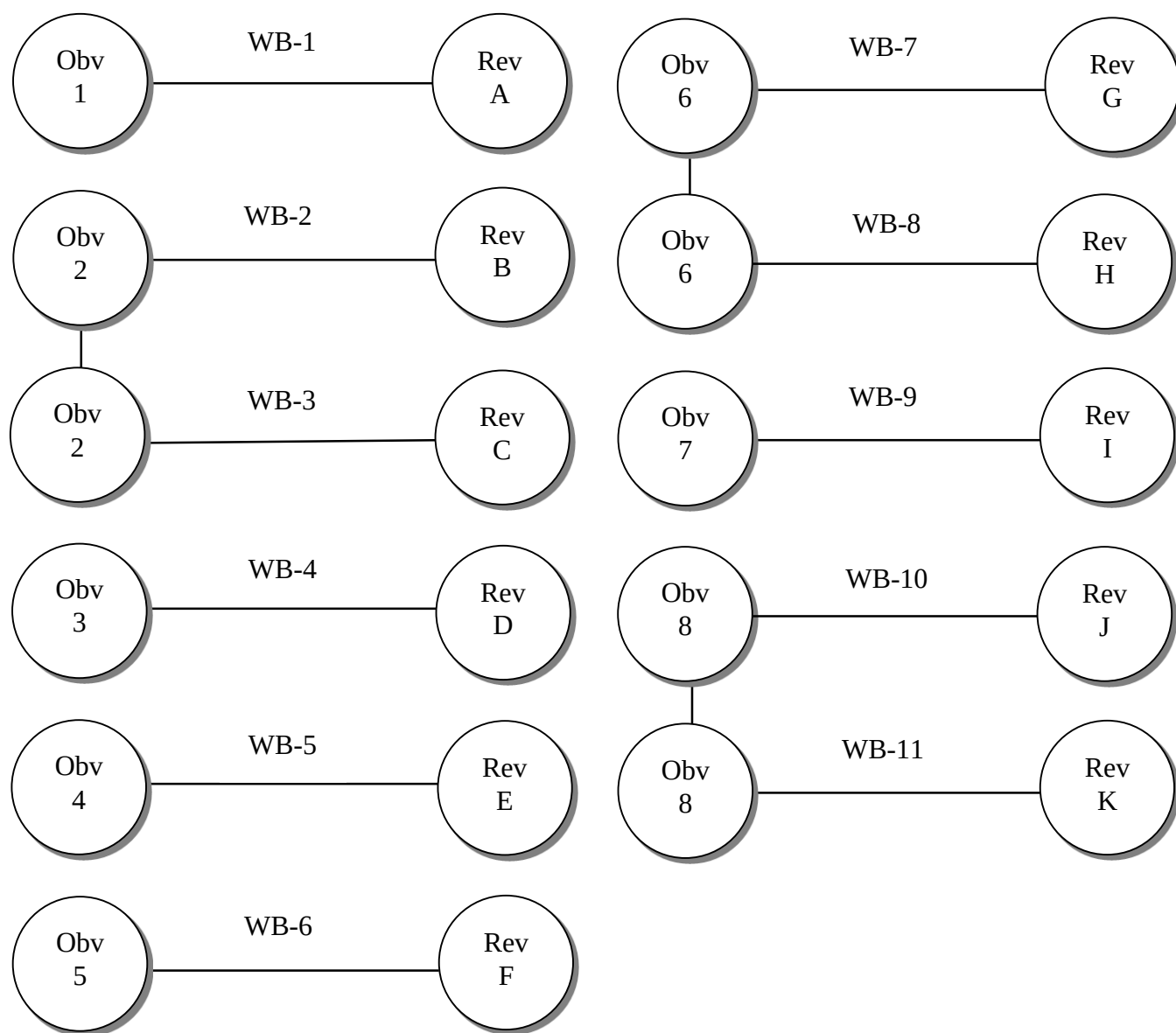
1859 half dollar
Obv: "EMMA LARANE CHENEY"
Rev: "JAMES RIVER"
Possible WB-9



1859 half dollar
Obv: "J.B - TO L.M.D" "DEC 29"
Rev: no counterstamp
Possible WB-7

1859 Half Dollar Obverse and Reverse die identification keys		Small die line in shield	No usable die diagnostics seen	Few usable die diagnostics seen	Deteriorating doubled die around arrowheads	Orange peel effect	Small lump on the shaft of the lower arrow	Die defects above (ST)ATES	Horizontal die lines in the shield's upper right into the eagle's right wing	No usable die diagnostics seen except die cracks	Weak bottoms of vertical shield lines C1-3	Die line in the dentils below D(OL)
		A	B	C	D	E	F	G	H	I	J	K
		Type 1	Type 1	Type 2	Type 1	Type 1	Type 2	Type 1	Type 2	Type 1	Type 1	Type 1
Diagonal die lines from the rock support	1	WB-1										
No usable die diagnostics seen	2		WB-2	WB-3								
Die line under the elbow	3				WB-4							
Die lines and lumps in shield	4					WB-5						
Lump in the field to the upper left of 1	5						WB-6					
Lump in the field to the upper left of 1	6							WB-7	WB-8			
Tiny lump in the field to the upper left of 1	7									WB-9		
Heavy clash in drapery	8										WB-10	WB-11

1859 Half Dollar Die Linkage Diagram



1859 WB-1

Obverse 1



- Centered date (photo)



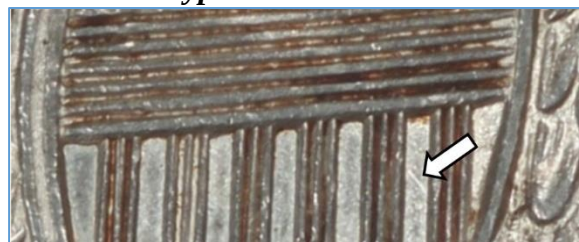
- Many diagonal (NW to SE) die lines from the rock support above the date (photo above) and in/along the drapery and along Liberty's shin and leg (photo below)



- Die line into the rock support from Liberty's heel (photo)

Reverse A

Type 1 Reverse Hub



- Small diagonal (NW to SE) die line in the reverse shield between shield vertical lines E3-F1 (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .024"	146 reeds	Typical diameter = 1.206"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-1



Obverse 1



Reverse A

1859 WB-2

Obverse 2



- Centered Date (photo)
- No usable die diagnostics seen other than the date position

Reverse B

Type 1 Reverse Hub

- No usable die diagnostics seen

This is the first use of this obverse die and only use of this reverse die.

Date grid: M2, .026"	145 reeds	Typical diameter = 1.200"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-2



Obverse 2



Reverse B

1859 WB-3, Type 2 Reverse

Obverse 2



- Centered Date (photo)



- Tiny diagonal die line in Liberty's drapery under the elbow (photo)
- Few usable die diagnostics seen other than the date placement

Reverse C

Type 2 Reverse Hub



- Very few non-die state diagnostics to identify this reverse die except for a tiny die line in the void of the tail feathers to the left of the outside shield lines between the 4th and 5th horizontal shield lines (photo)
- Weak tail feathers to the left of the horizontal shield lines (photo above)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M2, .026"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1859
WB-3, Type 2 Reverse



Obverse 2



Reverse C

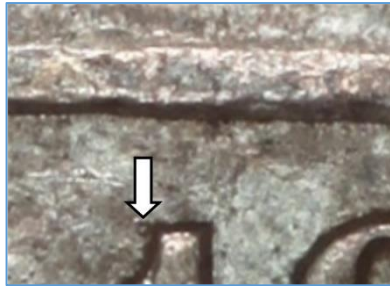
1859

WB-4, Deteriorating Doubled Die Reverse

Obverse 3



- Date low in the field between the rock support and the dentils (photo)



- Tiny lump off the upper left edge of the 1(859) (photos above and far above)

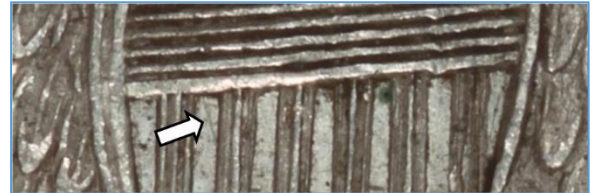


- Nearly horizontal die line in the drapery below Liberty's elbow (photo)

Reverse D

Type 1 Reverse Hub

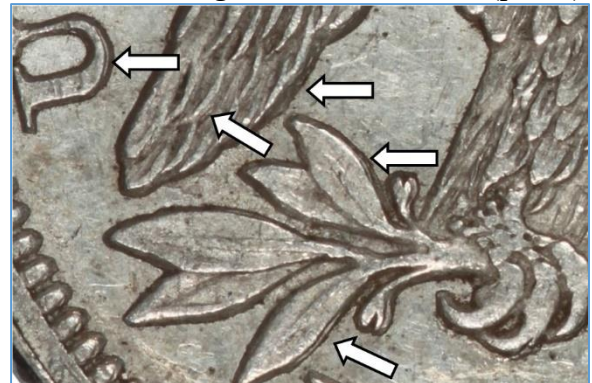
- This die has a lot going on. It is starting to fail and appears as crumbling areas around the arrowheads. It is also a slightly doubled die with doubling showing plainly at K-7 (see photos below).



- Small diagonal (NW to SE) die line in the upper reverse shield between shield lines A3 and B1 (photo)



- Die crumbling around arrowheads (photo)



- Die doubling at K-7 (photo) but also on other portions of the reverse (not shown)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .032"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1859

WB-4, Deteriorating Doubled Die Reverse



Obverse 3



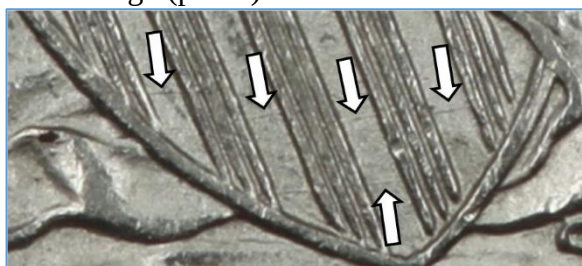
Reverse D

1859 WB-5, Crumbling Reverse Die

Obverse 4



- Date high (photo)



- Several horizontal die lines in the lower portion of the shield (photo)



- Several very small lumps in the recessed areas of the shield below (L)IB(ERTY) (photo)

Reverse E

Type 1 Reverse Hub

- This reverse die is starting to deteriorate. Orange peel effect is prevalent on the fields under the legend and the eagle's upper wing tips are starting to crumble.



- Upper right wing crumbling (photo)



- Orange peel effect beneath (STA)TES O (photo)



- Small lump on the lower edge of the (HAL)F (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .016"	146 reeds	Typical diameter = 1.209"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-5, Crumbling Reverse Die



Obverse 4



Reverse E

1859 WB-6, Type 2 Reverse

Obverse 5



- Centered date (photo)



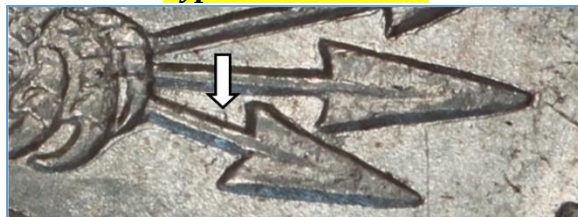
- Tiny lump in the field to the upper left of the 1(859) (photos above and far above)



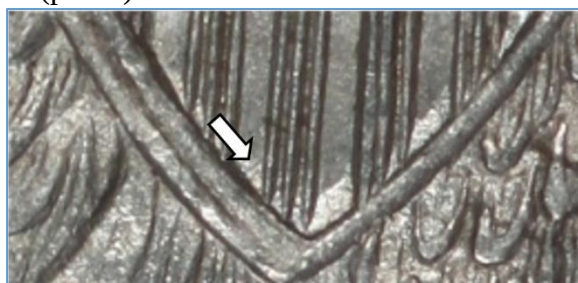
- Weak die lines thru stars 1 and 2 and another from the dentils to star 1 (photo)

Reverse F

Type 2 Reverse Hub



- Small lump on the shaft of the lower arrow (photo)



- Small diagonal die line in the shield between vertical shield lines B3 to C1 (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M3, .026"

146 reeds

Typical diameter = 1.204"

Rarity - 3

Drapery die state: Full

Foot support: Weak

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: MS62

Coin from the Randy Wiley Collection

Cross reference: WB-102.

Version ISA.CS

1859
WB-6, Type 2 Reverse



Obverse 5



Reverse F (enhanced die cracks in photo at right)

1859 WB-7

Obverse 6



- Date (photo)



- Tiny lump in the field to the upper left of the 1(859) (photos above and far above)

Reverse G

Type 1 Reverse Hub



- Die defects above (ST)ATES that radiate from between the dentils to the legend (photo). I have observed these on two coins of different die states.
- LDS only: This reverse die has the most advanced die cracks of any of the 1859 die marriages. Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the first use of this obverse die and only use of this reverse die.

Note: this die marriage with obverse 6 has a different reed count than the second use of this obverse (WB-8).

Date grid: M3, .022"	145 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1859
WB-7**



Obverse 6



Reverse G (enhanced die cracks in photo at right)

1859 WB-8, Type 2 Reverse

Obverse 6



- Date (photo)

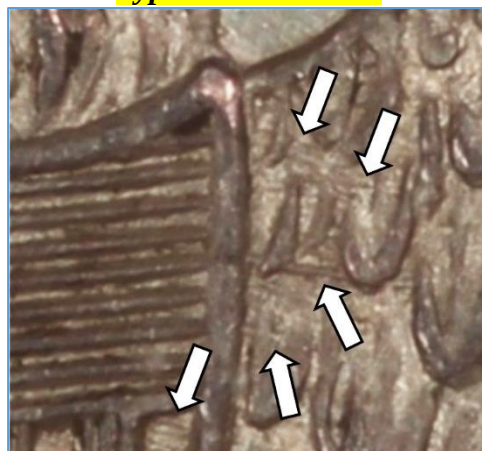


EDS Lump by 1 LDS, No Lump by 1

- EDS only: tiny lump in the field to the upper left of the 1(859) (photos above and far above). This lump disappears in MDS to LDS coins.
- EDS-LDS: heavy clash marks in the drapery and in the field off Liberty's knee

Reverse H

Type 2 Reverse Hub



- Many nearly horizontal die lines in the shield's upper right into the eagle's right wing (photo)

This is the second use of this obverse die and only use of this reverse die.

Note: this die marriage with obverse 6 has a different reed count than the previous use of this obverse (WB-7).

Date grid: M3, .022"	146 reeds	Typical diameter = 1.208"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS - PCGS AU55 LDS - AU55		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1859
WB-8, Type 2 Reverse



Obverse 6



Reverse H

1859 WB-9

Obverse 7



- Centered date slanting slightly up to the right (photo)



- Tiny lump in the field to the upper left of the 1(859) (photos above and far above)

Reverse I

Type 1 Reverse Hub

- No useable die diagnostics seen
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

One proof die marriage (of the three for 1859) were struck from these dies.

Date grid: M1.5, .028"	146 reeds	Typical diameter = 1.202"	Rarity - 3
Draperies die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-9



Obverse 7



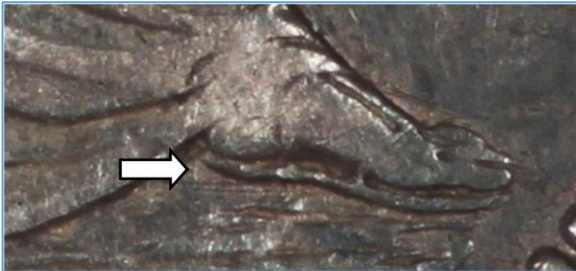
Reverse I (enhanced die cracks in photo at right)

1859 WB-10

Obverse 8



- Centered date (photo)



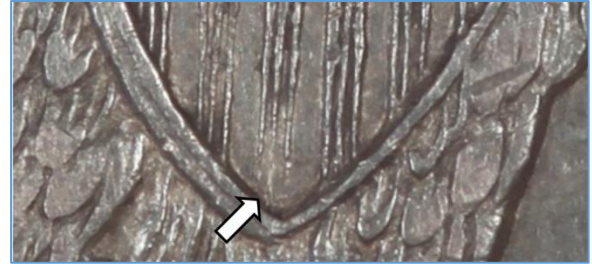
- Small vertical die line behind Liberty's heel (photo)



- Very heavy clash in drapery and in the field by Liberty's elbow helps to identify this die.

Reverse J

Type 1 Reverse Hub



- Likely die state dependent but still usable, the bottoms of vertical shield lines C1-3 are weak. (photo)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M1, .022"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted:		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-10



Obverse 8



Reverse J

1859 WB-11

Obverse 8



- Centered date (photo)



- Small vertical die line behind Liberty's heel now much weaker than on the previous use of this die (WB-10) (photo)



- Very heavy clash in drapery and in the field by Liberty's elbow helps to identify this die.



- Die line thru star 10 (photo) not seen on the previous use of this die (WB-10)

Reverse K

Type 1 Reverse Hub

- Few usable die diagnostics seen



- Small die line in the dentils below D(OL) (photo)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M1, .022"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1859
WB-11



Obverse 11



Reverse K

1860

Again in 1860, the U.S. Mint reduced its mintage of half dollars. At the time of this writing, the values for 1860 half dollars are on par with 1858 and 1859 half dollars but they should be higher. There are two reverse hub Types in 1860 and variances on the (O)F on some of the dies which make for interesting collecting. This date is often available but finding a decent high grade problem free coin will take some searching as will finding all the die marriages.

Nine die marriages are known as depicted in the tables below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
302,700	9	7	8	3 (144, 145, 146)

Most 1860 dates are positioned nearly identically and recording accurate date grid measurements have merit to aid in differentiating the working dies and die marriages. The table below lists the various date positions for the nine die marriages.

1860 date grid quick reference table

Obverse die date grid	Die Marriage
M1, .031"	WB-4
M1, .034"	WB-5
M1, .036"	WB-3
M1, .028"	WB-9
M1.5, .030"	WB-1
M1.5, .030"	WB-2
M1.5, .030"	WB-6
M1.5, .030"	WB-7
M1.5, .032"	WB-8

1860 Die Characteristics.

- All 1860 half dollars are from reverse Master Die 1, Type 1 or Type 2 working hubs. Two reverse dies have the Type 1 hub while 6 have the Type 2 hub.
- Like 1858 and 1859, strongly struck 1860 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- For lack of or a minimum of obvious die characteristics, many dies can be very difficult to distinguish especially in lower circulated grades.
- Die clashes including multiple die clashes are uncommon.
- Die cracks are uncommon for this date. With a relatively low mintage and 7 obverse and 8 reverse, minting was light so dies did not crack from excessive use.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1860 Half Dollar Date Positions

		
Obverse 1, WB-1, WB-2	Obverse 2, WB-3	Obverse 3, WB-4
		
Obverse 4, WB-5	Obverse 5, WB-6, WB-7	Obverse 6, WB-8
		
Obverse 7, WB-9		

Different appearance of the Type 2 (O)F. The (O)F on the Type 2 hubbed working dies has three different appearances on 1860 half dollars. The (O)F is hubbed onto the working dies but something happened likely with the working hub at the Mint to alter the appearances of the working dies. The images below depict the three different appearances of the (O)F from the same hub. It is worth noting these differences for die identification. Type 1 reverse (O)Fs have a complete serif.

(O)F Variances on 1860 Half Dollar Type 2 Reverses



Complete serif
(serif repaired on the
working hub?)

WB-5



Broken serif

WB-1, WB-4, WB-6, WB-7,
WB-9



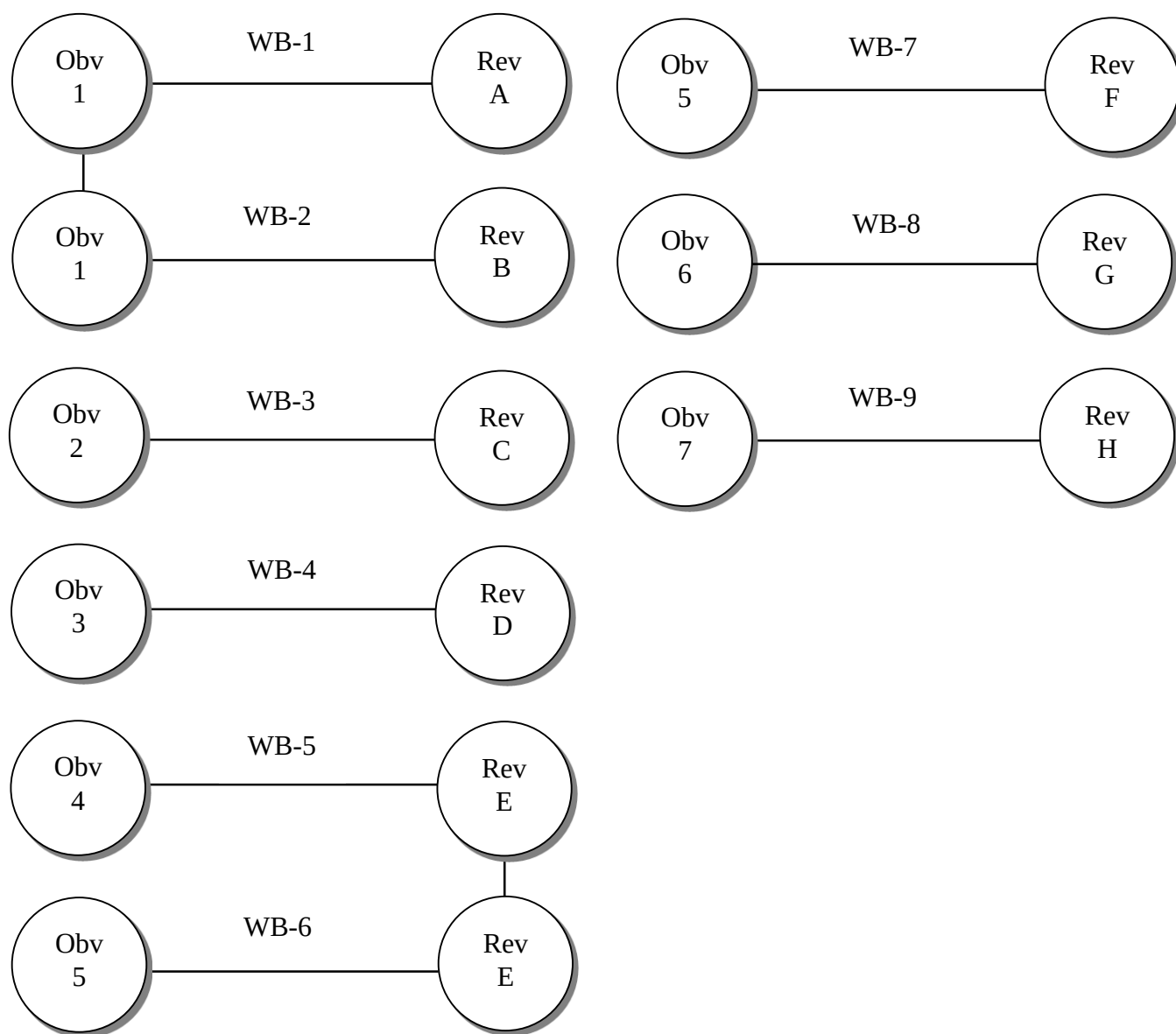
Missing serif

WB-8

Note: WB-2 and WB-3 have a Type 1 reverse with a complete serif of (O)F.

1860 Half Dollar Obverse and Reverse die identification keys		Small lumps in the upper serif and in the field above the (AMER)I(CA)	Die lines in the eagle's tail feathers above the olive branch	Vertical and horizontal shield lines both extend into the other	No usable die diagnostics seen	Small lump in the eagle's left wing across from 5 th horizontal line from bottom; the 3 rd horizontal die line extends into the outer shield	Die lines from the eagle's left leg into the field and thru the olive bud	Missing upper left serif on the (O)F	Broken upper left serif on the (O)F
		A	B	C	D	E	F	G	H
		Type 2	Type 1		Type 2				
Die line connects the rock support and the rock	1	WB-1	WB-2						
Tiny lump off the upper left edge of the 1(860)	2			WB-3					
Tiny lump connected to the top left of the 1(860)	3				WB-4				
Date low	4					WB-5			
Date nearly centered in the field and slanting slightly down to the right	5					WB-6	WB-7		
Tiny tine off the upper left edge of the 1(860)	6							WB-8	
Tiny tine from the top of the upper left of the 1(860)	7								WB-9

1860 Half Dollar Die Linkage Diagram



1860 WB-1

Obverse 1



- Date slightly low (photo)



- Tiny lump in the recessed area of the shield below (LIB)E(RTY) (photo)



- Diagonal die line connecting the rock support and the rock (photo)

Reverse A

Type 2 Reverse Hub



- Small lumps in the upper serif and in the field above the (AMER)I(CA) (photo)



- Diagonal die line thru (AM)E(RICA) (photo)



- LDS only: noticeable cut in the shield between the outer shield line and A-1-A-2 (photo above)
- All die states seen: weak left wing tail feathers adjacent the horizontal shield lines (photo above)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M1.5, .030"

145 reeds

Typical diameter = 1.208"

Rarity - 3

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: EDS: AU55
LDS: XF40

EDS coin from the Randy Wiley Collection
LDS coin from the Bill Bugert Collection

Cross reference: WB-102.

Version ISA.CS

**1860
WB-1**



Obverse 1



Reverse A

1860 WB-2, Type 1 Reverse

Obverse 1



- Date slightly low (photo)



- Tiny lump in the recessed area of the shield below (LIB)E(RTY) (photo)



- Diagonal die line connecting the rock support and the rock (photo)

Reverse B

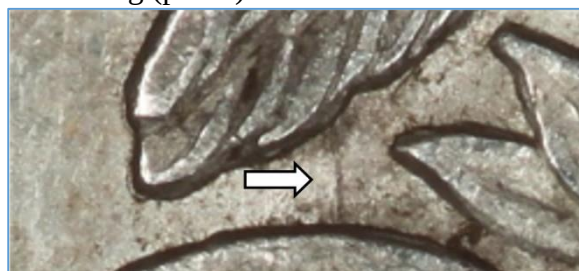
Type 1 Reverse Hub



- Die lines in the eagle's tail feathers above the olive branch (photo)



- Faint nearly vertical die line in the eagle's left wing (photo)



- Die line connecting olive leaf #3 and the eagle's left wing near the tip (photo)

This is the second use of this obverse die and only use of this reverse die.



This die marriage has a rare 144 reed count cracked collar. The collar is cracked from K-7 to K-2 when observed from the reverse. K-8 thru K-10 is shown in the photo at right. This crack created what I call a bi-level collar because it has a two levels.

Date grid: M1.5, .030"	144 reeds	Typical diameter = 1.209"	Rarity - 4
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.		Version ISA.CS	

1860
WB-2, Type 1 Reverse



Obverse 1



Reverse B

1860 WB-3, Type 1 Reverse

Obverse 2



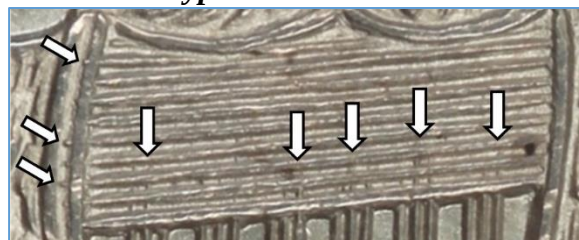
- Low date slanting up slightly up to the right (photo)



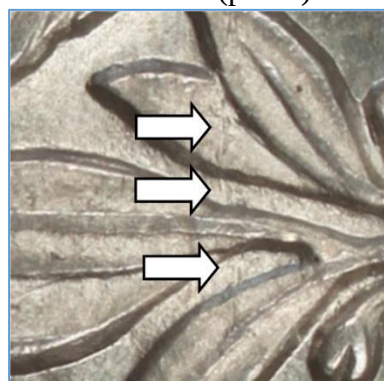
- Tiny lump off the upper left edge of the 1(860) (photos above and far above)

Reverse C

Type 1 Reverse Hub



- Vertical and horizontal shield lines both extend into the other (photo)



- MS coins only: vertical die line thru the olive leaves (photo)

This is the only use of this obverse die and only use of this reverse die.
One example seen with a reverse rotated 15° CCW.

Date grid: M1, .036"	EDS: 145 reeds LDS: 146 reeds	Typical diameter = 1.202"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: PCGS AU58 CAC LDS: MS60		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1860
WB-3, Type 1 Reverse



Obverse 2



Reverse C

1860 WB-4

Obverse 3



- Date slightly low in the field between the dentils and rock support (photo)



- Tiny lump connected to the top left of the 1(860) (photos above and far above)

Reverse D

Type 2 Reverse Hub

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1, .031"	146 reeds	Typical diameter = 1.209"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

**1860
WB-4**



Obverse 3



Reverse D

1860 WB-5

Obverse 4



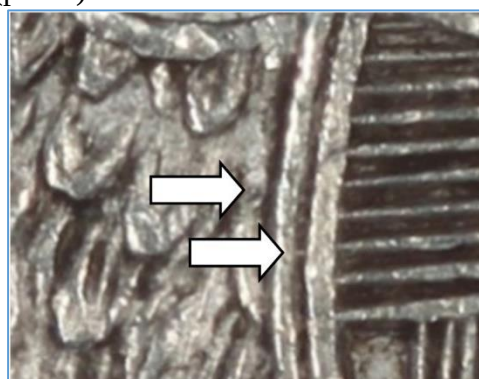
- Date low in the field between the dentils and rock support(photo)
- No usable die diagnostics seen other than date position

Reverse E

Type 2 Reverse Hub



- Complete upper left serif of the (O)F. This letter may have been repaired as it shows signs of being disturbed. This is the only Type 2 reverse that has this appearance. (photo)



- Small lump in the eagle's left wing across from 5th horizontal line from bottom; the 3rd horizontal die line extends into the outer shield (photo)

This is the only use of this obverse die and first use of this reverse die.

The 1860 proof die marriage was struck from these dies.

There is a possibility that the reverse die is a doubled die. Multiple examples seen have the same doubling, too dramatic for hub doubling. More study is needed on this die marriage.

Date grid: M1, .034"	146 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

**1860
WB-5**



Obverse 4



Reverse E

1860 WB-6

Obverse 5



- Date nearly centered in the field and slanting slightly down to the right (photo)



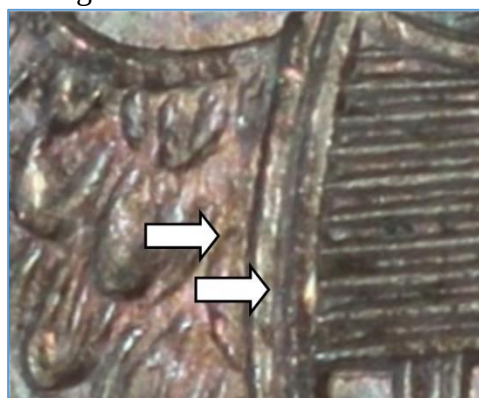
- Two small faint die lines in the rock support below Liberty's foot (photo)
- Few usable die diagnostics seen other than date position

Reverse E

Type 2 Reverse Hub



- Broken upper left serif of the (O)F. (photo)
In the previous use of this die (WB-5), the (O)F is complete. The repaired serif of the O(F) may have partially filled in on the working die for this die marriage after WB-5 was struck or WB-5 was struck before WB-6. More study is needed on these die marriages.



- Small lump in the eagle's left wing across from 5th horizontal line from bottom; the 3rd horizontal die line extends into the outer shield (photo)

This is the first use of this obverse die and second use of this reverse die.

There is a possibility that the reverse die is a doubled die. Multiple examples seen have the same doubling, too dramatic for hub doubling. More study is needed on this die marriage.

Date grid: M1.5, .030"	145 reeds	Typical diameter = 1.207"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

**1860
WB-6**



Obverse 5



Reverse E

1860 WB-7

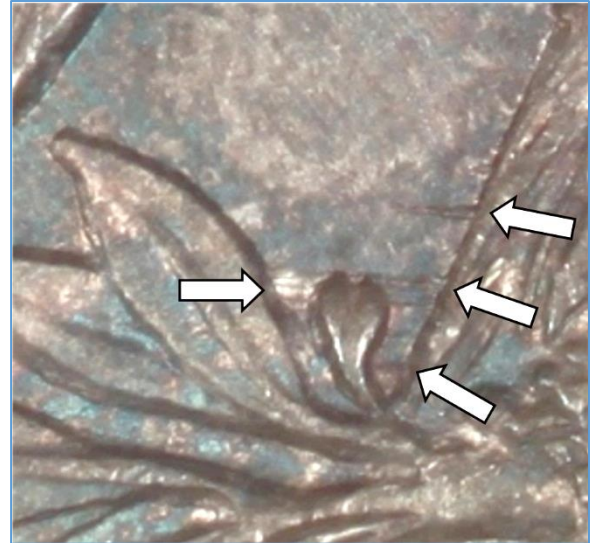
Obverse 5



- Date nearly centered in the field and slanting slightly down to the right (photo)
- The two small faint die lines in the rock support below Liberty's foot seen in the previous use of this die (WB-6) are not now visible.
- Few usable die diagnostics seen other than date position

Reverse F

Type 2 Reverse Hub



- Horizontal die lines from the eagle's left leg into the field and thru the olive bud (photo lightened)
- Broken upper left serif of the (O)F

This is the second use of this obverse die and only use of this reverse die.

Date grid: M1.5, .030"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS64		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

**1860
WB-7**



Obverse 5



Reverse F

1860 WB-8

Obverse 6



- Date (photo)



- Tiny tine off the upper left edge of the 1(860) (photo)
- EDS-MDS only: rim cud below date (photo)

Reverse G

Type 2 Reverse Hub



- Missing upper left serif on the (O)F (photo). This is the only die in 1860 with this feature.

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .032"	145 reeds	Typical diameter = 1.203"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU50, XF45		Coins from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

**1860
WB-8**



Obverse 6



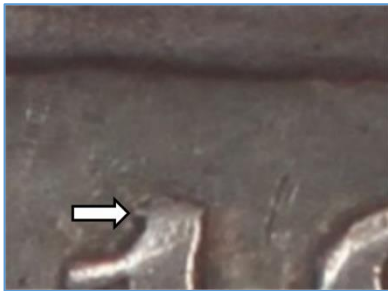
Reverse G

1860 WB-9

Obverse 7



- Date low in the field between the dentils and rock support (photo)



- Very tiny tine from the top of the upper left of the 1(860) (photo)



- Horizontal die line under the arch of Liberty's foot (photo)

Reverse H

Type 2 Reverse Hub



- Broken upper left serif on the (O)F (photo)



- Vertical die line along the outside upper edge of the shield (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1, .028"

146 reeds

Typical diameter = 1.207"

Rarity - 4

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: XF40

Coin from the Bill Bugert Collection

Cross reference: WB-102.

Version ISA.CS

**1860
WB-9**



Obverse 7



Reverse H

1861

This date is the first year of the American Civil War and the last year that silver circulated freely in the eastern United States. 1861 is a date with very poor die diagnostics and attributing them especially in low grades will be a challenge. Fortunately, most 1861 half dollars are higher grade because the survivors were likely hoarded close to time of minting. Twenty-four die marriages with few major varieties to attract attention are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
2,887,400	24	23	24	6 (143, 145, 146, 150, 152, 153)

With very poor die diagnostics for 1861, the date placement is important in attributing die marriages. The table below may be very useful.

1861 date grid quick reference table

Obverse die date grid	Die Marriage
L5.5, .022"	WB-15
M1, .024"	WB-2
M1, .025"	WB-1
M1.5, .016"	WB-18
M1.5, .024"	WB-12
M1.5, .026"	WB-21
M1.5, .028"	WB-8
M2, .022"	WB-13
M2.5, .024"	WB-23
M2.5, .034"	WB-3
M3, .011"	WB-4
M3, .028"	WB-5
M3, .029"	WB-9
M3.5, .022"	WB-16
M3.5, .024"	WB-19
M3.5, .026"	WB-14
M3.5, .028"	WB-10
M3.5, .028"	WB-22
M3.5, .028"	WB-24
M3.5, .030"	WB-17
M3.5, .032"	WB-6
M4, .020"	WB-7
M4, .025"	WB-11
M4, .026"	WB-20

1861 Die Characteristics.

- All 1861 reverse dies are from Master Die 1, Type 2 reverse.
- This date has some of poorest die identification markers in the entire Liberty Seated half dollar series. Consequently, attributing them will be very difficult with low grade coins being impossible to properly attribute. The date placement of each die will be extremely important and may be your only method of variety attribution.
 - It is worthwhile mentioning here that, under sufficient magnifications (i.e., 30 power), all dies are distinguishable. However, listing die diagnostics that are not viewable with a 10 power hand magnifier is impractical. I only list those diagnostics I can see easily see but I do use a stereo microscope to identify dies.
- Most 1861 half dollars have a heavily outlined eagle, a so-called “halo.” This is not unusual and I think it was a result of poorly or incompletely finished working dies.
- Strongly struck 1861 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty’s head) are less common.
- Reverse die cracks are common for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty’s chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1861 half dollars placed on President Lincoln corpse. As was the contemporary custom, coins were placed on President Lincoln’s eyes upon his death. As related in a *Gobrecht Journal*⁵ article, Joseph Scheidler relates his and Tom DeLorey’s efforts to investigate the actual coins now in the Chicago Historical Society. The article is well worth reading from a historical and investigative viewpoint as Joe and Tom studied the half dollars and determined they were 1861 Philadelphia Mint half dollars. Tom compared the edge reeding and determined they were 1861-P half dollar (reverses were not available for study). Not currently identified as a specific 1861 half dollar die marriage, knowing the actual die marriage would also be interesting but that is left for another time.

⁵ Scheidler, Joseph M. “The Day Miss Liberty Closed Abe Lincoln’s Eyes.” *Gobrecht Journal* 22.66 (July 1996): 21-26.

1861 Half Dollar Date Positions



Obverse 1, WB-1, WB-2



Obverse 2, WB-3



Obverse 3, WB-4



Obverse 4, WB-5



Obverse 5, WB-6



Obverse 6, WB-7



Obverse 7, WB-8



Obverse 8, WB-9



Obverse 9, WB-10



Obverse 10, WB-11



Obverse 11, WB-12



Obverse 12, WB-13



Obverse 13, WB-14



Obverse 14, WB-15



Obverse 15, WB-16

1861 Half Dollar Date Positions (Continued)



Obverse 16, WB-17



Obverse 17, WB-18



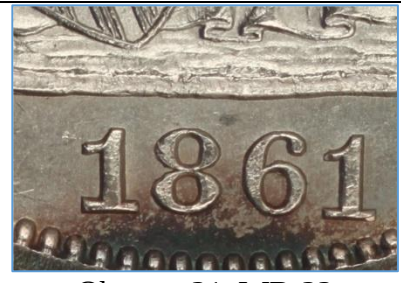
Obverse 18, WB-19



Obverse 19, WB-20



Obverse 20, WB-21



Obverse 21, WB-22



Obverse 22, WB-23



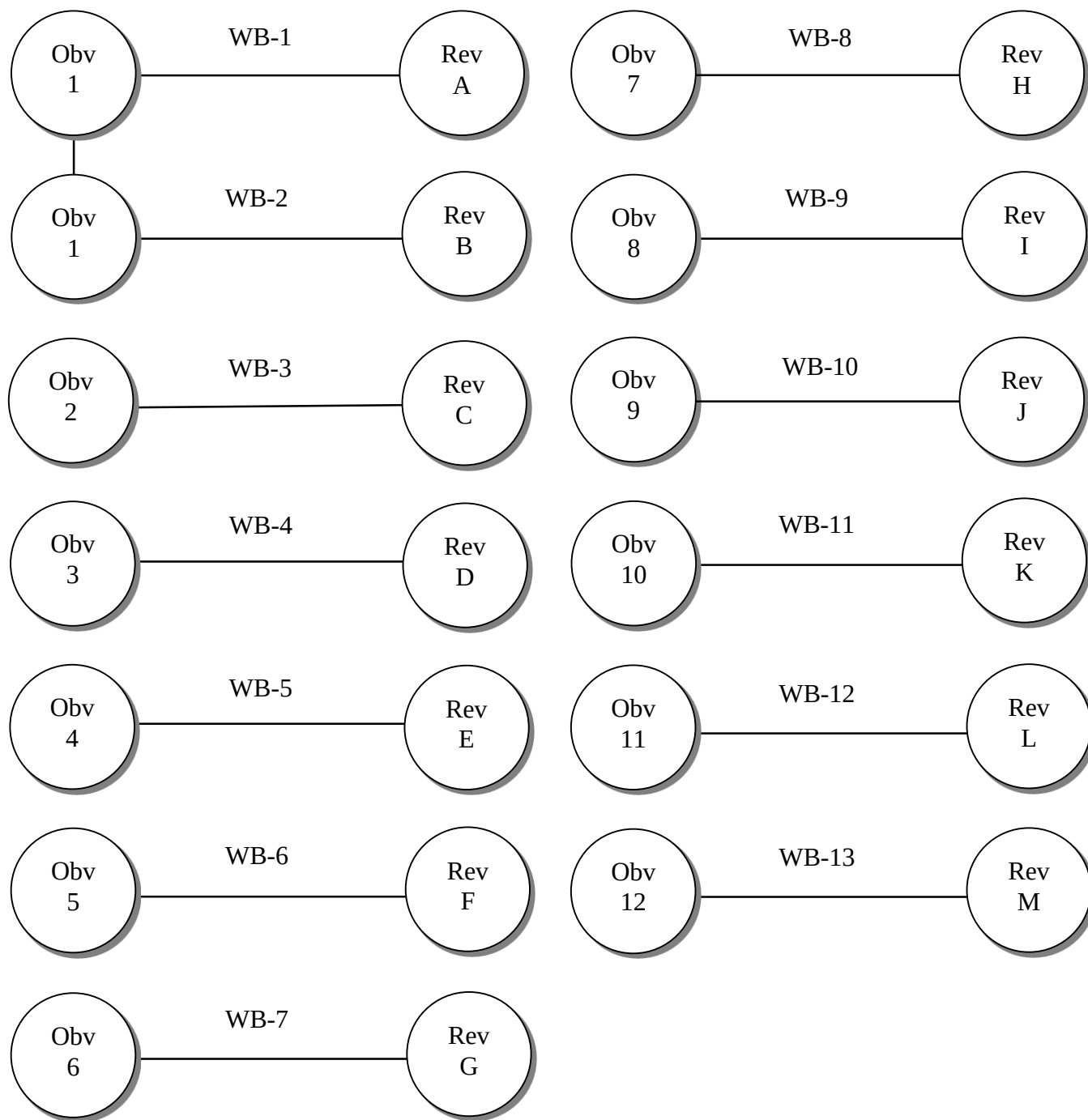
Obverse 23, WB-24

1861 Half Dollar Obverse and Reverse die identification keys		Die cracks along the base of the denomination	Die lines in the reverse shield's lower right	No usable diagnostics seen	Die lines in the reverse shield's lower right	No usable diagnostics seen	No usable diagnostics seen	No usable diagnostics seen	Small lump along the lower edge of the olive stem	No usable diagnostics seen
		A	B	C	D	E	F	G	H	I
Die lines in the rock support behind Liberty's heel	1	WB-1	WB-2							
Date low	2			WB-3						
No usable die diagnostics	3				WB-4					
Date slants down to right	4					WB-5				
Extended Liberty's sandal lines	5						WB-6			
Die lines above the ribbon	6							WB-7		
No usable die diagnostics	7								WB-8	
Date slanting up to the right	8									WB-9

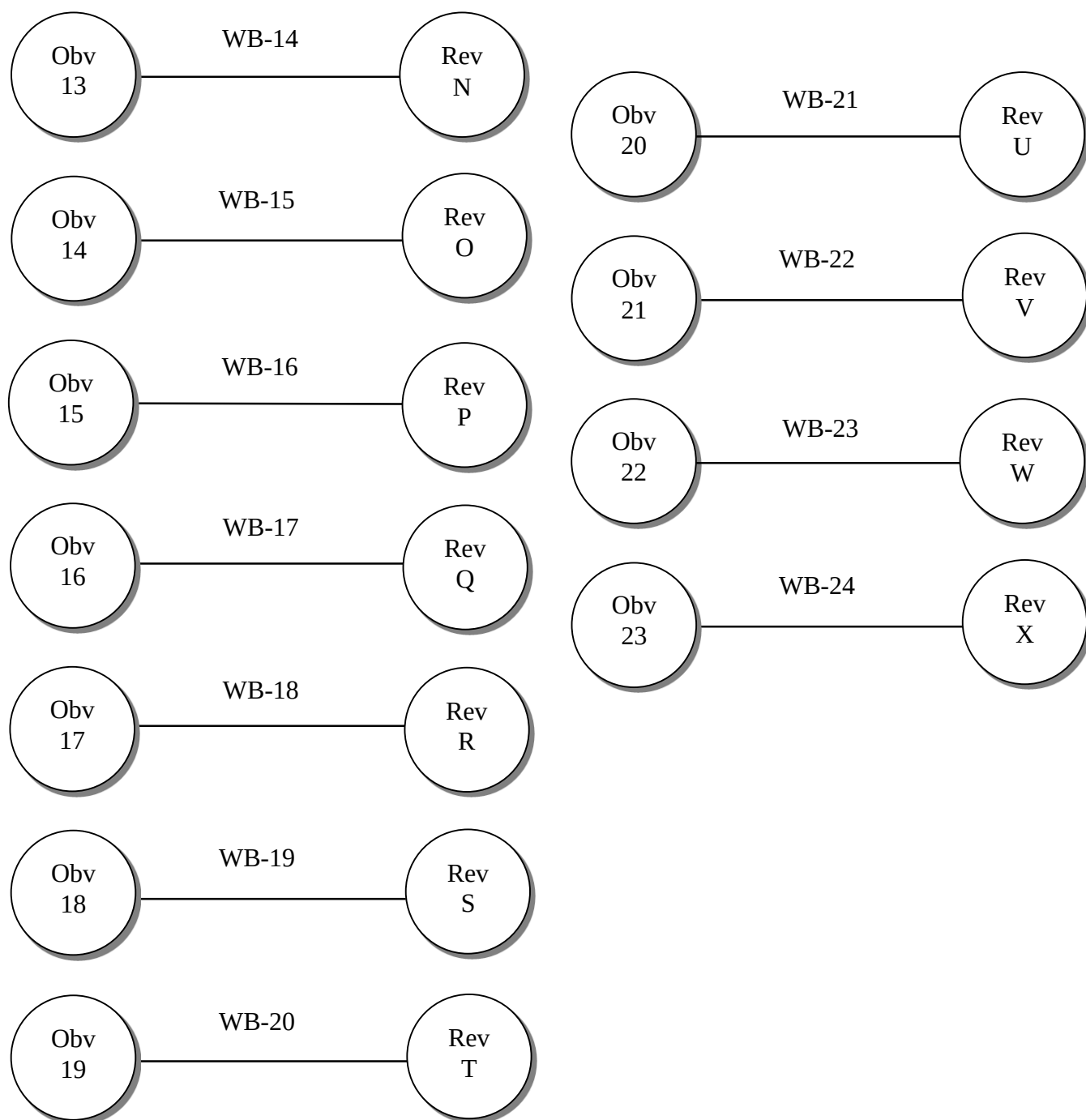
1861 Half Dollar Obverse and Reverse die identification keys (continued)		Die lines in the feathers on the eagle's left leg	Lumps on the outside edge of the eagle's right wing	No usable die diagnostics	Doubled Die	No usable die diagnostics	Lumps on the eagle's left leg	Doubled Die	Die line sin eagle's tail feathers
		J	K	L	M	N	O	P	Q
Lump into the left field from Liberty's forearm	9	WB-10							
Repunched 1	10		WB-11						
Date slants slightly down to the right	11			WB-12					
No usable die diagnostics	12				WB-13				
Lump above the end of the left serif of the 1	13					WB-14			
Die lines in the shield above (LIBER)TY	14						WB-15		
Date slanting up	15							WB-16	
Die line in the shield's below L(IBERTY)	16								WB-17

1861 Obverse and Reverse die identification keys (continued)		Die lines in the eagle's tail feathers	Die lines in the eagle's neck feathers	No usable die diagnostics	No usable die diagnostics	No usable die diagnostics	Die lines in the shield's lower right	No usable die diagnostics
		R	S	T	U	V	W	X
No usable die diagnostics	17	WB-18						
No usable die diagnostics	18		WB-19					
Tine to the upper left of the flag of the 1 st 1	19			WB-20				
Tine above the flag of the 1 st 1	20				WB-21			
Lump in Liberty's gown behind the heel	21					WB-22		
Possible errant digits dentils below the date	22						WB-23	
No usable die diagnostics	23							WB-24

1861 Half Dollar Die Linkage Diagram



1861 Half Dollar Die Linkage Diagram (Continued)



1861 WB-1

Obverse 1



- Date centered (photo)



- Two horizontal die lines in the rock support behind Liberty's heel; another small line along the foot arch (photo)
- Die cracks at K-12 (See enhanced die crack diagram on the next page.)

Reverse A



- Die cracks along the base of denomination with the die cracks crumbling the die below (HAL)F D(OL) (photo)
- (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M1, .025"	150 reeds	Typical diameter = 1.209"	Rarity - 4
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: AU53	Coin from the Randy Wiley Collection
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Cross reference: WB-101.	Version ISA.CS
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**1861
WB-1**



Obverse 1 (enhanced die cracks in photo at right)



Reverse A (enhanced die cracks in photo at right)

1861 WB-2

Obverse 1



- Date centered (photo)



- Two horizontal die lines in the rock support behind Liberty's heel; another small line along the foot arch (photo)
- Die cracks at K-12 and along base of the date (See enhanced die crack diagram on the next page.)

Reverse B



- Many prominent diagonal (NE to SW) die lines in the reverse shield's lower right (photo). These die lines appear similar to those seen on WB-4 but they are slightly different.

This is the second use of this obverse die and only use of this reverse die.

Date grid: M1, .024"	153 reeds	Typical diameter = 1.201"	Rarity - 4
Drapery die state: Partial	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-2**



Obverse 1 (enhanced die cracks in photo at right)



Reverse B

1861 WB-3

Obverse 2



- Date low (photo)
- Clash below Liberty's elbow
- No usable die diagnostics seen other than the date position and the die cracks (See enhanced die crack diagram on the next page.)

Reverse C

- Clash in shield's lower right
- No usable die diagnostics seen other than die cracks (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .034"	153 reeds	Typical diameter = 1.203"	Rarity - 3
Draperies die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-3**



Obverse 2 (enhanced die cracks in photo at right)



Reverse C (enhanced die cracks in photo at right)

1861 WB-4

Obverse 3



- Date high (photo)
- No usable die diagnostics seen other than date position

Reverse D



- Many prominent diagonal (NE to SW) die lines in the reverse shield's lower right (photo). These die lines appear similar to those seen on WB-2 but they are slightly different.

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .011"	145 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-4**



Obverse 3



Reverse D

1861 WB-5

Obverse 4



- Date slants down to right and the 2nd 1 is low (photo)



- Several diagonal (NE to SW) die lines from Liberty's heel into the rock support (photo enhanced)
- The obverse die shows light roughness on Liberty most likely from die rust.

Reverse E

- No usable die diagnostics other than die cracks
- Clash in shield's lower right
- MDS-LDS: die cracks thru legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .028"	153 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: MS60 LDS: XF45		EDS coin from the Randy Wiley Collection LDS coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-5**



Obverse 4



Reverse E (enhanced die cracks in photo at right)

1861 WB-6

Obverse 5



- Date low (photo)



- Liberty's sandal lines are extended into the right field near the dentils. (photo)

Reverse F

- No usable die diagnostics seen other than die cracks
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

As interesting sidenote, the depicted coin was dug near the Fredericksburg, VA battlefield in June 1988 and was most likely carried by and lost by a soldier in the December 1862 battle.

Date grid: M3.5, .032"	153 reeds	Typical diameter = 1.210"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-6**



Obverse 5



Reverse F (enhanced die cracks in photo at right)

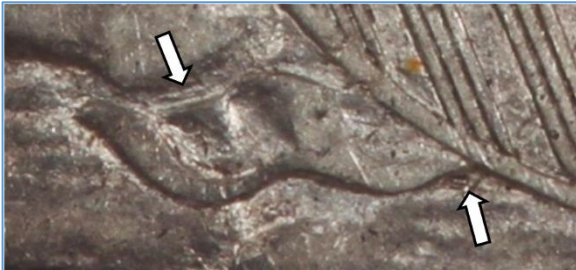


1861 WB-7

Obverse 6



- Date centered (photo)



- Die lines above the ribbon and below near the shield (photo)

Reverse G

- No usable die diagnostics other than die cracks
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .020"	152 reeds	Typical diameter = 1.200"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-7**



Obverse 6



Reverse G (enhanced die cracks in photo at right)

1861 WB-8

Obverse 7



- Date centered (photo)
- No usable die diagnostics seen other than date position

Reverse H



- Small lump along the lower edge of the olive stem (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .028"

145 reeds

Typical diameter = 1.206"

Rarity - 3

Dravery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: XF45

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

**1861
WB-8**



Obverse 7



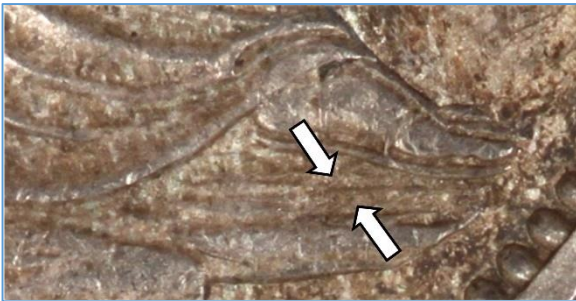
Reverse H (enhanced die cracks in photo at right)

1861 WB-9

Obverse 8



- Date centered and slanting up to the right (photo)



- Diagonal (NE to SW) die lines in the rock support below Liberty's foot (photo). These lines are difficult to see on the depicted coin because of the mottled toning.

Reverse I

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .029"	153 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-9**



Obverse 8



Reverse I

1861 WB-10

Obverse 9



- Date centered (photo)



- Small lump into the left field from Liberty's forearm (photo)



- Vertical die line into the rock support from Liberty's arch (photo)

Reverse J



- Two small die lines in the feathers on the eagle's left leg (photo)



- Small die line in the eagle's tail feathers near the lower arrow feathers (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .028"

145 reeds

Typical diameter = 1.206"

Rarity - 3

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: AU55

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

**1861
WB-10**



Obverse 9



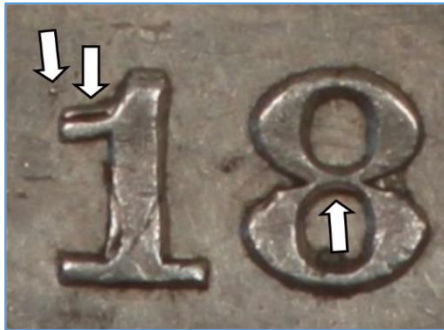
Reverse J (enhanced die cracks in photo at right)

1861 WB-11, Repunched 1

Obverse 10



- Date (photo)



- The entire date is repunched but the repunching is plainly visible to the naked eye; the digits 61 require high magnification to see it. There is also a small lump to the upper left of the serif of the 1st 1. (photo)



- Two small die lines under Liberty's right knee (photo)

Reverse K



- Several small lumps on the outside edge of the eagle's right wing (photo)
- Die cracks along the legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

This die marriage has a rare 143 reed count edge.

Date grid: M4, .025"	143 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1861
WB-11, Repunched 1



Obverse 10



Reverse K (enhanced die cracks in photo at right)

1861 WB-12

Obverse 11



- Date slants slightly down to the right (photo)



- Faint die line in the shield below the (LI)BE(RTY) (photo)

Reverse L

- No usable die diagnostics other than die cracks
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .024"	153 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-12**



Obverse 11



Reverse L (enhanced die cracks in photo at right)

1861 WB-13, Doubled Die Reverse			
<u>Obverse 12</u>  • Date centered (photo) • No usable die diagnostics seen other than date position		<u>Reverse M</u>  • Doubled die reverse with the tops of the letters UNITE(D) showing the most doubling (photo)	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M2, .022"	152 reeds	Typical diameter = 1.201"	Rarity - 4
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1861
WB-13, Doubled Die Reverse



Obverse 12



Reverse M

1861 WB-14

Obverse 13



- Date slants up to the right (photo)



- Small lump above the end of the left serif of the 1 (photos above)
- Die crack along the base of the date (See enhanced die crack diagram on the next page.)

Reverse N

- No usable die diagnostics other than die cracks
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .026"	152 reeds	Typical diameter = 1.203"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS60		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-14**



Obverse 13 (enhanced die cracks in photo at right)



Reverse N (enhanced die cracks in photo at right)

1861 WB-15

Obverse 14



- Date left (photo)



- Short die lines in the recessed area of the shield above (LIBER)TY (photo)



- Small lumps in the rock support and Liberty's gown below/above the gown loops (photo)
- Die cracks thru stars (See enhanced die crack diagram on the next page.)

Reverse O



- Small lumps on the eagle's left leg below the Type 2 diagnostic lump (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5.5, .022"	153 reeds	Typical diameter = 1.209"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: MS62	Coin from the Randy Wiley Collection
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Cross reference: WB-101.	Version ISA.CS
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**1861
WB-15**



Obverse 14 (enhanced die cracks in photo at right)



Reverse O

1861

WB-16, Doubled Die Reverse

Obverse 15



- Date centered slanting up slightly to the right (photo)
- No usable die diagnostics seen other than date position and die cracks (See enhanced die crack diagram on the next page.)

Reverse P



- Previously thought to be bounce doubling, I believe this to be a weak doubled die with the letters UNITED showing the doubling (photo). Another high grade example of this die marriage is needed for study.
- Die cracks thru legend (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .022"	152 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1861
WB-16, Doubled Die Reverse



Obverse 15 (enhanced die cracks in photo at right)



Reverse P (enhanced die cracks in photo at right)

1861 WB-17

Obverse 16



- Date slightly low (photo)



- Die line in the shield's recessed area below L(IBERTY) (photo)

Reverse Q



- Several small die lines in the eagle's tail feathers above the olive stem/left claw (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .030"	153 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-17**



Obverse 16



Reverse Q (enhanced die cracks in photo at right)

1861 WB-18

Obverse 17



- Date slightly low (photo)
- No usable die diagnostics seen other than die cracks (See enhanced die crack diagram on the next page.)

Reverse R



- Several die lines in the eagle's tail feathers between the arrow feathers (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .016"

153 reeds

Typical diameter = 1.205"

Rarity - 3

Draperies die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: MS60

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

**1861
WB-18**



Obverse 17 (enhanced die cracks in photo at right)



Reverse R (enhanced die cracks in photo at right)

1861 WB-19

Obverse 18



- Date centered (photo)
- No usable die diagnostics seen other than date position

Reverse S



- Three horizontal die lines in the eagle's neck feathers above the shield tip (photo)
- Die cracks thru legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"	153 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VF30		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-19**



Obverse 18



Reverse S (enhanced die cracks in photo at right)



1861 WB-20

Obverse 19



- Date slanting up to right (photo)



- Small tine to the upper left of the flag of the 1st 1 (photo)

Reverse T

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .026"	Unknown reeds	Typical diameter = Unknown"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS VF35		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-20**



Obverse 19



Reverse T

1861 WB-21

Obverse 20



- Date centered (photo)



- Small tine above the flag of the 1st 1 (photo)

Reverse U

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .010"	Unknown reeds	Typical diameter = Unknown"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Weak; Reverse - Full	
Grade of coin depicted:		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-21**



Obverse 20



Reverse U

1861 WB-22

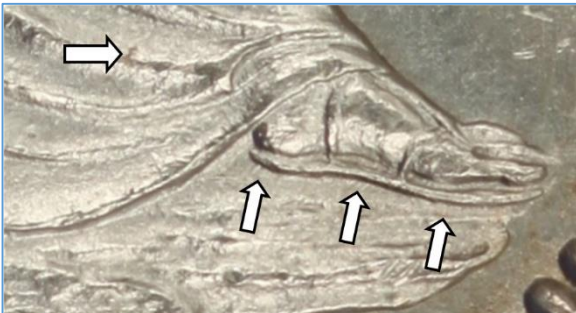
Obverse 21



- Date slants sharply down to the right (photo)



- Minute repunching on the 18 (61) with the flag of the 1 showing repunching and the lower left of the upper loop of the 8 (photo)



- Small lump in Liberty's gown behind the heel and faint die lines from Liberty's sandal into the rock support (photo)

Reverse V

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .028"	153 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-22**



Obverse 21 (enhanced die cracks in photo at right)



Reverse V

1861 WB-23

Obverse 22



- Date centered (photo)

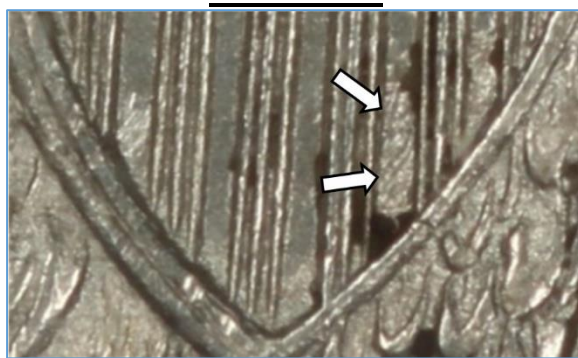


- Possible errant digits in the dentils below the date (photo)



- Many scattered die lines in and on Liberty's foot and rock support (photo)
- Die cracks around the stars and below the date (See enhanced die crack diagram on the next page.)

Reverse W



- Several die lines in the shield's lower right (photo)
- Die cracks around the circumference (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .024"	Unknown reeds	Typical diameter = Unknown"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-23**



Obverse 22 (enhanced die cracks in photo at right)



Reverse W (enhanced die cracks in photo at right)

1861 WB-24

Obverse 23



- Date centered (photo)
- No usable die diagnostics seen other than date position

Reverse X

- No usable die diagnostics seen other than the very weak bisecting die crack (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .028"	Unknown reeds	Typical diameter = Unknown"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: ANACS SWH 2858841 EF45-Details, Partial Collar		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1861
WB-24**



Obverse 23



Reverse X (enhanced die cracks in photo at right)

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1862

1862 is the second year of the War and first year of drastically reduced mintage. With a low mintage, with large silver coinage exports, and contemporary hoarding, this is a better date but often not treated as such.

Five die marriages are known as depicted in the tables below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
253,000	5	5	5	3 (151, 152, 153)

1862 date positions are different enough to readily assist in differentiating the die marriages. The date position can be extremely helpful and the following table is useful.

1862 date grid quick reference table

Obverse die date grid	Die Marriage
L5, .014"	WB-4
M2, .022"	WB-1
M3, .024"	WB-5
M3.5, .024"	WB-2
M4.5, .030"	WB-3

1862 Half Dollar Date Positions

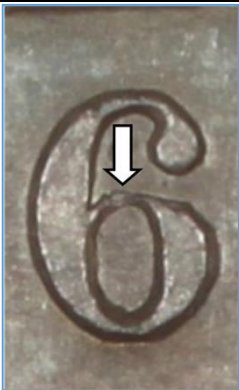
		
Obverse 1, WB-1	Obverse 2, WB-2	Obverse 3, WB-3
		
Obverse 4, WB-4	Obverse 5, WB-5	

1862 Die Characteristics.

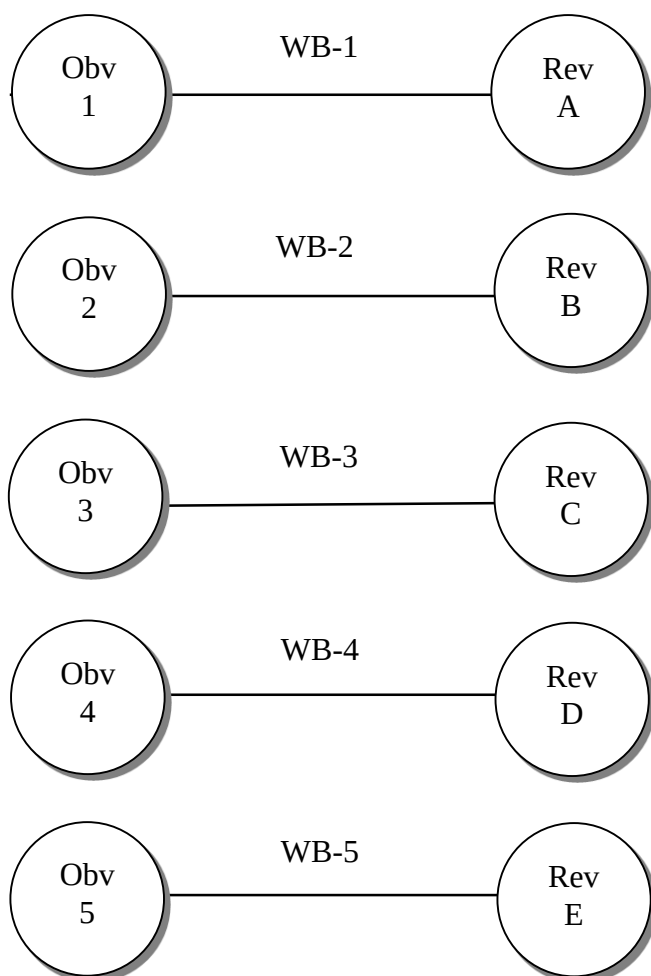
- All 1862 reverse dies are from Master Die 1, Type 2 working hub.
- Strongly struck 1862 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- For lack of or a minimum of obvious die characteristics, many dies can be very difficult to distinguish especially in lower circulated grades.
- Die clashes including multiple die clashes are uncommon.
- Die cracks are uncommon for this date. With a relatively low mintage and 5 obverse and 5 reverse, minting was light so dies did not crack from excessive use.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1862 Half Dollar Obverse and Reverse die identification keys		No usable die diagnostics seen	Vertical die lines under eagle's left wing	No usable die diagnostics seen	Die lines / unfinished die area above the eagle's left wing	Scattered rust lumps throughout the reverse fields
		A	B	C	D	E
Line in dentils between stars #5-6	1	WB-1				
Die line in the field to the right of Liberty's hair	2		WB-2			
Die line along Liberty's sandal into the rock support below the ball of the foot	3			WB-3		
Date high and left	4				WB-4	
Die line in the recessed area to the right of Liberty's arm	5					WB-5

Style of 6. As with 1862-S half dollars, the 1862 date logotype punch had appearance differences with the 6 in the date. Three variations of the 6 can be found on 1862 half dollars.

		
Unbroken and possibly repaired upper loop of the 6 in the date	Broken and weak upper loop of the 6 in the date	Normal 6
WB-3	WB-1, WB-5	WB-2, WB-4

1862 Half Dollar Die Linkage Diagram



1862 WB-1

Obverse 1



- Centered date (photo)



- Broken 6 in date (photo)



- Die line in dentils along edge between stars #5-6 (photo)

Reverse A

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

This obverse die was paired with a different reverse die for the 1862 half dollars proofs.

Date grid: M2, .022"	EDS - 152 reeds LDS - 153 reeds	Typical diameter = 1.200"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: PCGS AU50 CAC LDS: AU58		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1862
WB-1**



Obverse 1



Reverse A

1862 WB-2

Obverse 2



- Centered date (photo). Note the normal 6 in the date.

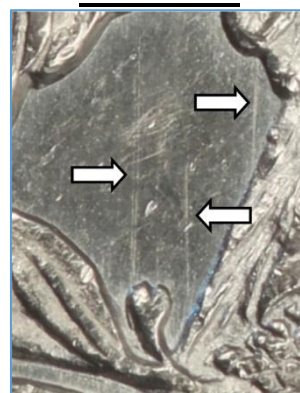


- Prominent die line in the field to the right of Liberty's hair (photo)



- Line in Liberty's gown to the right of the pole (photo)

Reverse B



- Vertical die lines under the eagle's left wing (photo)
- Clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"	EDS - 152 reeds LDS - 153 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: AU58 LDS: XF45		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1862
WB-2**



Obverse 2



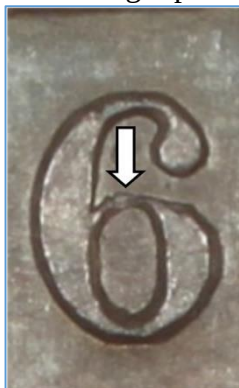
Reverse B

1862 WB-3

Obverse 3



- Low and right positioned date (photo)



- Unbroken and possibly repaired upper loop of the 6 (photo above left)
- LDS only: heavy clash marks along Liberty's right arm, drapery, and leg (photo above right)



- Die line along Liberty's sandal into the rock support below the ball of the foot (photo)

Reverse C

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4.5, .030"	152 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: PCGS MS62 LDS: MS60		EDS coin from the Randy Wiley Collection LDS coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1862
WB-3**



Obverse 3



Reverse C

1862 WB-4

Obverse 4



- Date high and left (photo). Note the Normal 6 in date.



- Die line in dentils below the left end of the rock support (photo)
- Clash in the drapery below Liberty's elbow and in the field to the left and right of Liberty

Reverse D



- Very prominent diagonal (NE to SW) die lines / unfinished die area above the eagle's left wing (photo)
- Clash in shield's lower right



- Interesting squared off dentils (photo above showing dentils below (H)ALF D(OL)) and heavily outlined devices (see full sized photo on next page) indicate this die was not completely or improperly finished before use.

This is the only use of this obverse die and only use of this reverse die.

Date grid: L5, .014"	152 reeds	Typical diameter = 1.205"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1862
WB-4**



Obverse 4



Reverse D

1862 WB-5

Obverse 5



- Centered date (photo). Note the broken and weak upper loop of the 6.



- Arching die line in Liberty's skirt line to the left of the loop (photo)



- Near vertical die line in the recessed area to the right of Liberty's left arm (photo)

Reverse E



- Scattered rust lumps throughout the reverse fields prominently at UNITED (photo above and full sized photo on the next page)



- Die line in the dentils below (HA)L(F) (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .024"	152 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1862
WB-5**



Obverse 5



Reverse E

1863

This better date half dollar does not appear for sale often. Nine mostly non-descript die marriages are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
503,200	9	9	8	4 (144, 151, 152, 153)

1863 Die Characteristics.

- All 1863 reverse dies are from Master Die 1, Type 2 working hub.
- Strongly struck 1863 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1863 half dollars have concentric lines in dentils, mostly likely from incomplete or improper finishing of the working dies. Sometimes, these die lines are misidentified as "digits in the dentils." Legitimate digits in the dentils for 1863 half dollars are unknown.
- All 1863 reverse devices (i.e., eagle) are outlined, again likely from incomplete or improper finishing of the working dies.
- For lack of or a minimum of obvious die characteristics, many dies can be very difficult to distinguish and nearly impossible in lower circulated grades. In this case, the date position can be very useful in identifying the die marriage.
- Die clashes including multiple die clashes are uncommon.
- Strong die cracks are uncommon for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

Rare 1863 half dollar error. There exists a misaligned die 1863 half dollar. Exceptionally rare and likely unique, this error coin was found in Germany in 2009 and purchased on eBay by a lucky Liberty Seated Collectors Club member. For complete details of this find, see my article in the *Gobrecht Journal* issue #106, page 24.



1863 date grid quick reference table

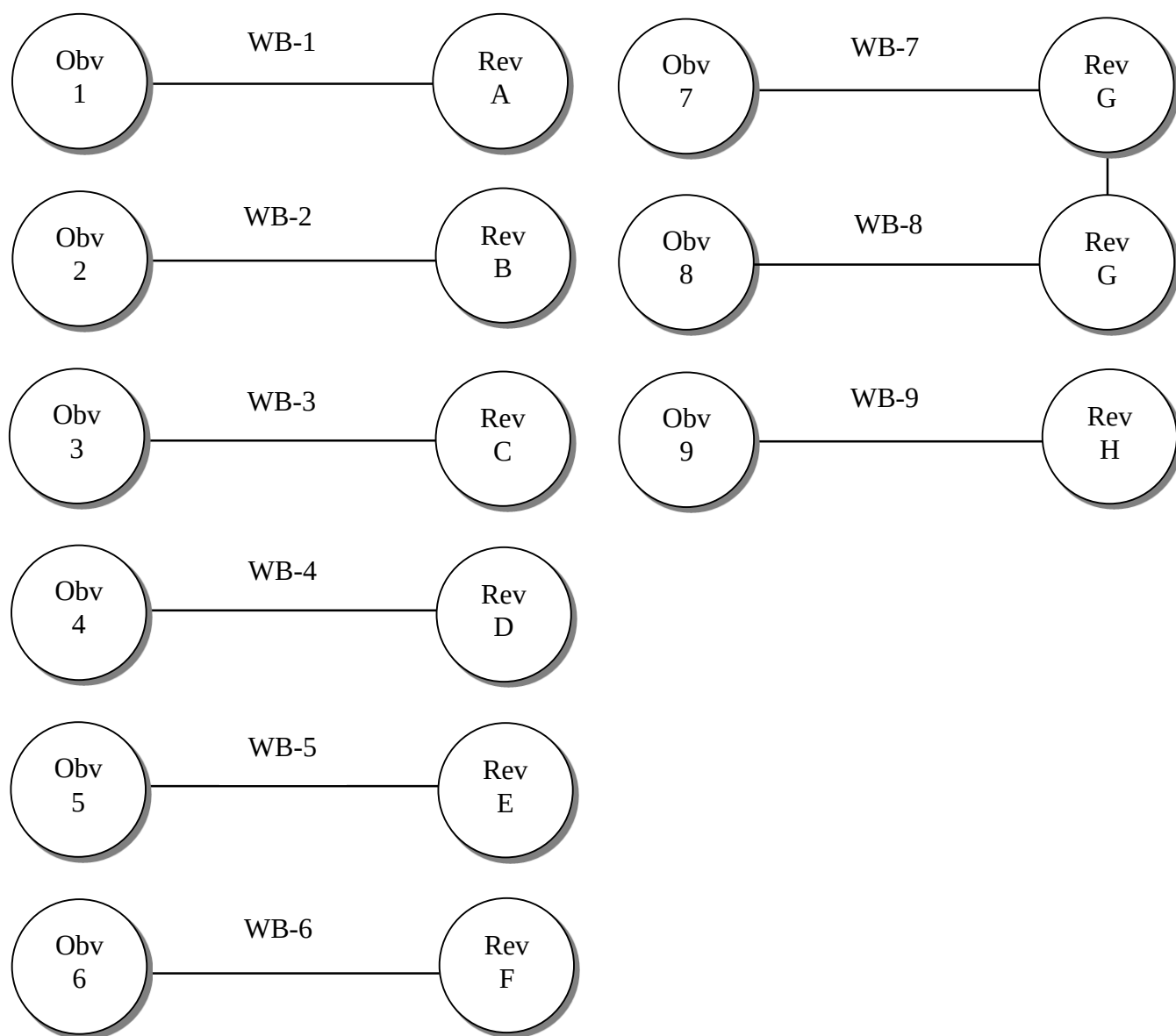
Obverse die date grid	Die Marriage
M1.5, .028"	WB-7
M2, .018"	WB-3
M2.5, .026"	WB-2
M2.5, .026"	WB-6
M2.5, .034"	WB-1
M3, .024"	WB-9
M3, .026"	WB-8
M4, .018"	WB-4
M4.5, .026"	WB-5

1863 Half Dollar Date Positions



1863 Half Dollar Obverse and Reverse die identification keys		Die line thru the upper loop of the (AME)R(ICA)	Die gouge thru S(TATES)	Extra metal along vertical shield lines A1 and B1	No usable die diagnostics	Die gouges thru the olive leaves into the eagle	No usable die diagnostics	Small line in the eagle's feathers to the left of the shield	Small line in the recessed area between olive leaves #1 and #2
		A	B	C	D	E	F	G	H
No usable die diagnostics	1	WB-1							
Rust lump along the shield's lower left	2		WB-2						
Rust lump in rock support below Liberty's foot	3			WB-3					
Die line in the rock support under Liberty's heel	4				WB-4				
Rust lump in shield above (LIBERT)Y	5					WB-5			
No usable die diagnostics	6						WB-6		
No usable die diagnostics	7							WB-7	
Die line from the dentils to the left of the rock support	8							WB-8	
Die line in the recessed area between the rock and rock support	9								WB-9

1863 Half Dollar Die Linkage Diagram



1863 WB-1

Obverse 1



- Centered date (photo)
- No usable die diagnostics other than date position

Reverse A

- Few usable die characteristics



- Faint die line thru the upper loop of the (AME)R(ICA) (photo). Note the chipped dentil above R characteristic of this hub.
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .034"	152 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1863
WB-1**



Obverse 1



Reverse A (enhanced die cracks in photo at right)

1863 WB-2

Obverse 2



- Centered date (photo)



- Die line connects rock and rock support and rust lump along the shield's lower left (photo)



- Small area of rust lumps in Liberty's gown to the left of the base of the pole (photo)

Reverse B



- Diagonal (NE to SW) die gouge thru S(TATES) (photo)



- Scattered rust lumps in the field around and thru the olive leaves and left claw (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .026"	144 reeds	Typical diameter = 1.205"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1863
WB-2



Obverse 2



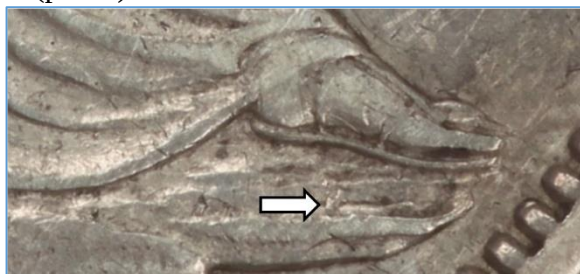
Reverse B

1863 WB-3

Obverse 3

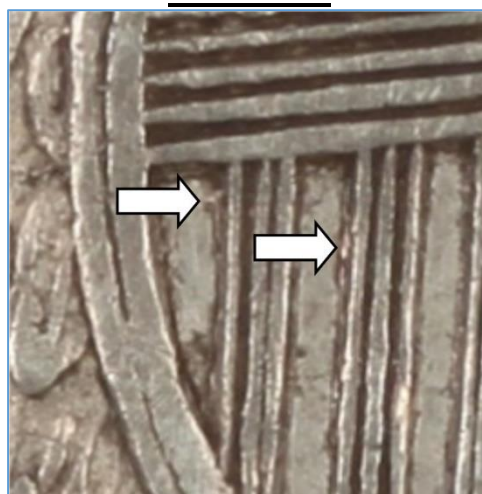


- High date slanting slightly down to right (photo)



- Rust lump in rock support below Liberty's foot (photo)

Reverse C



- "Extra" metal along vertical shield lines A1 and B1 (photo)

This is the only use of this obverse die and only use of this reverse die.

This die marriage has an unusual 151 reed count, not often seen in the Liberty Seated half dollar series.

Date grid: M2, .018"	151 reeds	Typical diameter = 1.207"	Rarity - 3
Draperies die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1863
WB-3**



Obverse 3



Reverse C

1863 WB-4

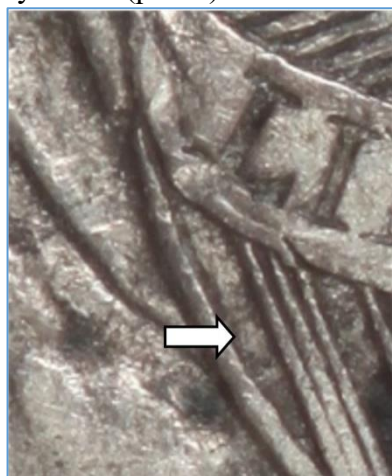
Obverse 4



- High date and right (photo)



- Faint die line in the rock support under Liberty's heel (photo)



- Hard-to-see vertical die line in the obverse shield below L(IBERTY) (photo)

Reverse D

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .018"	153 reeds	Typical diameter = 1.203"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VF25		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1863
WB-4**



Obverse 4



Reverse D

1863 WB-5

Obverse 5



- Centered date slightly right (photo)



- Rust lump in shield above (LIBERT)Y (photo)

Reverse E



- Multiple die gouges thru the olive leaves into the eagle (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4.5, .026"	152 reeds	Typical diameter = 1.205"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS63		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1863
WB-5



Obverse 5



Reverse E

1863 WB-6

Obverse 6



- Centered date (photo)
- No usable die diagnostics seen other than date position

Reverse F

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .026"	153 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1863
WB-6



Obverse 6



Reverse F

1863 WB-7

Obverse 7



- Date slightly left (photo)
- No usable die diagnostics seen other than date position

Reverse G



- Small line in the eagle's feathers to the left of the shield (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M1.5, .028"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS63		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1863
WB-7**



Obverse 7



Reverse G

1863 WB-8

Obverse 8

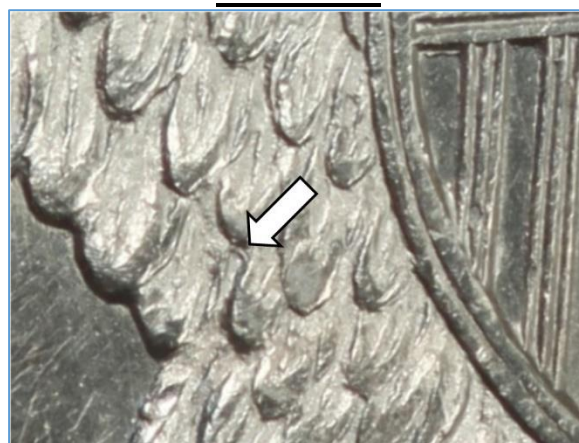


- Date (photo)



- Near vertical die line from the dentils to the left of the rock support (photo)

Reverse G



- Small line in the eagle's feathers to the left of the shield (photo)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M3, .026"	152 reeds	Typical diameter = 1.204"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1863
WB-8



Obverse 8



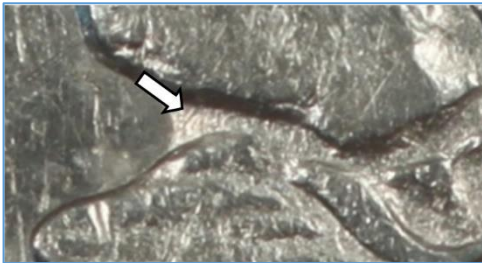
Reverse G

1863 WB-9

Obverse 9



- Date (photo)



- Small die line in the recessed area between the rock and rock support (photo)

Reverse H



- Small line in the recessed area between olive leaves #1 and #2 (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .024"	144 reeds	Typical diameter = 1.203"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1863
WB-9**



Obverse 9



Reverse H (enhanced die cracks in photo at right)

1864

This date is the fourth year of the War. Most coins of this date did not circulate and were hoarded, legally exported, or melted for bullion. Consequently, many 1864 half dollars are of higher grade and are not plentiful.

Nine die marriages including a repunched date and doubled obverse die are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
379,100	9	5	7	1 (153)

Many obverse and reverse die characteristics are difficult to find/see. Low grade coins will be almost impossible to correctly attribute. For these, the date position is extremely helpful and the following table is useful.

1864 date grid quick reference table

Obverse die date grid	Die Marriage
M1.5, .016"	WB-3
M1.5, .016"	WB-4
M1.5, .016"	WB-5
M1.5, .020"	WB-1
M1.5, .036"	WB-2
M2, .022"	WB-6
M2.5, .028"	WB-8
M2.5, .028"	WB-9
M2.5, .030"	WB-7

1864 Half Dollar Date Positions

		
Obverse 1, WB-1 Repunched 1 4	Obverse 2, WB-2 Very Low Date	Obverse 3, WB-3, 4, 5 Doubled Obverse Die
		
Obverse 4, WB-6	Obverse 5, WB-7, WB-8, WB-9	

1864 Half Dollar Obverse and Reverse die identification keys		No usable die diagnostics	No usable die diagnostics	Die line in the loop of the (UNITE)D	Die line from the dentils to (DO)L	No usable die diagnostics	Die lines thru (AME)R(ICA)	No usable die diagnostics
		A	B	C	D	E	F	G
Repunched 1 4 in date	1	WB-1						
Very low date	2		WB-2					
Doubled Die	3		WB-3	WB-4	WB-5			
Die line in Liberty's skirt behind her heel	4					WB-6		
Three small lumps in Liberty's gown	5			WB-9			WB-7	WB-8

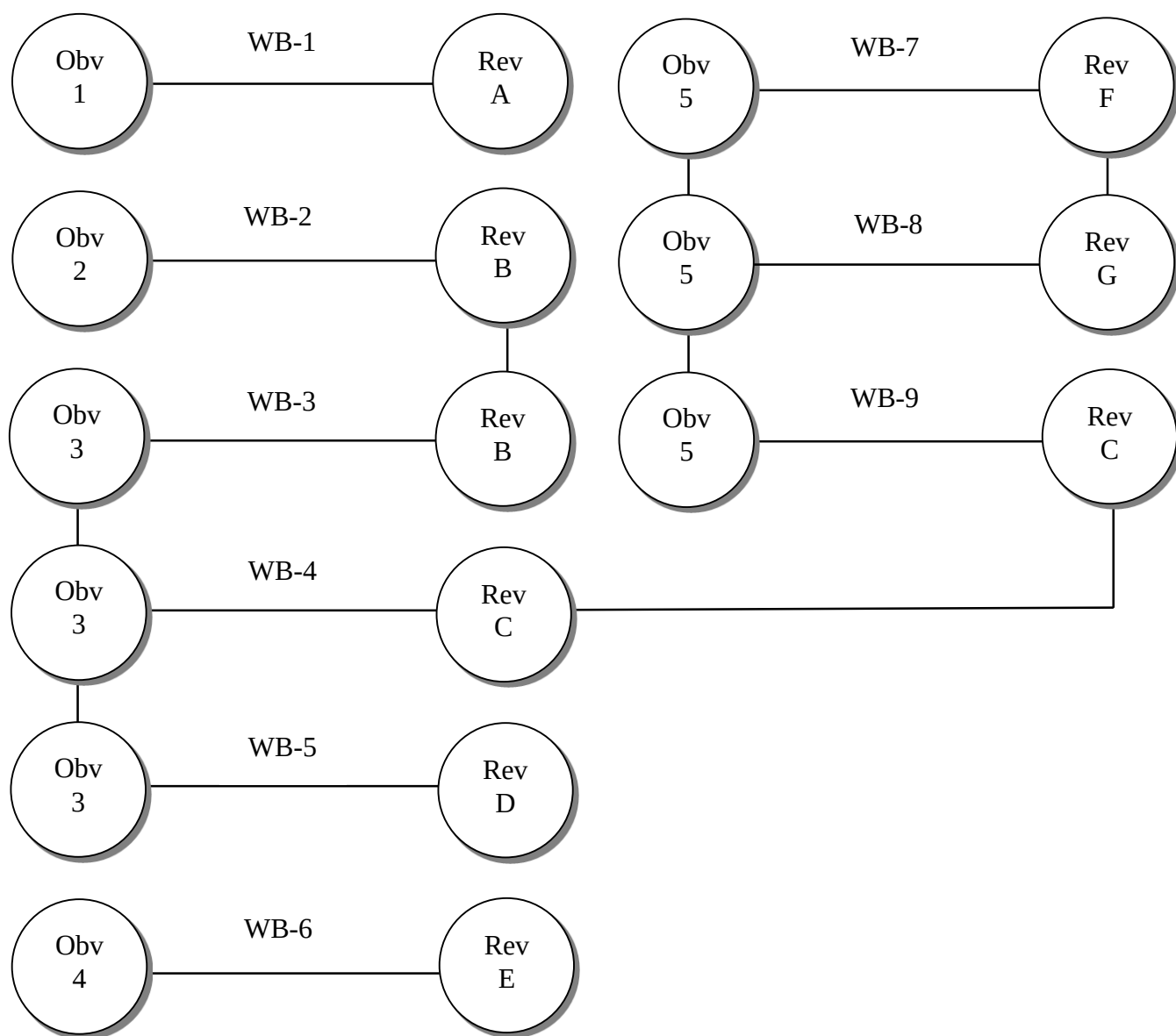
1864 Die Characteristics.

- All 1864 reverse dies are from Master Die 1, Type 2 working hub.
- Strongly struck 1864 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1864 reverse devices (i.e., eagle) are outlined, likely from incomplete or improper finishing of the working dies.
- Die clashes including multiple die clashes are uncommon.
- Die cracks are common for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

Boston Masonic Temple Half Dollars. Mentioned here because of the date, an unknown number of 1864 Philadelphia Mint half dollars were engraved “Boston Encampment” on the right obverse field and “Taken from the ruins of Masonic Temple April 6, 1864” around the reverse. Much has been written elsewhere on these but, in summary, 1864 half dollars were minted from silver taken from the ruins of the burned Boston Masonic temple. Popular with exnumia collectors, these rarely appear on the market and are often expensive. I have not physically examined one and am unsure of the die marriage. They are all likely the same die marriage as the silver for the half dollars came from the ruins and were minted into half dollars on a specific order.



1864 Half Dollar Die Linkage Diagram



1864

WB-1, Repunched 1 4

Obverse 1



- Centered date (photo)



- Repunched 1 4 in date. The base of the 1 is repunched north and the crossbar of the 4 is repunched south (photo)
- LDS: clash along Liberty's right arm

Reverse A

- No usable die diagnostics other than die cracks
- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- LDS: clash in shield's lower right

This is the only use of this obverse die and only use of this reverse die.

Date grid: M1.5, .020"	153 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: XF40 LDS: AU58		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1864
WB-1, Repunched 1 4



Obverse 1



Reverse A (enhanced die cracks in photo at right)

1864 WB-2, Very Low Date			
<u>Obverse 2</u>  • Very low date (photo)  • Small lump in the rock support's recessed area below the ribbon (photo)		<u>Reverse B</u> • No usable die diagnostics seen	
This is the only use of this obverse die and first use of this reverse die.			
Date grid: M1.5, .036"	153 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: NGC AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.		Version ISA.CS	

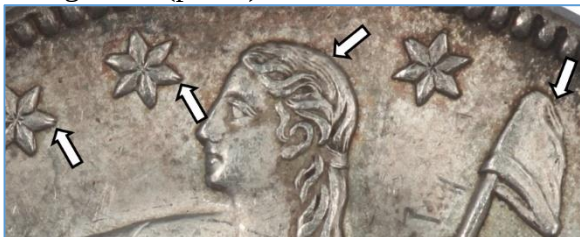
1864
WB-2, Very Low Date



Obverse 2



Reverse B

1864 WB-3, Doubled Die Obverse			
<u>Obverse 3</u>  • High date (photo)  • Obvious die doubling on stars 6-8, Liberty's hair, and pole and cap (photo) • All die states: die cracks thru stars 1-5 (See enhanced die crack diagram on the next page.)		<u>Reverse B</u> • No usable die diagnostics seen other than die cracks • All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)	
This is the first use of this obverse die and second use of this reverse die.			
Date grid: M1.5, .016"	153 reeds	Typical diameter = 1.205"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: XF40 LDS: PCGS MS63		EDS coin from the Bill Bugert Collection LDS coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

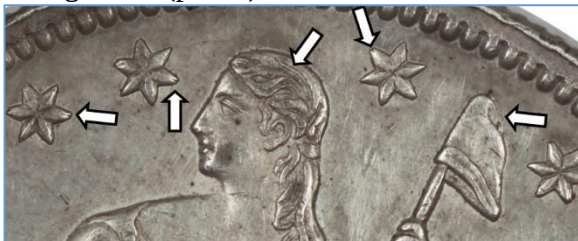
1864
WB-3, Doubled Die Obverse



Obverse 3 (enhanced die cracks in photo at right)



Reverse B (enhanced die cracks in photo at right)

1864 WB-4, Doubled Die Obverse			
<u>Obverse 3</u>  - High date (photo)  - Obvious die doubling on stars 6-8, Liberty's hair, and pole and cap (photo) - All die states: die cracks thru stars 1-5 (See enhanced die crack diagram on the next page.)		<u>Reverse C</u>  Very faint die line in the loop of the (UNITE)D (photo)	
This is the second use of this obverse die and only use of this reverse die.			
Date grid: M1.5, .016"	153 reeds	Typical diameter = 1.205"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU50 MS62 AU53		Coin from the Bill Bugert Collection Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1864
WB-4, Doubled Die Obverse



Obverse 3 (enhanced die cracks in photo at right)



Reverse C

1864 WB-5, Doubled Die Obverse			
<u>Obverse 3</u>  - High date (photo)  - Obvious die doubling on stars 6-8, Liberty's hair, and pole and cap (photo) - All die states: die cracks thru stars 1-5, Liberty's head to star 8 to pole (See enhanced die crack diagram on the next page.)		<u>Reverse D</u>  - Die line from the dentils to (DO)L (photo) - MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)	
This is the third use of this obverse die and only use of this reverse die.			
Date grid: M1.5, .016"		Unknown reeds	Typical diameter = Unknown"
Drapery die state: Full		Foot support: Full	Dentils: Obverse - Full; Reverse - Full
Grade of coin depicted: NGC MS64		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1864

WB-5, Doubled Die Obverse



Obverse 3 (enhanced die cracks in photo at right)



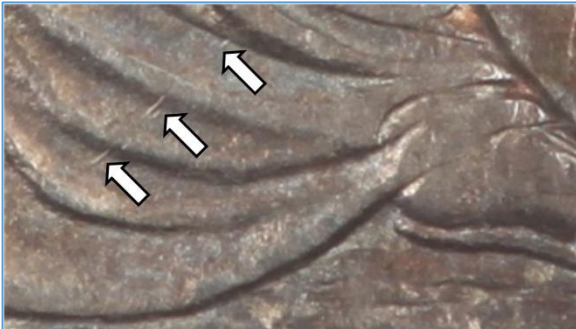
Reverse D (enhanced die cracks in photo at right)

1864 WB-6

Obverse 4



- Centered date (photo)



- Die line in Liberty's skirt behind her heel (photo)

Reverse E

- No usable die diagnostics seen other than die cracks
- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2, .022"	153 reeds	Typical diameter = 1.208"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1864
WB-6**



Obverse 4



Reverse E (enhanced die cracks in photo at right)

1864 WB-7

Obverse 5



- Centered date (photo)



- Three small lumps in Liberty's gown to the right of the lowest horizontal shield line (photo)
- Clash in Liberty's drapery and in the field to the right of the drapery

Reverse F



- Die lines diagonally thru (AME)R(ICA) (photo)



- Diagonal die line connects (UNI)TE(D) (photo)
- Heavily clashed including clash in shield's lower right

This is the first use of this obverse die and only use of this reverse die.

Date grid: M2.5, .030"	153 reeds	Typical diameter = 1.205"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS63		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1864
WB-7



Obverse 5



Reverse F

1864 WB-8

Obverse 5



- Centered date (photo)



- Three small lumps in Liberty's gown to the right of the lowest horizontal shield line (photo)
- Clash in Liberty's drapery and in the field to the right of the drapery

Reverse G

- No usable die diagnostics other than die cracks
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M2.5, .028"	153 reeds	Typical diameter = 1.202"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1864
WB-8**



Obverse 5 (enhanced die cracks in photo at right)



Reverse G (enhanced die cracks in photo at right)

1864 WB-9

Obverse 5



- Date (photo)



- Three small lumps in Liberty's gown to the right of the lowest horizontal shield line (photo)
- Clash in Liberty's drapery and in the field to the right of the drapery
- Die cracks thru stars and date (See enhanced die crack diagram on the next page.)

Reverse C

- Very faint die line in the loop of the (UNITE)D seen in the previous use of this die (WB-4) is not now visible.
- No usable die diagnostics seen

This is the third use of this obverse die and second use of this reverse die.

Date grid: M2.5, .028"

Unknown reeds

Typical diameter = Unknown"

Rarity - 4

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

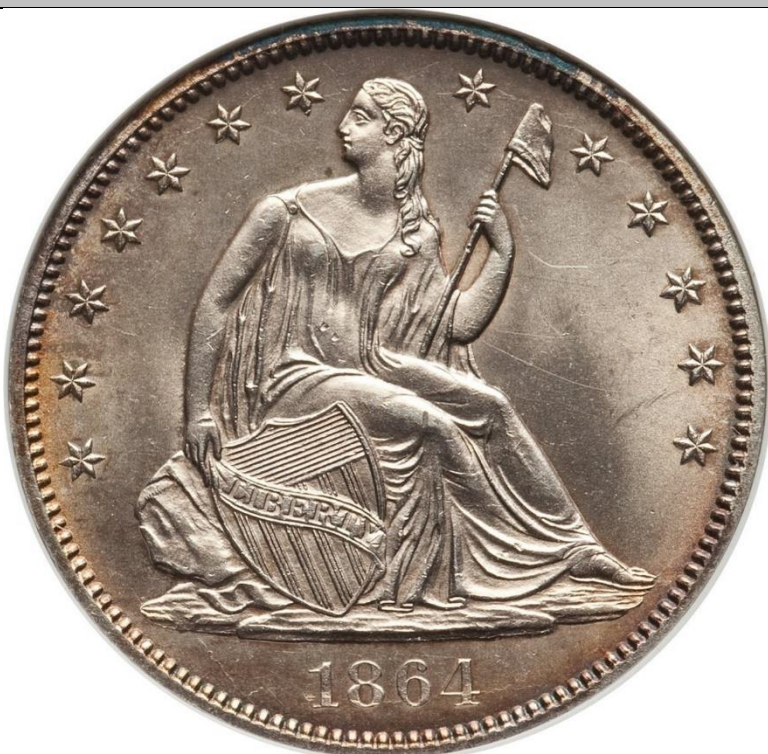
Grade of coin depicted: ANACS SWH MS63

Coin from the Dick Osburn Collection

Cross reference: WB-101.

Version ISA.CS

**1864
WB-9**



Obverse 5 (enhanced die cracks in photo at right)



Reverse C

1865

1865 is a recognized scarce date. It is the last year of the Civil War and these half dollars likely did not circulate at the time of minting (see introductory text). Consequently, most 1865 half dollars are higher grade because the survivors did not circulate. These half dollars have very good die diagnostics and attributing them will be easy except in very low grades.

Eight die marriages with few major varieties to attract attention are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
511,400	8	7	7	5 (144, 145, 146, 150, 153)

The date position can be extremely helpful in attributing die varieties and the following table may be useful.

1865 Die Characteristics.

- All 1865 reverse dies are from Master Die 1, Type 2 working hub.
- Strongly struck 1865 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1865 reverse devices (i.e., eagle) are outlined, likely from incomplete or improper finishing of the working dies.
- Die clashes including multiple die clashes are uncommon.
- Most dies for this date are cracked in later die states.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1865 date grid quick reference table

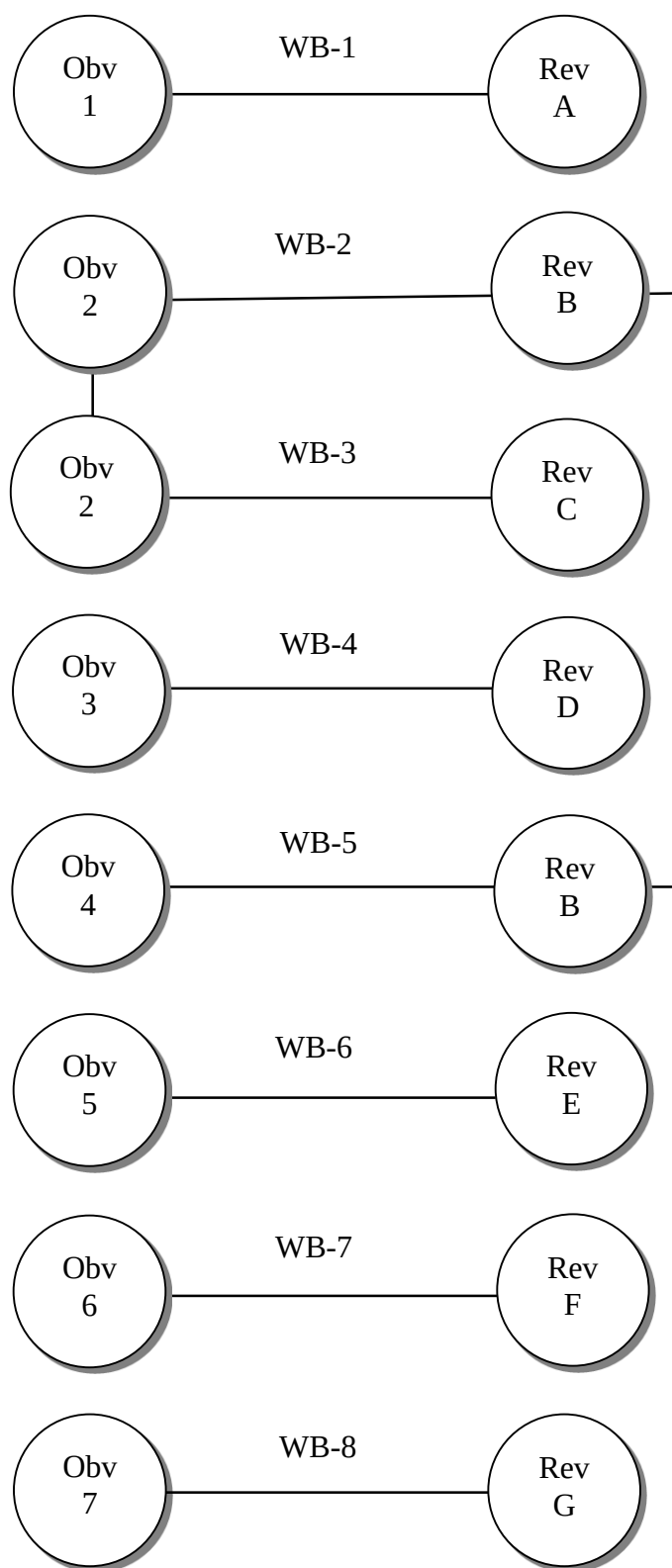
Obverse die date grid	Die Marriage
M2.5, .022"	WB-5
M2.5, .026"	WB-3
M2.5, .026"	WB-2
M3, .028"	WB-8
M3.5, .024"	WB-1
M3.5, .027"	WB-7
M4.5, .032"	WB-6
M5, .024"	WB-4

1865 Half Dollar Date Positions

 Obverse 1, WB-1 Doubled Date	 Obverse 2, WB-2, WB-3	 Obverse 3, WB-4
 Obverse 4, WB-5	 Obverse 5, WB-6	 Obverse 6, WB-7
 Obverse 7, WB-8		

1865 Half Dollar Obverse and Reverse die identification keys		Die cracks thru legend and denomination	Vertical die line in/out of the eagle's left wing near the shield	Die lines along the upper left base of the eagle's neck and in the shield	Die line in the eagle's tail feathers below the shield tip	No usable die diagnostics seen	Die lines thru the eagle's left wing into the left half of the shield	Die cracks thru legend and denomination
		A	B	C	D	E	F	G
Doubled Date	1	WB-1						
Die gouge from dentils to left of Liberty's head	2		WB-2	WB-3				
Date right	3				WB-4			
No usable die diagnostics	4		WB-5					
Date low	5					WB-6		
86 in dentils	6						WB-7	
Date low	7							WB-8

1865 Half Dollar Die Linkage Diagram



1865 WB-1, Doubled Date

Obverse 1



- Doubled date (photos above and below). All four digits are repunched over an earlier obliquely punched date. The two outer digits, 1 5, show the most repunching because they were on the outer axis of rotation; the inner digits, 86, show the least repunching.



- Close up of repunched date (photo)
- Die cracks nearly around the entire circumference (See enhanced die crack diagram on the next page.)

Reverse A



- LDS only: multiple diagonal (SW to NE) die lines between the eagle's neck and left wing and below the left wing (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

In EDS to MDS, the reverse is not rotated. In LDS, the die is rotated 27° counter clockwise as depicted on the next page. Most WB-1s do not have the rotated reverse.

Date grid: M3.5, .024"	153 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1865
WB-1, Doubled Date



Obverse 1 (enhanced die cracks in photo at right)



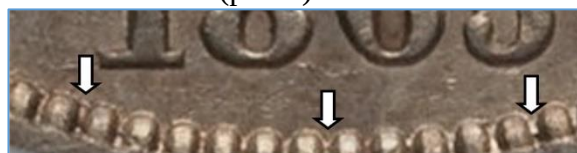
Reverse A (enhanced die cracks in photo at right)

1865 WB-2

Obverse 2



- Centered date (photo)



- Possible digits in the dentils below the date (photo)



- Die gouge from dentils to left of Liberty's head (photo)



- Die lines from tip of Liberty's toes (photo)

Reverse B



- Vertical die line in/out of the eagle's left wing near the shield (photo). Note the weak wing feathers to the left of the horizontal shield lines.

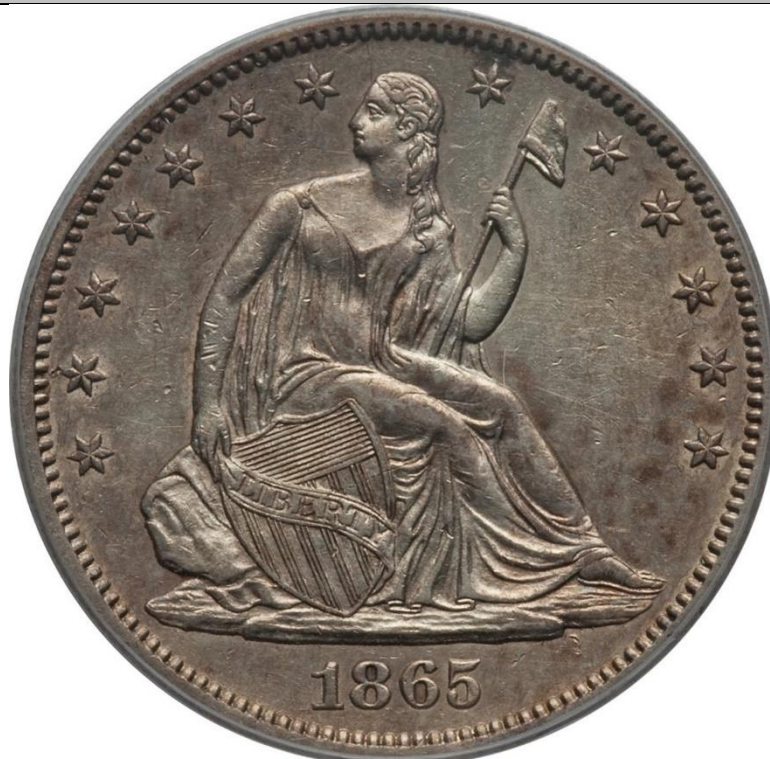


- Die line in dentils above (O)F (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and first use of this reverse die.
Reverse rotated 9° CCW on all examples seen.

Date grid: M2.5, .026"	144 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Images from Heritage Auctions.com	
Cross reference: WB-101.			Version ISA.CS

**1865
WB-2**



Obverse 2



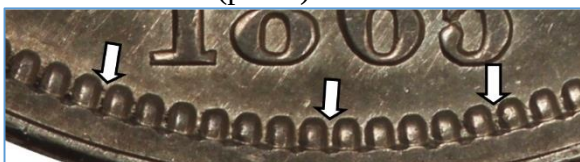
Reverse B (enhanced die cracks in photo at right)

1865 WB-3

Obverse 2



- Centered date (photo)



- Possible digits in the dentils below the date (photo)

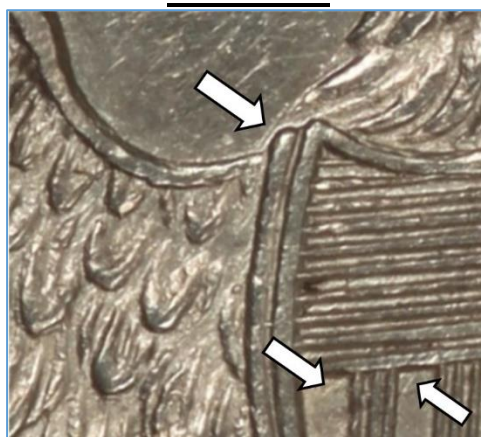


- Die gouge from dentils to left of Liberty's head (photo)



- Die lines in Liberty's gown and from the tip of Liberty's toes (photo)

Reverse C



- Die lines along the upper left base of the eagle's neck and in the shield (photo)
- Die cracks thru legend (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the second use of this obverse die and only use of this reverse die.

Date grid: M2.5, .026"	146 reeds	Typical diameter = 1.215" Large diameter	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1865
WB-3**



Obverse 2



Reverse C (enhanced die cracks in photo at right)

1865 WB-4

Obverse 3



- Date right (photo)
- Die cracks thru stars (See enhanced die crack diagram on the next page.)

Reverse D



- Hard to see die line in the eagle's tail feathers below the shield tip (photo)
- Clash in shield's lower right
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M5, .024"

145 reeds

Typical diameter = 1.203"

Rarity - 3

Drapery die state: Partial to none

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: MS61

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

1865
WB-4



Obverse 3 (enhanced die cracks in photo at right)



Reverse D (enhanced die cracks in photo at right)

1865 WB-5

Obverse 4



- Centered date (photo)
- No usable die diagnostics seen other than MDS-LDS die cracks (See enhanced die crack diagram on the next page.)
- Clash in field to right of the drapery

Reverse B



- Vertical die line in/out of the eagle's left wing near the shield (photo). Note the weak wing feathers to the left of the horizontal shield lines.



- Die line in dentils above (O)F now much weaker than on the previous use of this die (WB-2) (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the only use of this obverse die and second use of this reverse die.

Date grid: M2.5, .022"	153 reeds	Typical diameter = 1.205"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS65		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1865
WB-5**



Obverse 4 (enhanced die cracks in photo at right)



Reverse B (enhanced die cracks in photo at right)

1865 WB-6, Repunched 1 5			
<u>Obverse 5</u>		<u>Reverse E</u>	
		No usable die diagnostics seen	
Date low (photo)			
			
Date digits 1 5 are lightly repunched, the 1 repunched north and 5 repunched northwest (photos above and far above)			
			
- Scattered lumps throughout Liberty (Photo of lower shield) - Die cracks right of date and near head (See enhanced die crack diagram on the next page.)			
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M4.5, .032"	153 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS60		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.		Version ISA.CS	

1865
WB-6, Repunched 1 5



Obverse 5 (enhanced die cracks in photo at right)



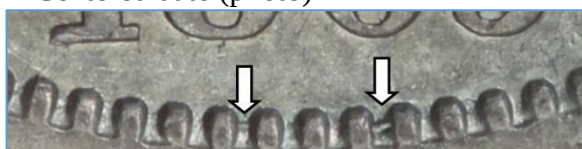
Reverse E

1865 WB-7, 86 in the Denticils

Obverse 6

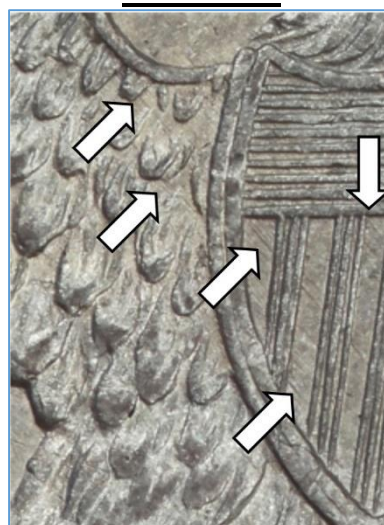


- Centered date (photo)



- The top of digits 8 and 6 are embedded in the denticils below the date and plainly visible even on low grade coins (photos above and far above)

Reverse F



- Many diagonal (NW to SE) die lines thru the eagle's left wing into the left half of the shield (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

This die marriage is identified as "WB-103 Errant 6 in Denticles" in Randy's and my 1993 *Complete Guide*. It is actually an 86 in the denticils as shown above.

Date grid: M3.5, .027"	145 reeds	Typical diameter = 1.198"	Rarity - 4
Dravery die state: Full	Foot support: Weak	Denticils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-103.			Version ISA.CS

1865
WB-7, 86 in the Dentils



Obverse 6



Reverse F (enhanced die cracks in photo at right)

1865 WB-8, Repunched 8

Obverse 7



- Date low (photo)



EDS only



LDS only

- EDS only: 8 repunched north; the lower loop of the 8 plainly shows the repunching (photo above left)
- LDS only: line from dentil below 5 to digit (photo above right)



- Two small lumps on Liberty's chest (photo)

Reverse G

- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Heavily clashed

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .028"	150 reeds – rare 153 reeds	Typical diameter = 1.202"	150 reeds Rarity – 5 153 reeds Rarity – 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: LDS: 150 reeds XF40 EDS: 153 reeds MS62		LDS coin from the Bill Bugert Collection EDS coin from the Randy Wiley Collection	
Cross reference: WB-104.			Version ISA.CS

1865
WB-8, Repunched 8



Obverse 7



Reverse G (enhanced die cracks in photo at right)

1866

This date is the first year of the new With Motto reverse. For the variety collector, this date has a lot to offer. With only eight die marriages, there are three different doubled die obverses, two different digits in the dentils, a blunder date with a digit from Liberty's hand, four different reed counts, and two different master reverse dies. The die marriages are depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
744,900	8	7	6	4 (145, 150, 153, 154)

1866 Die Characteristics.

- All 1866 reverse dies are either from Master Die 1 or Master Die 2 (See introductory section).
- Strongly struck 1866 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1866 reverse devices (i.e., eagle) are outlined, likely from incomplete or improper finishing of the working dies.
- Die clashes including multiple die clashes are common.
- Most dies for this date are cracked in later die states.
- Die anomalies are common for this date (e.g., doubled dies)
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1866 No Motto – du Pont. The 1866 No Motto Liberty Seated half dollar is unique and considered to be a proof fantasy coin. It was part of the Willis du Pont Collection when it was stolen in a dramatic armed robbery from the du Pont Florida estate in 1967. The story of this heist is of numismatic folklore and details are easily found elsewhere. This coin was recovered in an over-the-counter sale at Superior Stamp and Coin in California in 1999. Returned to the du Pont family, it was donated to the National Numismatic Collection of the Smithsonian Institution.



1866 No Motto Liberty Seated Half Dollar
(Images courtesy of John McCloskey from the Smithsonian Institution)

In studying the images of this coin, die diagnostics appear to match the obverse of the 1866 proof half dollar (date position and lump in Liberty's gown line above the first 6) paired with the reverse of the 1865 proof half dollar (eyelash on eagle's eye).

Most 1866 half dollars are readily identifiable with die diagnostics but there may be occasion where the date grid will assist in identifying dies. The following table may be useful.

1866 date grid quick reference table

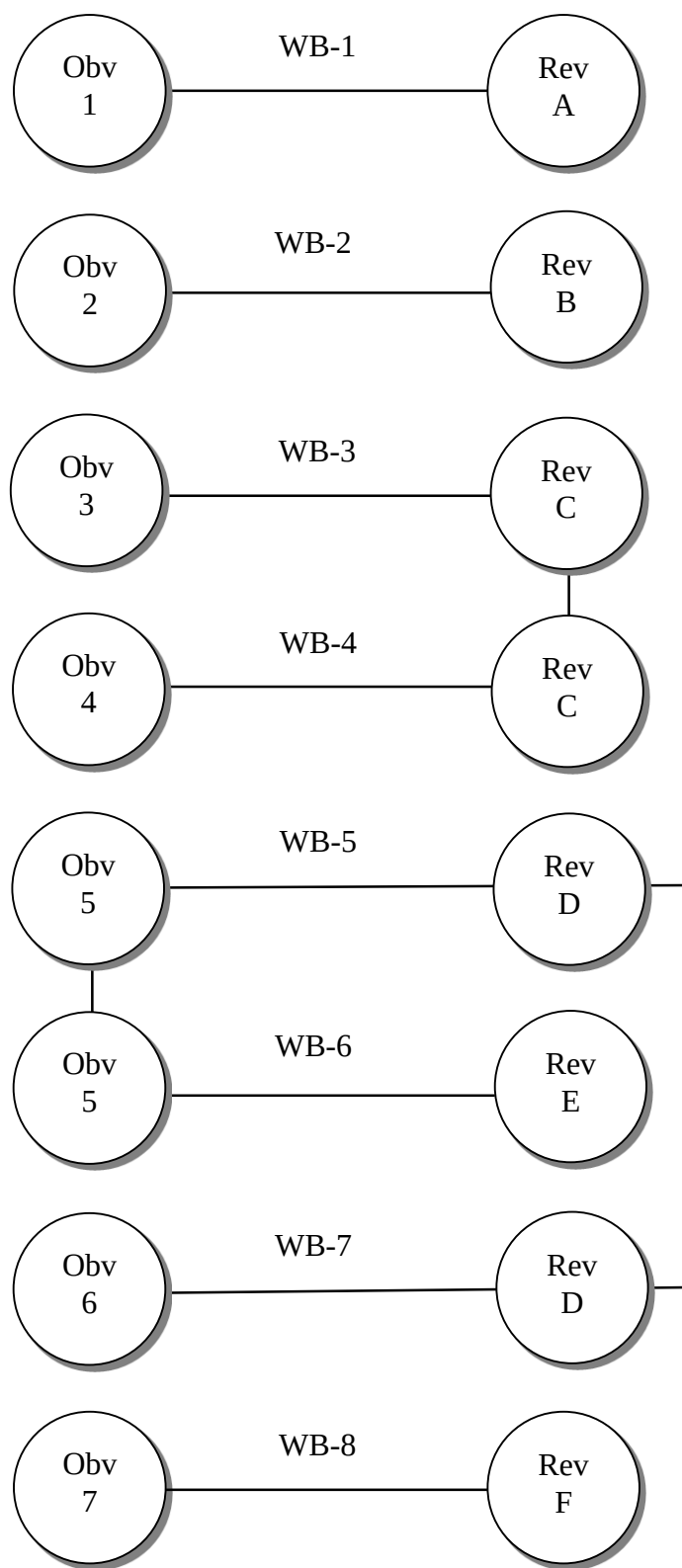
Obverse die date grid	Die Marriage
M1.5, .024"	WB-4
M2.5, .020"	WB-7
M3, .018"	WB-2
M3, .021"	WB-3
M3, .022"	WB-5
M3, .022"	WB-6
M3.5, .020"	WB-8
M4, .024"	WB-1

1866 Half Dollar Date Positions

		
Obverse 1, WB-1 6 in Dentils	Obverse 2, WB-2 8 in Dentils	Obverse 3, WB-3 Doubled Die Obverse 1
		
Obverse 4, WB-4 Doubled Die Obverse 2	Obverse 5, WB-5, WB-6 Doubled Die Obverse 3	Obverse 6, WB-7 1 in Hand
 Obverse 7, WB-8		

1866 Half Dollar Obverse and Reverse die identification keys		Die cracks thru legend and denomination	Die line in the recessed area of the reverse shield	Die line in the reverse shield	Weak feathers	Two small lumps off the end of the middle arrowhead	Die cracks thru portions of the legend and denomination
		Master Die 1		Master Die 2			
		A	B	C	D	E	F
6 in dentils	1	WB-1					
8 in dentils	2		WB-2				
Doubled Die 1	3			WB-3			
Doubled Die 2	4			WB-4			
Doubled Die 3	5				WB-5	WB-6	
1 from hand	6				WB-7		
No usable diagnostics	7						WB-8

1866 Half Dollar Die Linkage Diagram



1866 WB-1, 6 in Dentils

Obverse 1



- Date (photo)



- A misplaced top of the 6 shows in the dentils below the (186)6 (photos above and far above)
- LDS only: rim cuds at K-4 and K-6 (See photo on the next page.)

Reverse A

Master Die 1

- This reverse die is one of two that used the old Master Die 1 in 1866.
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- LDS only: rim cud at K-1 (see photo on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .024"	150 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1866
WB-1, 6 in Dentils



Obverse 1 (enhanced die cracks in photo at right)



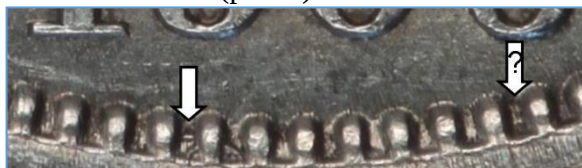
Reverse A (enhanced die cracks in photo at right)

1866 WB-2, 8 in Dentils

Obverse 1



- Centered date (photo)



- Top of an 8 in the dentils below the final 8; possible top of a 6 in the dentils below the last 6 (photo)
- Die cracks around the stars (See enhanced die crack diagram on the next page.)

Reverse A

Master Die 1

- This reverse die is one of two that used the old Master Die 1 in 1866.



- Near vertical die line in the recessed area of the reverse shield between shield lines E3 and F1 (photo)
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3, .018"	145 reeds	Typical diameter = 1.205"	Rarity - 3
Draperies die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: MS60 LDS: PCGS XF45		EDS coin from the Randy Wiley Collection LDS coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1866
WB-2, 8 in Dentils



Obverse 2 (enhanced die cracks in photo at right)



Reverse B (enhanced die cracks in photo at right)

1866

WB-3, Doubled Die Obverse 1

Obverse 3



- Date (photo)



- Die doubling shows on Liberty's head and adjacent stars (photo); shows mostly on Liberty's head (photo below). This die doubling is different from WB-4 and readily identified by the difference in date position.



Reverse C

Master Die 2



- Diagonal (NW to SE) die line in the reverse shield (photo)
- All examples seen: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)



- All examples seen: cud forming from die cracks between (HAL)F D(OL) (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3, .021"	154 reeds	Typical diameter = 1.212"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-104.			Version ISA.CS

1866
WB-3, Doubled Die Obverse 1



Obverse 3 (enhanced die cracks in photo at right)



Reverse C (enhanced die cracks in photo at right)

1866 WB-4, Doubled Die Obverse 2

Obverse 4



- Date left (photo)



- Die doubling on Liberty's head that is very difficult to see on low to mid-grade coins (photo). This die doubling is different from WB-3 and readily identified by the difference in date position.

Reverse C

Master Die 2



- Diagonal (NW to SE) die line in the reverse shield (photo)
- All examples seen: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)



- All examples seen: cud forming from die cracks between (HAL)F D(OL) (photo)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M1.5, .024"	154 reeds	Typical diameter = 1.203"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40 AU55		Coin from the Bill Bugert Collection Coin from the Randy Wiley Collection	
Cross reference: WB-104.			Version ISA.CS

1866
WB-4, Doubled Die Obverse 2



Obverse 4



Reverse C (enhanced die cracks in photo at right)

1866 WB-5 Doubled Die Obverse 3

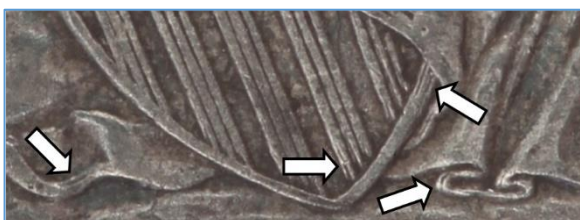
(Notional Images)

Obverse 5

Images below are from obverse 5 on WB-6.



- Date (photo)



- Die doubling visible on Liberty's neck and hair and the shield, lower gown, and ribbon (photos above)

Reverse D

Master Die 2

Images below are from reverse D on WB-7.



- Weak feathers on the eagle's upper left wing adjacent to the shield (photo)



- Weak tail feathers below the shield tip (photo)

This is the first use of this obverse die and first use of this reverse die.

I studied this coin when Dick Osburn owned it. Unfortunately, he sold it and it got away before I could photograph it. Neither Randy nor I own this die marriage.

Date grid: M3, .022"	unknown reeds	Typical diameter = unknown"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Cross reference: WB-Unlisted.		Version ISA.CS	

1866
WB-5 Doubled Die Obverse 3
(Notional Images)



Obverse 5 (Image from WB-6)



Reverse D (Image from WB-7)

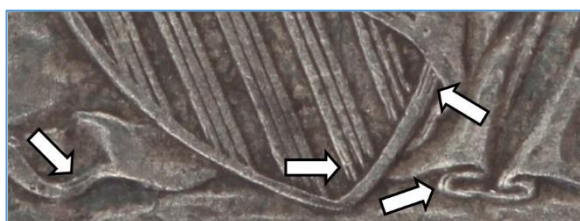
1866

WB-6, Doubled Die Obverse 3

Obverse 5



- Date (photo)



- Die doubling visible on Liberty's neck and hair and the shield, lower gown, and ribbon (photos above)
- Die crack thru stars #3-#6 (See enhanced die crack diagram on the next page.)

Reverse E

Master Die 2



- Two small lumps off the end of the middle arrowhead (photo)
- Weak tail feathers below the shield tip (see photo on the next page.)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M3, .022"	150 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-104.			Version ISA.CS

1866
WB-6, Doubled Die Obverse 3



Obverse 5 (enhanced die cracks in photo at right)



Reverse E

1866 WB-7, 1 from Hand

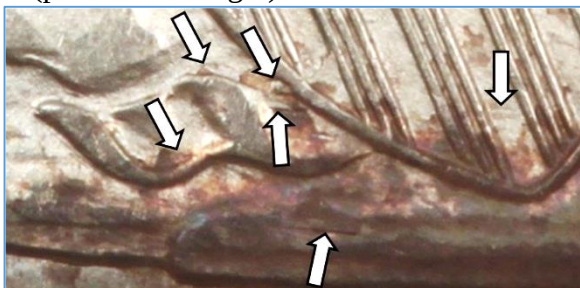
Obverse 6



- Centered date (photo)



- Left base of a 1 protrudes from Liberty's left hand (photo above left). This blundered date shows well even on low grade coins. The flag of the 1 is lightly repunched south. (photo above right)



- Multiple digits punched into the lower shield, rock support, and ribbon (photo)

Reverse D

Master Die 2



- Weak feathers on the eagle's upper left wing adjacent to the shield (photo)



- Weak tail feathers below the shield tip (photo)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M2.5, .020"

150 reeds

Typical diameter = 1.206"

Rarity - 4

Drapery die state: Full

Foot support: Weak

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: MS63

Coin from the Randy Wiley Collection

Cross reference: WB-103.

Version ISA.CS

1866
WB-7, 1 from Hand



Obverse 6



Reverse D

1866 WB-8

Obverse 7



- Date centered and right (photo)
- No usable die diagnostics seen

Reverse F

Master Die 2

- No usable die diagnostics seen
- MDS-LDS: die cracks thru portions of the legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

A scarce late die state example of this die marriage is known with 153 reeds and reverse rotated approximately 30° CCW.

Date grid: M3.5, .020"	EDS: 150 reeds LDS: 153 reeds	Typical diameter = 1.201"	EDS: Rarity - 3 LDS: Rarity - 4
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		EDS coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1866
WB-8**



Obverse 7



Reverse F (enhanced die cracks in photo at right)

1867

This often overlooked date has a lot going for it. With digits in the dentils, repunched dates, heavy die scratches, mintage under 500 thousand, and even the eagle with a tongue, there is plenty to attract collectors. Nine die marriages are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
449,300	9	7	6	3 (144, 150, 153)

The date position is extremely helpful in quickly identifying obverse dies and the following table may be useful.

1867 date grid quick reference table

Obverse die date grid	Die Marriage
M3, .023"	WB-5
M3, .026"	WB-6
M3.5, .022"	WB-2
M3.5, .024"	WB-1
M4, .014"	WB-4
M4, .020"	WB-3
M4.5, .020"	WB-9
M5.5, .014"	WB-7
M5.5, .016"	WB-8

1867 Die Characteristics.

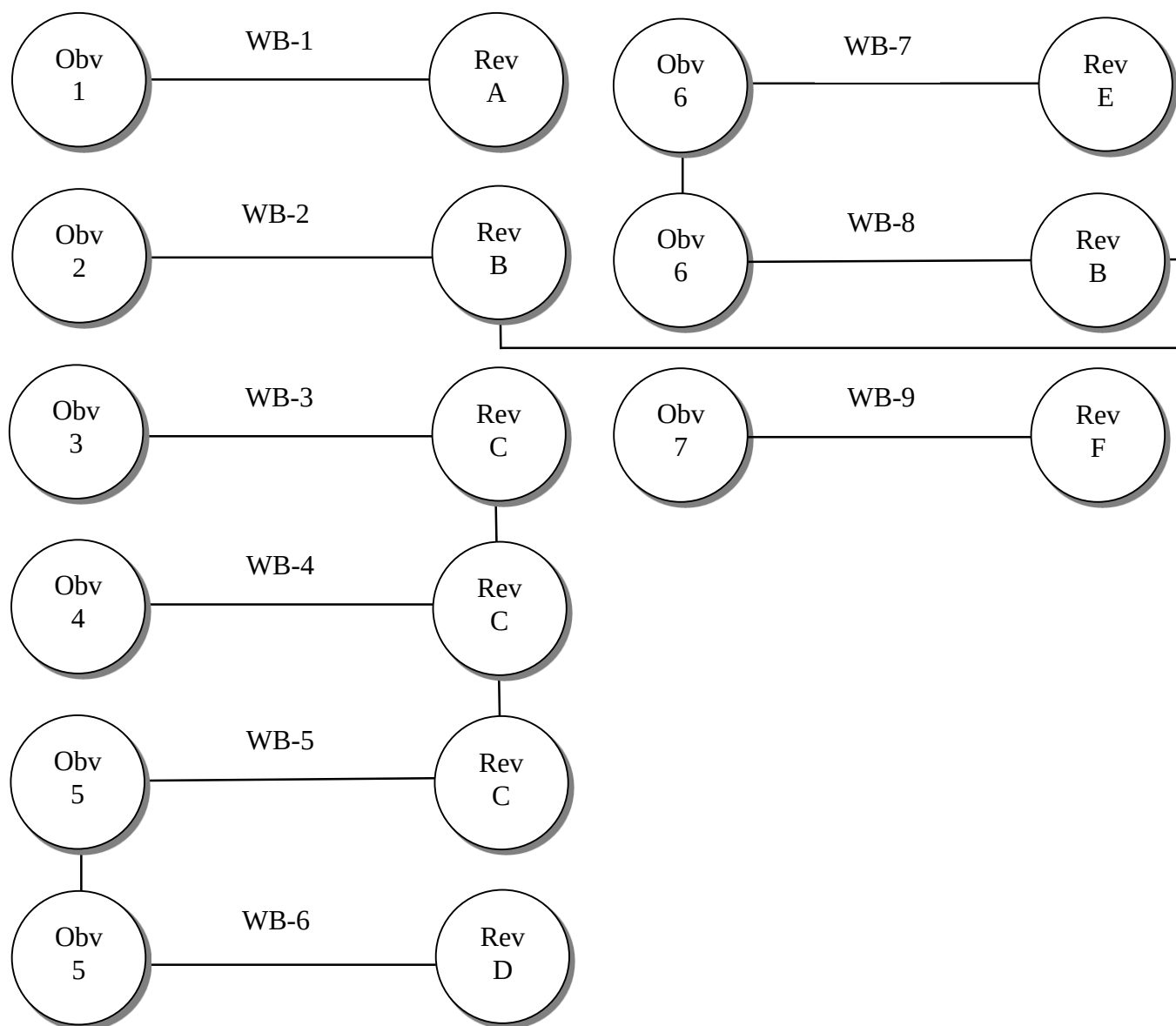
- All 1867 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1867 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1867 obverse and reverse dies have sufficient die diagnostics to readily identify them. However in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Die clashes including multiple die clashes are uncommon.
- Strong die cracks are uncommon for this date but weak die cracks may be and are found on some dies.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1867 Half Dollar Date Positions

 Obverse 1, WB-1 Haywire Die Scratches	 Obverse 2, WB-2 6 in Dentils	 Obverse 3, WB-3
 Obverse 4, WB-4 Repunched 67	 Obverse 5, WB-5, WB-6	 Obverse 6, WB-7, WB-8
 Obverse 7, WB-9		

1867 Half Dollar Obverse and Reverse die identification keys		Arching die line in the eagle's tail feathers near the lower arrow feathers and olive stem	Die line from the eagle's left wing into shield	Die line in the eagle's mouth	Die line in the eagle's left wing	"Crud" in the eagle's left wing tip	No usable die diagnostics seen
		A	B	C	D	E	F
Haywire die scratches	1	WB-1					
6 in dentils	2		WB-2				
Die line in drapery	3			WB-3			
Repunched 67	4			WB-4			
Centered date	5			WB-5	WB-6		
Lump in the recessed area of the shield	6		WB-8			WB-7	
Die line from the ball of Liberty's foot	7						WB-9

1867 Half Dollar Die Linkage Diagram



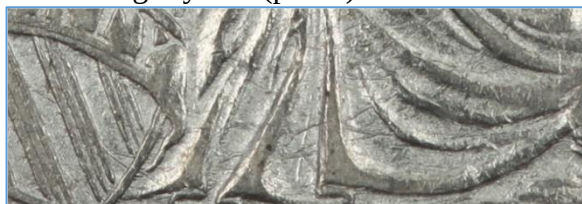
1867

WB-1, Haywire Die Scratches

Obverse 1



- Date slightly low (photo)



- Scattered die scratches throughout the entire Liberty device (photo)



- Two lumps on Liberty's left ribs (photo)



- Possible digit(s) in dentils below (186)7 (photo)

Reverse A



- Arching die line in the eagle's tail feathers near the lower arrow feathers and olive stem (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"	150 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1867
WB-1, Haywire Die Scratches



Obverse 1



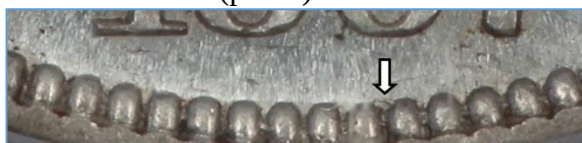
Reverse A

1867 WB-2, 6 in Dentils

Obverse 2



- Centered date (photo)



- The top of at least one 6 (possibly doubled punched) is in the dentils below the date. Other digits may be in the dentils as shown above, especially below the 8. (photo)



- Die line on the rock along Liberty's left index finger (photo)



- Many die lines thru the shield's lower recessed area (photo)
- LDS only: rim cuds from K-3 to K-6 (see photo on the next page)

Reverse B



- Nearly horizontal die line from the eagle's left wing into the shield's horizontal shield lines (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3.5, .022"	150 reeds	Typical diameter = 1.207"	Rarity - 4
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: PCGS MS62, XF40	Coins from the Randy Wiley Collection
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Cross reference: WB-Unlisted.	Version ISA.CS
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1867
WB-2, 6 in Dentils



Obverse 2



Reverse B

1867 WB-3

Obverse



- Date right (photo)



- Vertical die line in Liberty's drapery below her elbow (photo)



- Small lump on the rock near Liberty's left hand (photo)
- MDS-LDS: weak die cracks thru stars (See enhanced die crack diagram on the next page.)

Reverse C



- A die line in the eagle's mouth with the likeness of a tongue. (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M4, .020"	150 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1867
WB-3**



Obverse 3 (enhanced die cracks in photo at right)



Reverse C

1867 WB-4, Repunched 67

Obverse 4



- Date (photo)



- (18)67 repunched north (photos above and far above)



- Die lines thru stars 4-6 (photo); others thru star 7 and from the dentils at K-4

Reverse C



- A die line in the eagle's mouth with the likeness of a tongue. (photo)
- Weak tail feathers below the shield tip

This is the only use of this obverse die and second use of this reverse die.

Date grid: M4, .014"	144 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1867
WB-4, Repunched 67



Obverse 4



Reverse C

1867 WB-5

Obverse 5



- Centered date (photo)



- EDS only: 1(867) repunched north. The base of the 1 shows the repunching. (photo)
- Very rusty Liberty (See full size photo on the next page.)

Reverse C



- A die line in the eagle's mouth appears to be a tongue. (photo)



- Weak tail feathers below the shield tip (photo)



- Weak eagle's left wing adjacent to shield (photo)

This is the first use of this obverse die and third use of this reverse die.

Date grid: M3, .023"	150 reeds	Typical diameter = 1.206"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: VF30 LDS: MS61		Coins from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1867
WB-5



Obverse 5



Reverse C

1867 WB-6

Obverse 5



- Centered date (photo)



- Die lines in Liberty's gown to the right of the shield (photo)
- Very rusty Liberty (See photo above and full size photo on the next page.)

Reverse D



- Die line from the top of the eagle's head to the scroll and another from the lower right serif of the (W)E into the scroll (photo). Note the unfinished scroll edge along the T(RUST) (photo)



- Horizontal fractured die line in the eagle's left wing to the left of the shield (photo)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M3, .026"	153 reeds	Typical diameter = 1.214"	Rarity - 4
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS63		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1867
WB-6



Obverse 5



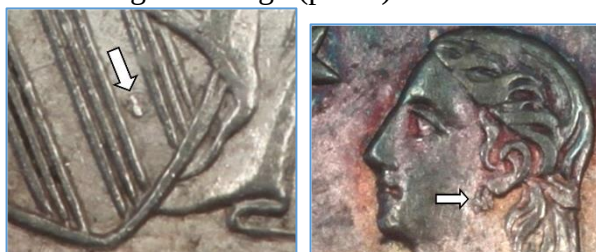
Reverse D

1867 WB-7

Obverse 6



- Date right and high (photo)



- Medium sized lump in the recessed area of the shield (photo above left) and another "cruddy" lump as Liberty's earring (photo above right)

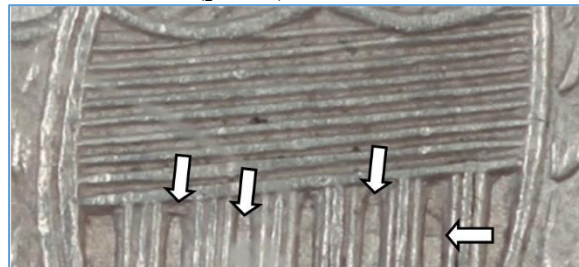


- Small lump in the fold of Liberty's right calf (photo)

Reverse E



- "Crud" in the eagle's left wing tip into the field below (photo)



- Die lines along the lowest horizontal shield line (photo)
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M5.5, .014"	153 reeds	Typical diameter = 1.214"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU58		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1867
WB-7**



Obverse 6



Reverse E (enhanced die cracks in photo at right)

**1867
WB-8**

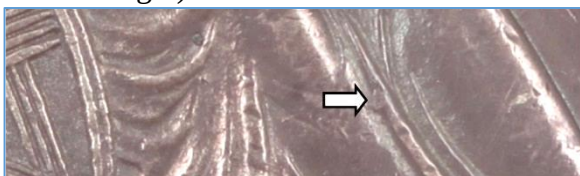
Obverse 6



- Date right and high (photo)

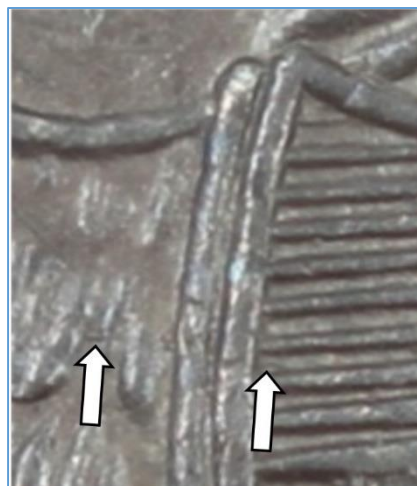


- Small lump in the recessed area of the shield (photo above left) and another "cruddy" lump as Liberty's earring (photo above right)



- Small lump in the fold of Liberty's right calf (photo)

Reverse B



- Nearly horizontal die line from the eagle's left wing into the shield's horizontal shield lines (photo)



- Diagonal (NW to SE) die line in the letter G(OD) (photo above); another from the upper right serif of (W)E (photo below)



- Weak tail feathers below the shield tip

This is the second use of this obverse die and second use of this reverse die.

Date grid: M5.5, .016"	153 reeds	Typical diameter = 1.210"	Rarity - 3
Dravery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1867
WB-8**



Obverse 6



Reverse B (enhanced die cracks in photo at right)

1867 WB-9

Obverse 7



- Date right (photo)



- Heavy die line from the ball of Liberty's foot into the rock support (photo)



- Two small die line in the rock support: one to the left of the shield near the ribbon and the other from the edge of the shield near the tip (photo)

Reverse F

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4.5, .020"	153 reeds	Typical diameter = 1.210"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1867
WB-9**



Obverse 7



Reverse F

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1868

1868 is an under-appreciated, better date in the Liberty Seated half dollar series. With one major repunched date, it is the most popular variety but the easily distinguishable die diagnostics make all the die marriages collectible. Finding examples of all the die marriages will be challenging.

Six die marriages are known as depicted in the tables below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
417,600	6	5	4	2 (145, 153)

By using date positions, these obverse dies are easy to readily distinguish these die marriages.

1868 date grid quick reference table

Obverse die date grid	Die Marriage
M2.5, .024"	WB-5
M3, .016"	WB-2
M3, .016"	WB-3
M3, .019"	WB-4
M3.5, .008"	WB-1
M3.5, .009"	WB-6

1868 Die Characteristics.

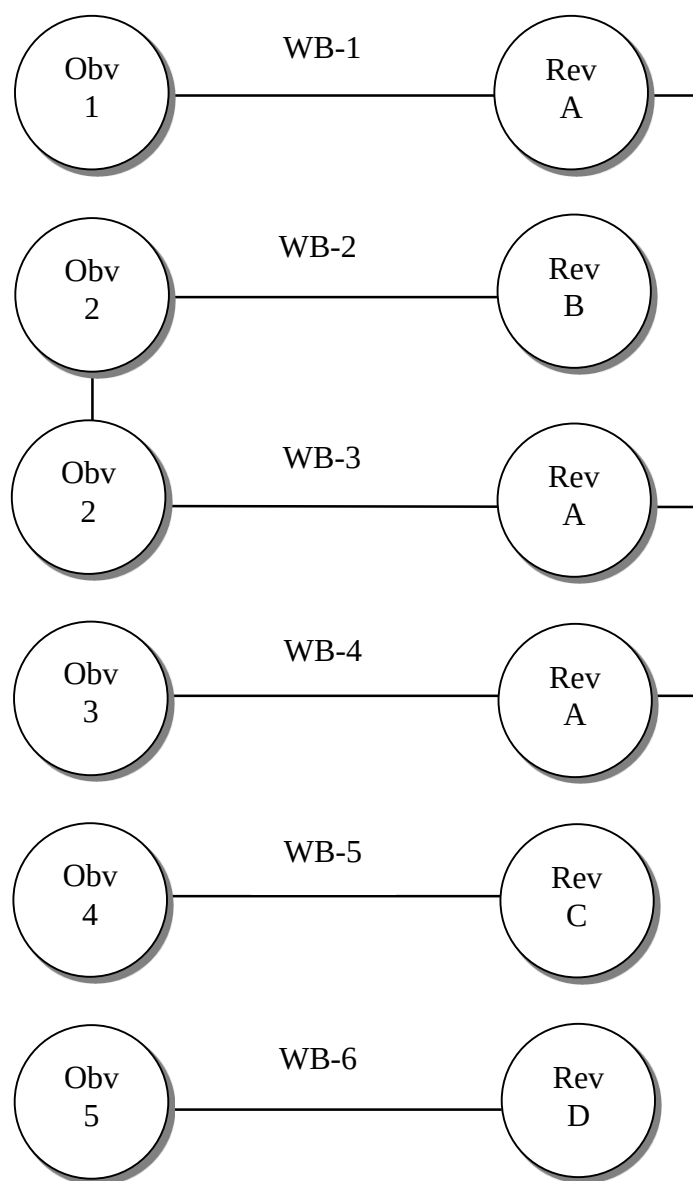
- All 1868 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1868 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1868 obverse and reverse dies have sufficient die diagnostics to readily identify them. However, in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Die clashes including multiple die clashes are uncommon.
- Die cracks are uncommon for this date but very weak almost undetectable die cracks can be found on some high grade coins.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1868 Half Dollar Date Positions

 Obverse 1, WB-1 High Date	 Obverse 2, WB-2, WB-3	 Obverse 3, WB-4 Repunched Date
 Obverse 4, WB-5 Low Date	 Obverse 5, WB-6	

1868 Half Dollar Obverse and Reverse die identification keys		Die line thru eagle's feathers and thru eagle's eye	Vertical die line in eagles right wing	Die lines from upper right shield into the eagle's right wing	Slanted die line from (AM)E(RICA)
		A	B	C	D
High date	1	WB-1			
Lump under chin	2	WB-3	WB-2		
Repunched date	3	WB-4			
Low date slants down	4			WB-5	
High date slants down	5				WB-6

1868 Half Dollar Die Linkage Diagram



1868 WB-1, High Date

Obverse 1

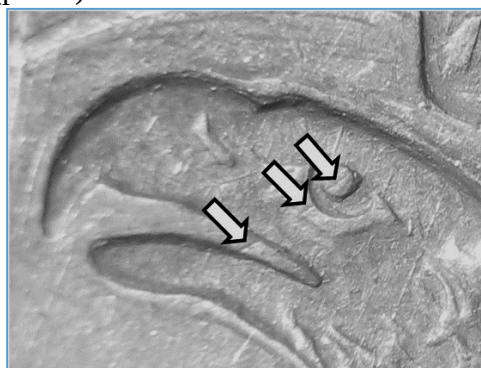


- Date high (photo). This date position is similar to obverse 5 but it is level in the field below the rock support.
- No usable die diagnostics seen other than date position

Reverse A



- Vertical die line in the eagle's tail feathers at the end of the upper arrow feathers (photo)



- Die line thru the eagle's open mouth into the eye (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3.5, .008"	153 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1868
WB-1, High Date



Obverse 1



Reverse A

1868 WB-2

Obverse 2



- Centered date (photo)

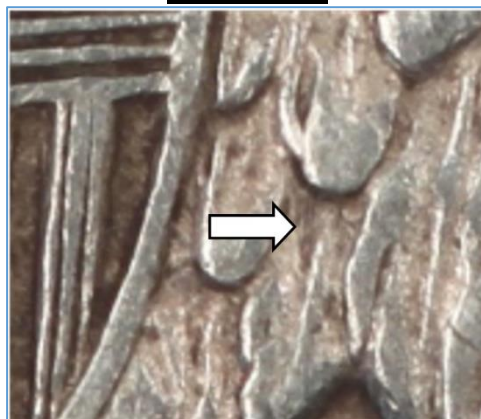


- 18 repunched south with the upper left base of 1 slightly repunched and the inside lower loop of the 8 repunched (photo enhanced)



- Oblong lump under Liberty's chin (photo)

Reverse B



- Vertical die line in the eagle's feathers to the right of the shield (photo). This line can be difficult to see.

This is the first use of this obverse die and only use of this reverse die.

Date grid: M3, .016"	153 reeds	Typical diameter = 1.211"	Rarity - 3
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Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: XF45	Coin from the Randy Wiley Collection
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Cross reference: WB-101.	Version ISA.CS
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**1868
WB-2**



Obverse 2



Reverse B

1868 WB-3

Obverse 2



- Centered date (photo)
- The repunching on digits 18 seen in the previous use of this die (WB-2) is not now visible.



- Oblong lump under Liberty's chin (photo)

Reverse A



- Vertical die line in the eagle's tail feathers at the end of the upper arrow feathers (photo)



- Die gouge in the eagle's upper right wing into the field towards the eagle's neck (photo); this gouge was not visible on the previous use of this die (WB-1).



- Die line thru the eagle's open mouth into the eye (photo)

This is the second use of this obverse die and second use of this reverse die.

Date grid: M3, .016"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1868
WB-3



Obverse 2



Reverse A

1868

WB-4, Repunched Date

Obverse 3



- Centered date slants down to right (photo)



- Obliquely repunched date with the 18 repunched north and second 8 repunched south (photo). The 6 shows no signs of repunching and was likely the center point of the date rotation. There may also be digits in the dentils below the 86. (photo above)



- High grade coins only: arching die line thru Liberty's head and neck (photo)

Reverse A



- Vertical die line in the eagle's tail feathers at the end of the upper arrow feathers (photo)



- Die gouge in the eagle's upper right wing into the field towards the eagle's neck (photo)



- Die line thru the eagle's open mouth into the eye (photo)

This is the only use of this obverse die and third use of this reverse die.

Date grid: M3, .019"	145 reeds	Typical diameter = 1.206"	Rarity - 3
Drapery die state: Full	Foot support: Weak	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU58		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1868
WB-4, Repunched Date



Obverse 3



Reverse A

1868 WB-5, Low Date

Obverse 4



- Date low and date slants down to right (photo)



- The second 8 is slightly repunched west with the repunching on the outside lower loop of the second 8. (photo)



- High grade coins only: two vertical die lines are on Liberty's neck (photo)

Reverse C



- Jumbled die lines from the inside of the shield into the eagle's right wing (photo)



- Vertical die lines above olive leaf #4 and between olive leaves #4 and #5; horizontal die lines between olive leaves #3 and #4 (photo)



- High grade coins only: multiple die lines on the scroll between letters WE (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .024"

145 reeds

Typical diameter = 1.204"

Rarity - 3

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: MS65

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

1868
WB-5, Low Date



Obverse 4



Reverse C

1868 WB-6, High Date			
<u>Obverse 5</u> 		<u>Reverse D</u> 	
<u>Date high</u> and slants down to right (photo). This date position is similar to obverse 1 but it slants down to right.		Small die line from the upper right serif of the (AM)E(RICA) towards the dentils (photo)	
This is the only use of this obverse die and only use of this reverse die.			
Date grid: M3.5, .009"	145 reeds	Typical diameter = 1.201"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.		Version ISA.CS	

1868
WB-6, High Date



Obverse 5



Reverse D

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1869

1869 is one of those dates that attribution of die marriages will be difficult for all coins and nearly impossible for low grade coins. They are common enough that every avid half dollar collector will have at least one but attribution may be a challenge. 1869 half dollars are unusual in that seven of the nine die marriages (WB-1 thru WB-7) are die linked. There is really only one major die marriage of interest, the repunched 18. Nine die marriages are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
795,300	9	6	6	3 (145, 146, 153)

Some obverse and reverse dies have very poor diagnostics. For these, the date position is extremely helpful and the following table is useful.

1869 date grid quick reference table

Obverse die date grid	Die Marriage
M3, .020"	WB-2
M3, .020"	WB-4
M3, .021"	WB-5
M3, .022"	WB-9
M3.5, .024"	WB-6
M3.5, .024"	WB-7
M4, .016"	WB-3
M4, .025"	WB-8
M4, .030"	WB-1

1869 Die Characteristics.

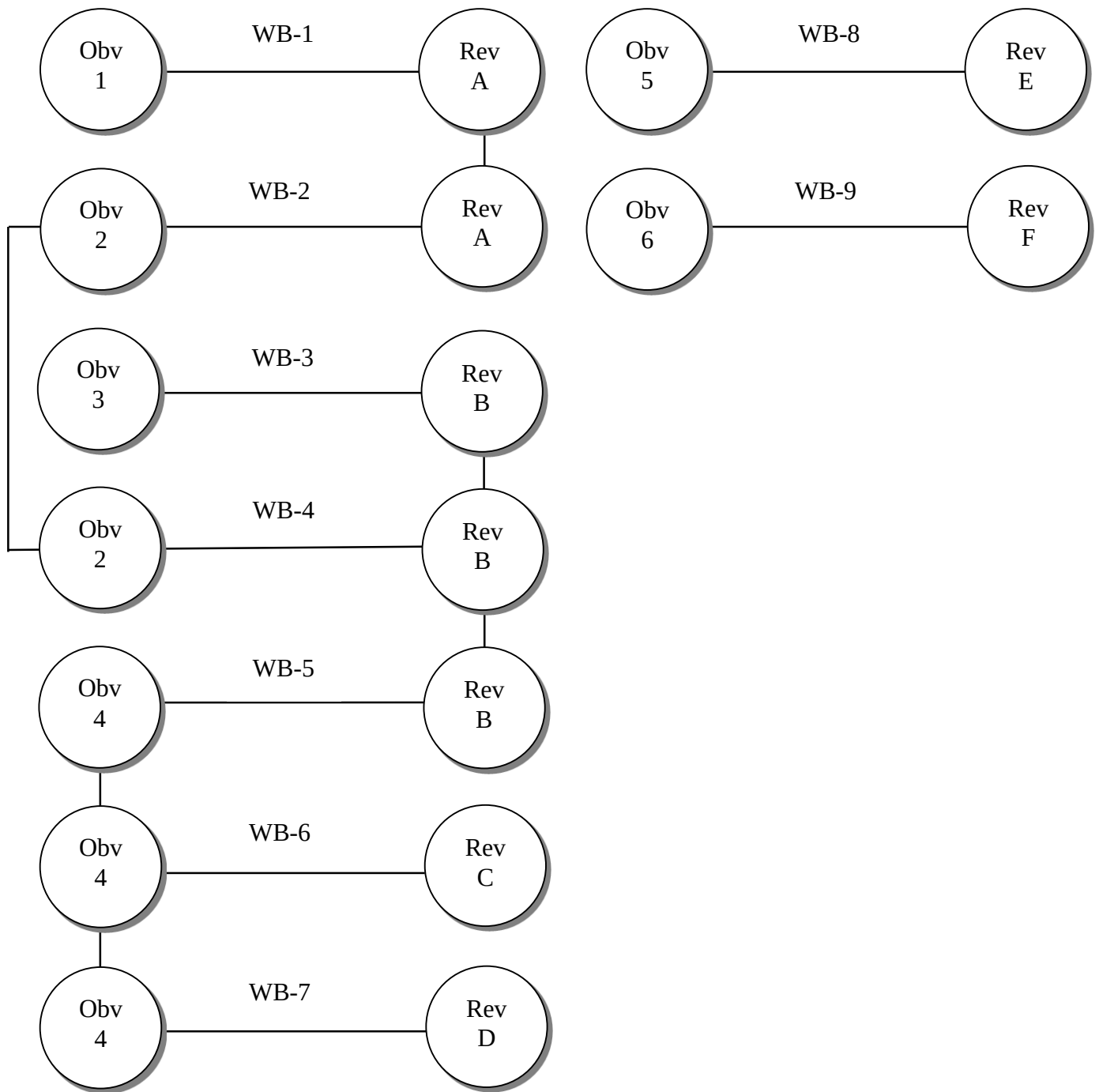
- All 1869 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1869 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1869 obverse and reverse dies have insufficient or insignificant die diagnostics to readily identify them. So, even in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Die cracks are common for this date and most die cracks are strong enough to help identify the die. That note that a few of the reverse dies have very similar but definitely different die crack patterns.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1869 Half Dollar Date Positions

		
Obverse 1, WB-1	Obverse 2, WB-2, WB-4	Obverse 3, WB-3 Repunched 18
		
Obverse 4, WB-5, WB-6, WB-7	Obverse 5, WB-8	Obverse 6, WB-9

1869 Half Dollar Obverse and Reverse die identification keys		No usable die diagnostics seen	Die crack from the middle of the (DO)L	No usable die diagnostics seen	Two lumps in the shield	No usable die diagnostics seen	Die line from inside the shield into the eagle's right breast
		A	B	C	D	E	F
Date slightly right and low	1	WB-1					
Small lump inside the letter (LIBE)R(TY)	2	WB-2	WB-4				
Repunched 18	3		WB-3				
Two small lumps in Liberty's skirt behind the heel	4		WB-5	WB-6	WB-7		
Upside down exclamation mark shaped die defect in the rock support	5					WB-8	
Die line in rock support from Liberty's heel	6						WB-9

1869 Half Dollar Die Linkage Diagram



1869 WB-18

Obverse 1



- Date slightly right and low (photo)
- No usable die diagnostics seen. There are a few very fine lines thru the ribbon into the lower left shield but these will only be seen on very high grade coins.

Reverse A

- There is a very fine die line in the eagle's upper right wing between the feathers but this is very difficult to find and see.

This is the only use of this obverse die and first use of this reverse die.

Date grid: M4, .030"	145 reeds	Typical diameter = 1.205"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS60		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1869
WB-1



Obverse 1



Reverse A

1869 WB-2

Obverse 2



- Date centered (photo)
- Few usable die diagnostics seen



- Small lump inside the letter (LIBE)R(TY) (photo) visible on high grade detailed coins

Reverse A

- There is a very fine die line in the eagle's upper right wing between the feathers but this is very difficult to find and see.
- All examples seen: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and second use of this reverse die.

Date grid: M3, .020"	153 reeds	Typical diameter = 1.212"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1869
WB-2**



Obverse 2



Reverse A (enhanced die cracks in photo at right)

1869 WB-3, Repunched 18

Obverse 3



- Date right and high (photo)



- The figures 18 are slightly repunched north. Signs of the repunching shows below the base and serif of the 1 and hard to see repunching on the bottom loop of the 8 (photo)
- MDS-LDS: die cracks thru upper left stars (See enhanced die crack diagram on the next page.)

Reverse B



- EDS-MDS only: unfinished die along the dentils below (HA)LF (photo)
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.). There is a diagnostic die crack from the middle of the (DO)L to the arrowheads.



This is the only use of this obverse die and first use of this reverse die.

Date grid: M4, .016"	153 reeds	Typical diameter = 1.205"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS63 prooflike		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

1869
WB-3, Repunched 18



Obverse 3 (enhanced die cracks in photo at right)



Reverse B (enhanced die cracks in photo at right)

1869 WB-4

Obverse 2



- Date centered (photo)
- Few usable die diagnostics seen



- Small lump inside the letter (LIBE)R(TY) (photo) visible on high grade detailed coins

Reverse B

- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.). There is a diagnostic die crack from the middle of the (DO)L to the arrowheads.



This is the second use of this obverse die and second use of this reverse die.

Date grid: M3, .020"	153 reeds	Typical diameter = 1.211"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1869
WB-4**



Obverse 2 (enhanced die cracks in photo at right)



Reverse B (enhanced die cracks in photo at right)

1869 WB-5

Obverse 4



- Date centered (photo)



- Die line from shield into Liberty's gown (photo)



- Two small lumps in Liberty's skirt behind the heel (photo)
- Small lump inside the (LIB)E(RTY)

Reverse B

- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.). There is a diagnostic die crack from the middle of the (DO)L to the arrowheads.
- Die now clashed with a clash in the shield's lower right



This is the first use of this obverse die and third use of this reverse die.

Date grid: M3, .021"	153 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1869
WB-5**



Obverse 4



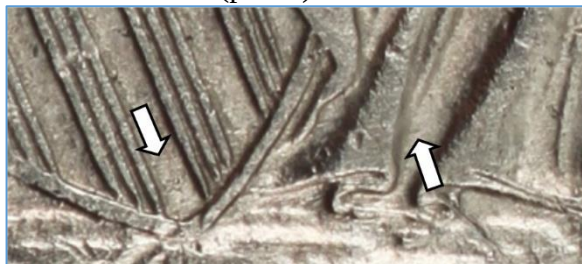
Reverse B (enhanced die cracks in photo at right)

1869 WB-6

Obverse 4



- Date centered (photo)



- Die line from shield into Liberty's gown (photo)



- Two small lumps in Liberty's skirt behind the heel (photo)
- Small lump inside the (LIB)E(RTY)
- Die now clashed with clash lines in the drapery below Liberty's elbow and along her right shin

Reverse C

- No usable die diagnostics seen other than the die crack in the legend
- Die crack in legend (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the second use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"

153 reeds

Typical diameter = 1.205"

Rarity - 3

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: XF40

Coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

**1869
WB-6**



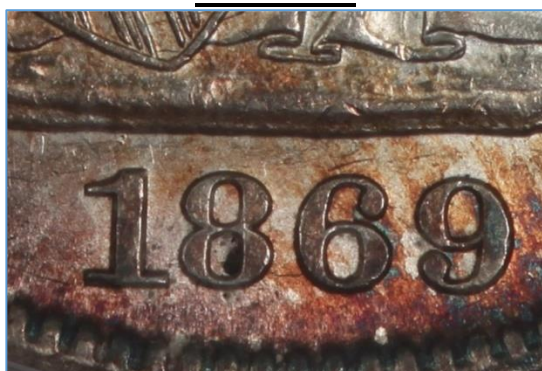
Obverse 4



Reverse C (enhanced die cracks in photo at right)

1869 WB-7

Obverse 4



- Date centered (photo)

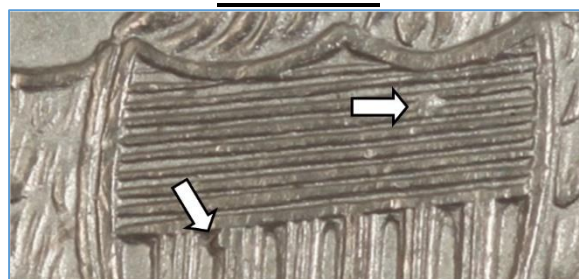


- Die line from shield into Liberty's gown (photo)



- Two small lumps in Liberty's skirt behind the heel (photo)
- Small lump inside the (LIB)E(RTY)
- Die clashes seen in the previous use of this die (WB-6) were polished out and the drapery is now only partial.
- MDS-LDS: die cracks thru several stars (See enhanced die crack diagram on the next page.)

Reverse D



- Two lumps in the shield: one in the horizontal shield lines and another at the top of vertical shield line B1 (photo)



- Small lump on the scroll below the IN (photo)



- Die line along the eagle's lower beak; barely visible even on high grade coins (photo)
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the third use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"	153 reeds	Typical diameter = 1.211"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1869
WB-7**



Obverse 4 (enhanced die cracks in photo at right)



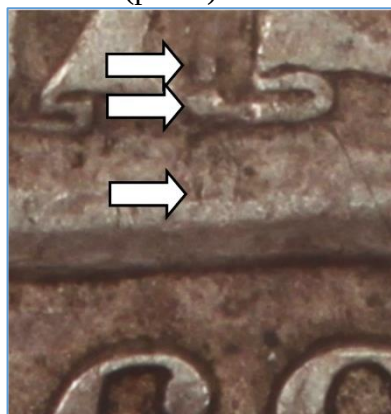
Reverse D (enhanced die cracks in photo at right)

1869 WB-8

Obverse 5



- Date centered (photo)



- Upside down exclamation point shaped die defect in the rock support and hem of Liberty's gown above the (18)69(photo). This defect will only be visible on VF+ graded coins.
- LDS: clash in the drapery below Liberty's elbow, arching clash above the date is from the reverse's scroll

Reverse E

- No usable die diagnostics seen
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in the shield's lower right and thru the scroll from the obverse's rock support

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .025"	153 reeds	Typical diameter = 1.211"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS XF45 CAC		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1869
WB-8**



Obverse 5



Reverse E (enhanced die cracks in photo at right)

1869 WB-9

Obverse 6



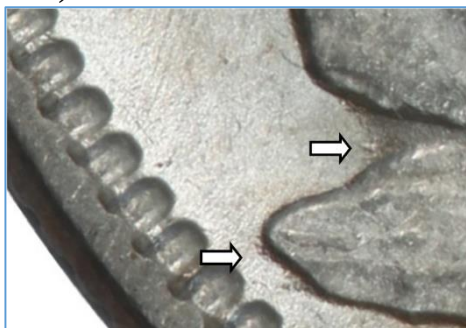
- Date centered (photo)



- Possible digits in the dentils below the date (photos above)

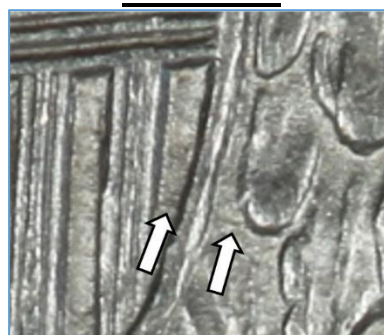


- Die line in rock support from Liberty's heel (photo)



- Small lumps at the left end of the rock and rock support (photo)

Reverse F



- Die line from inside the shield into the eagle's right breast (photo)

This is the only use of this obverse die and only use of this reverse die.
WB-9 is the only die marriage in 1869 with a 146 reed count collar.

Date grid: M3, .022"	146 reeds	Typical diameter = 1.209"	Rarity - 4
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1869
WB-9



Obverse 6



Reverse F

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1870

1870 is a slightly better date with one major die variety, the repunched 1. As with 1869, this date has poor die diagnostics unless you have a high grade coin. Low grade coins will be nearly impossible to attribute and the date placement may be the only aid in determining your die marriage. Nine die marriages are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
633,900	9	6	6	3 (145, 146, 153)

Most 1870 half dollars can be very difficult to properly attribute. For these, the date position is extremely helpful and the following table is useful.

1870 date grid quick reference table

Obverse die date grid	Die Marriage
L5.5, .020"	WB-4
M2.5, .019"	WB-3
M2.5, .023"	WB-5
M2.5, .026"	WB-7
M2.5, .026"	WB-8
M2.5, .028"	WB-9
M3.5, .026"	WB-6
M4.5, .021"	WB-1
M4.5, .021"	WB-2

1870 Die Characteristics.

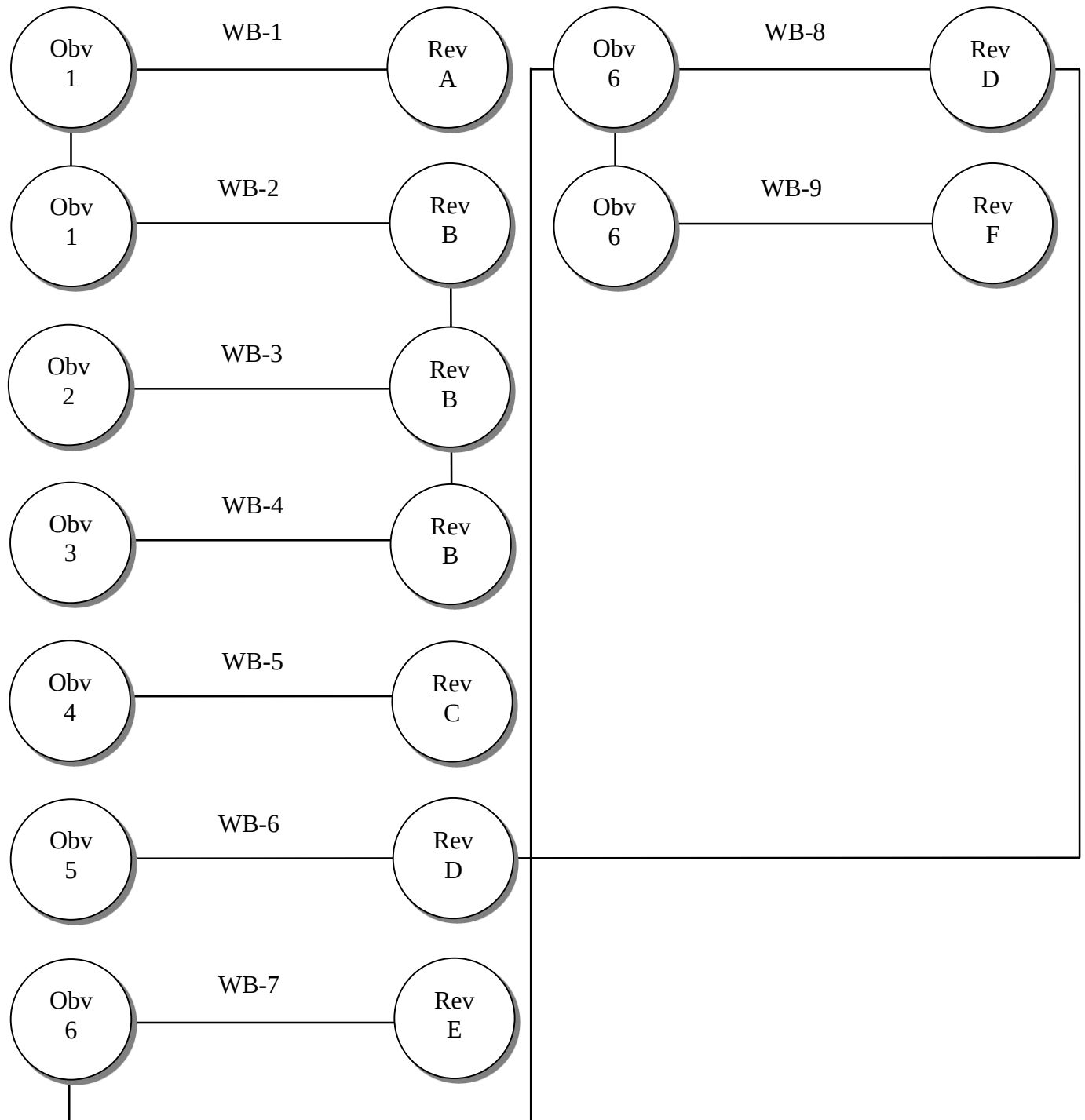
- All 1870 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1870 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1870 obverse and reverse dies have poor die diagnostics to readily identify them. Even in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Reverse die cracks are common for this date and most die cracks are strong enough to help identify the die.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1870 Half Dollar Date Positions

		
Obverse 1, WB-1, WB-2	Obverse 2, WB-3 Repunched 1	Obverse 3, WB-4
		
Obverse 4, WB-5	Obverse 5, WB-6	Obverse 6, WB-7, 8, 9

1870 Half Dollar Obverse and Reverse die identification keys		Die line in the field above (AMER)ICA	Die line on the scroll from IN	Die line in the eagle's mouth	Die line in the recessed area of the scroll next to IN	Die line in the eagle's tail feathers	Die line in the eagle's tail feathers
		A	B	C	D	E	F
Lump in the drapery	1	WB-1	WB-2				
Repunched 1	2		WB-3				
Date far left	3		WB-4				
Die line in Liberty's skirt	4			WB-5			
Die line thru the ribbon	5				WB-6		
Small lumps and lines in Liberty's gown	6				WB-8	WB-7	WB-9

1870 Half Dollar Die Linkage Diagram



1870 WB-1

Obverse 1

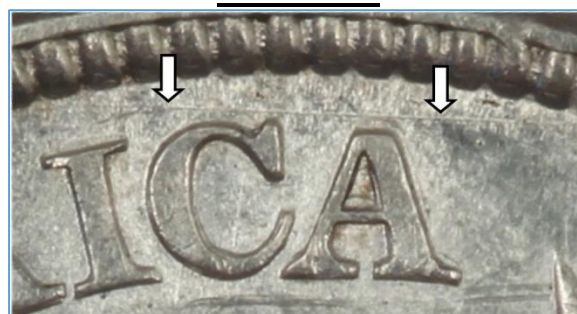


- Date right (photo)



- Small lump in the drapery under Liberty's elbow (photo)

Reverse A



- Die line in the field above (AMER)ICA (photo)



- Vertical die line from olive bud to olive leaf #1 (photo)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M4.5, .021"	153 reeds	Typical diameter = 1.212"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1870
WB-1**



Obverse 1



Reverse A

1870 WB-2

Obverse 1



- Date right (photo)



- Small lump in the drapery under Liberty's elbow (photo)

Reverse B



- Die line on the scroll from IN (photo)
- Die diagnostics are poor for this die and likely not visible on most coins grading below XF.

This is the second use of this obverse die and first use of this reverse die.

Date grid: M4.5, .021"	153 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1870
WB-2**



Obverse 1



Reverse B

1870 WB-3, Repunched 1

Obverse 2



- Date centered (photo)



- The 1 is repunched north with the full base of the 1 showing the repunching (photo)
- Clash in drapery below Liberty's elbow

Reverse B



- Die line on the scroll from IN (photo)
- Die diagnostics are poor for this die and likely not visible on most coins grading below XF.
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)
- Clash in shield's lower right

This is the only use of this obverse die and second use of this reverse die.

Date grid: M2.5, .019"	153 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: ANACS SWH XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1870
WB-3, Repunched 1



Obverse 2



Reverse B (enhanced die cracks in photo at right)

1870 WB-4

Obverse 3



- Date far left (photo). This is the only 1870 obverse die with a date position this far to the left.
- No usable die diagnostics seen other than the date position

Reverse B

- No usable die diagnostics other than the die cracks
- All die states: die cracks thru legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and third use of this reverse die.

Date grid: L5.5, .020"

145 reeds

Typical diameter = 1.201"

Rarity - 3

Drapery die state: Partial

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: XF45

Coin from the Bill Bugert Collection

Cross reference: WB-101.

Version ISA.CS

**1870
WB-4**



Obverse 3



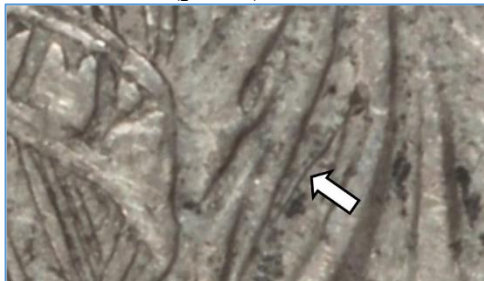
Reverse B (enhanced die cracks in photo at right)

1870 WB-5

Obverse 4



- Date centered (photo)



- Near vertical die line in Liberty's skirt off the end of the scroll (photo)

Reverse C



- Diagonal (NW to SE) die line in the upper closed area of the (AMERICA)A (photo)



- Die line in the eagle's mouth (photo)
- LDS: die crack thru denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .023"	153 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1870
WB-5**



Obverse 4



Reverse C (enhanced die cracks in photo at right)

1870 WB-6

Obverse 5



- Date centered (photo)



- Die line thru the ribbon (photo)



- Die line in the rock support along Liberty's foot (photo)



- Multiple die lines in Liberty's gown to the right of the shield (photo)

Reverse D



- Die line in the recessed area of the scroll next to IN (photo)



- Die line in the eagle's tail feathers behind the arrow feathers (photo)
- LDS: die starting to crack above AMERICA (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3.5, .026"	153 reeds	Typical diameter = 1.214"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS64		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1870
WB-6**



Obverse 5



Reverse D (enhanced die cracks in photo at right)

1870 WB-7

Obverse 6



- Date centered (photo)



- Thick pointed die line from the left end of the rock support (photo)

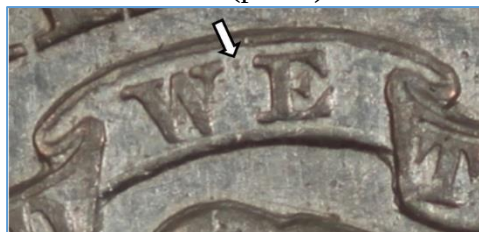


- Small lumps and lines in Liberty's gown below the hair curls (photo)

Reverse E



- Small die line in the eagle's tail feathers at the arrow feathers (photo)



- Small lump on the scroll between WE (photo). This diagnostic will only be visible on high grade coins.
- All examples seen: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M2.5, .026"	146 reeds	Typical diameter = 1.211"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1870
WB-7



Obverse 6



Reverse E (enhanced die cracks in photo at right)

1870 WB-8

Obverse 6



- Date centered (photo)
- The thick pointed die line from the left end of the rock support seen in the previous use of this die (WB-7) is not now visible.



- Small lumps and lines in Liberty's gown below the hair curls (photo)

Reverse D



- Die line in the recessed area of the scroll next to IN (photo)



- Die line in the eagle's tail feathers behind the arrow feathers (photo)
- All examples: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the second use of this obverse die and second use of this reverse die.

Date grid: M2.5, .026"	146 reeds	Typical diameter = 1.204"	Rarity - 3
Dravery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1870
WB-8**



Obverse 6



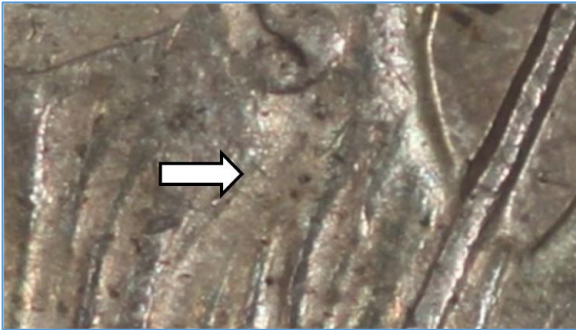
Reverse D (enhanced die cracks in photo at right)

1870 WB-9

Obverse 6



- Date centered (photo)



- Die lines in the folds of Liberty's gown below her hair curls now worn mostly away (photo)
- All examples seen: die cracks thru the date (See enhanced die crack diagram on the next page.)

Reverse F



- Die line in the eagle's tail feathers from the left leg to the arrow feathers (photo)

This is the third use of this obverse die and only use of this reverse die.

Date grid: M2.5, .028"

144 reeds

Typical diameter = 1.204"

Rarity - 3

Drapery die state: Full

Foot support: Full

Dentils: Obverse - Full; Reverse - Full

Grade of coin depicted: EDS: PCGS AU50
LDS: AU53

EDS coin from the Bill Bugert Collection
LDS coin from the Randy Wiley Collection

Cross reference: WB-101.

Version ISA.CS

**1870
WB-9**



Obverse 6 (enhanced die cracks in photo at right)



Reverse F

1871

The U.S. Mint nearly doubled its mintage from the previous year. 1871 half dollars are relatively common, readily available in most circulated and mint state grades, and filled with a few interesting varieties. Twelve die marriages including recut dates, errant digits, crumbling die, and a doubled reverse die are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
1,203,060	12	11	9	1 (145)

For 1871 half dollars, especially those with poor diagnostics and/or without die cracks, can be very difficult to properly attribute. For these, the date position is extremely helpful and the following table is useful.

1871 date grid quick reference table

Obverse die date grid	Die Marriage
M2.5, .026"	WB-1
M3, .020"	WB-5
M3, .025"	WB-11
M3, .026"	WB-12
M3.5, .022"	WB-4
M3.5, .024"	WB-3
M4, .020"	WB-7
M4, .025"	WB-6
M4, .026"	WB-2
M5.5, .022"	WB-10
M5.5, .030"	WB-8
M5.5, .030"	WB-9

1871 Die Characteristics.

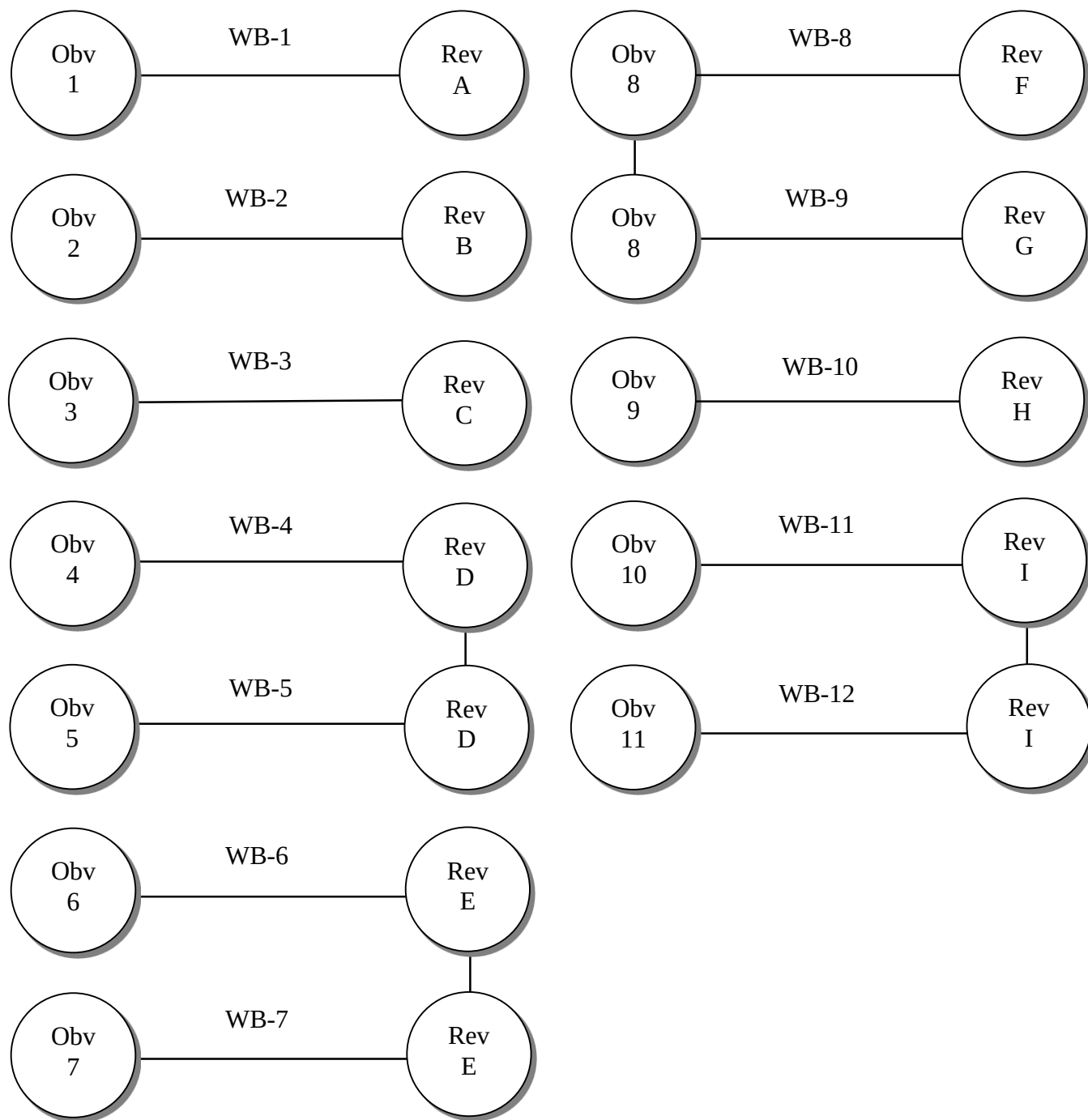
- All 1871 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1871 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Many 1871 obverse and reverse dies have poor die diagnostics to readily identify them. So, even in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Reverse die cracks are uncommon for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1871 Half Dollar Date Positions

 Obverse 1, WB-1 1s in Rock Support, Repunched 2nd 1	 Obverse 2, WB-2 Crumbling Reverse Die	 Obverse 3, WB-3 Repunched 1st 1
 Obverse 4, WB-4	 Obverse 5, WB-5	 Obverse 6, WB-6 Doubled Die Reverse
 Obverse 7, WB-7 Doubled Die Reverse	 Obverse 8, WB-8, WB-9	 Obverse 9, WB-10
 Obverse 10, WB-11 Repunched 1st 1	 Obverse 11, WB-12 Repunched 1st 1	

1871 Half Dollar Obverse and Reverse die identification keys		No usable die diagnostics seen other than the die cracks	Crumbling Reverse die	Short die line between the dentils and left upright of the (A)M(ERICA)	Die line from the left upright thru (U)N(ITED)	Doubled Die Reverse	Die lines from the eagle's left leg into the shield	No usable die diagnostics seen	Die line along the eagle's upper left wing	Two small die lines near WE
		A	B	C	D	E	F	G	H	I
1s in Rock Support, Repunched 2 nd 1	1	WB-1								
Lump in the shield lines above (LIBERT)Y	2		WB-2							
Repunched 1 st 1	3			WB-3						
Possible digit in dentils below the second 1	4				WB-4					
No usable die diagnostics	5				WB-5					
Die gouge in the shield's lower right above the (LIBERT)Y	6					WB-6				
Die line inside the upper loop of the (LIBE)R(TY)	7					WB-7				
Lump on Liberty's right bicep	8						WB-8	WB-9		
Small lumps in the shield's lower left	9								WB-10	
Repunched 1 st 1	10									WB-11
Repunched 1 st 1	11									WB-12

1871 Half Dollar Die Linkage Diagram



1871

WB-1, 1s in Rock Support, Repunched 2nd 1

Obverse 1

- Date slightly low (photo)

- The left base of an errant 1 is in the rock support above the space between the 18. A

second errant 1 is in the edge of the rock support above the 1. The errant 1 fades quickly with coin wear and is only visible on coins grading fine or better. (photos above)

- The second 1 is repunched north with repunching showing along the base of the 1. (photo at right)

Reverse A

- No usable die diagnostics seen other than the die cracks
- Die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M2.5, .026"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS63	LDS coin from the Randy Wiley Collection		
Cross reference: WB-102.			Version ISA.CS

1871

WB-1, 1s in Rock Support, Repunched 2nd 1



Obverse 1



Reverse A (enhanced die cracks in photo at right)

1871 WB-2, Crumbling Reverse Die

Obverse 2



- Date centered (photo)



- Lump in the shield lines above (LIBERT)Y and a die line in the shield below (LIB)E(RTY) (photo)
- MDS-LDS: die crack along stars #1-3 (See enhanced die crack diagram on the next page.)

Reverse B



- The reverse die is deteriorating with heavy rust remnants and distorted details throughout the eagle. A portion is shown above and full coin image is on the next page. (photos)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4, .026"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1871
WB-2, Crumbling Reverse Die



Obverse 2 (enhanced die cracks in photo at right)



Reverse B

1871 WB-3, Repunched 1st 1

Obverse 3



- Date centered (photo). Possible digits in the dentils below the date.



- The first 1(871) is repunched south with the repunching showing above the base of the 1. (photo)



- Small lump in Liberty's neckline near her hair curls(photo)

Reverse C



- Short die line between the dentils and left upright of the (A)M(ERICA) (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M3.5, .024"	145 reeds	Typical diameter = 1.205"	Rarity - 3
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Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full
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Grade of coin depicted: MS62	Coin from the Randy Wiley Collection
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Cross reference: WB-103.	Version ISA.CS
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1871
WB-3, Repunched 1st 1



Obverse 3



Reverse C

1871 WB-4

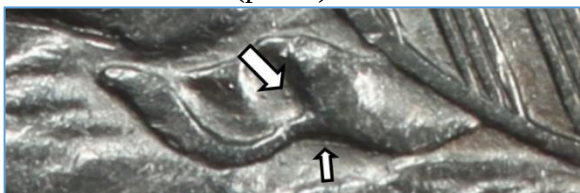
Obverse 4



- Date centered (photo)



- Possible digit in dentils below the right edge of the second 1 (photo)



- Small lump on the ribbon and a fine die line below the ribbon (photo)

Reverse D



- Diagonal die line from the left upright thru (U)N(ITED) into the dentils above I (photo)



- High grade coins only: small lumps on the scroll between the letters TR(UST) (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3.5, .022"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1871
WB-4



Obverse 4



Reverse D

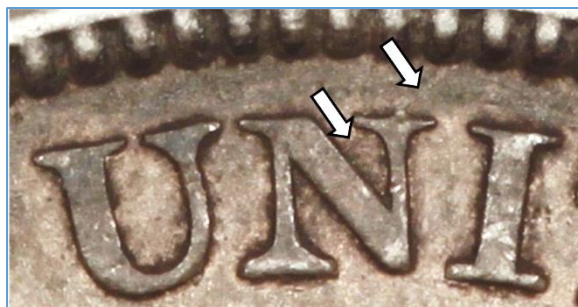
1871 WB-5

Obverse 5



- Date centered (photo)
- No usable die diagnostics seen other than the die cracks thru the stars (See enhanced die crack diagram on the next page.)

Reverse D



- Diagonal die line from the left upright thru (U)N(ITED) into the dentils above I (photo)



- High grade coins only: small lumps on the scroll between the letters TR(UST) (photo)
- MDS-LDS: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M3.0, .020"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1871
WB-5**



Obverse 5 (enhanced die cracks in photo at right)



Reverse D

1871 WB-6, Doubled Die Reverse

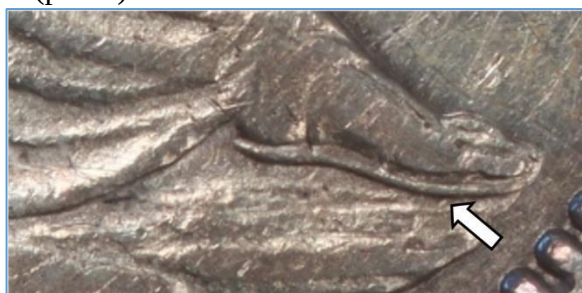
Obverse 6



- Date centered (photo)



- Thick vertical die line or die gouge in the shield's lower right above the (LIBERTY)Y (photo)



- Die line from the ball of Liberty's foot into the rock support (photo)

Reverse E



- High grade coins only: Die doubling visible on the letters (S)TATE)S and WE (photo)



- EDS-MDS: Long die line in the eagle's left wing to the left of the horizontal shield lines (photo)



- Very short die line in the eagle's left wing to the left of the lower shield (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M4, .025"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1871
WB-6, Doubled Die Reverse



Obverse 6



Reverse E

1871 WB-7, Doubled Die Reverse

Obverse 7



- Date centered (photo)



- Die line inside the upper loop of the (LIBE)R(TY) (photo above left)
- Horizontal die line below Liberty's ear (photo above right)

Reverse E



- High grade coins only: Die doubling visible on the letters (S)TATE(S) and WE (photo)
- The long die line in the eagle's left wing to the left of the horizontal shield lines seen in the previous use of this die (WB-6) is not now visible.



- Very short die line in the eagle's left wing to the left of the lower shield (photo)
- Die cracks thru legend and arrowheads (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M4, .020"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU53		Coin from the Bill Bugert Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1871
WB-7, Doubled Die Reverse



Obverse 7



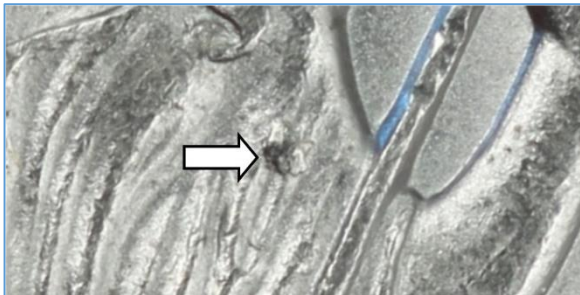
Reverse E (enhanced die cracks in photo at right)

1871 WB-8

Obverse 8



- Date right and slanting down to right (photo)



- Large lump on Liberty's right bicep (photo)

Reverse F



- Two die lines from the eagle's left leg into the shield (photo)



- Two faint horizontal die lines in the eagle's feathers at the upper right shield (photo)
- MDS-LDS: die cracks thru arrow heads (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and only use of this reverse die.

Date grid: M5.5, .030"	145 reeds	Typical diameter = 1.206"	Rarity - 3
Dravery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1871
WB-8**



Obverse 8



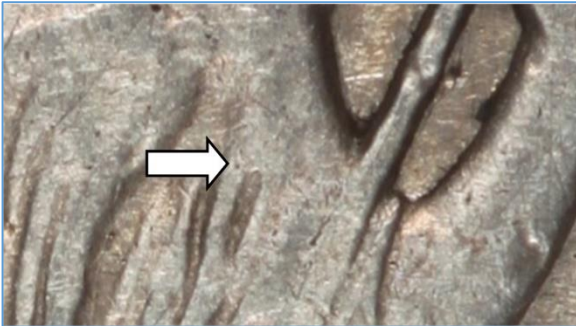
Reverse F (enhanced die cracks in photo at right)

1871 WB-9

Obverse 8



- Date right and slanting down to right (photo)



- Large lump on Liberty's right bicep (photo)

Reverse G

- No usable die diagnostics seen. A higher grade example of this die marriage is needed for study.

This is the second use of this obverse die and only use of this reverse die.

Date grid: M5.5, .030"	145 reeds	Typical diameter = 1.204"	Rarity - 4
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: VF35		Coin from the Dick Osburn Collection	
Cross reference: WB-101.			Version ISA.CS

**1871
WB-9**



Obverse 8



Reverse G

1871 WB-10

Obverse 9



- Date right (photo)



- All die states: at least 5 small lumps in the shield's lower left near the ribbon (photo)



- EDS-MDS only: horizontal die lines from the scroll/shield into Liberty's skirt (photo)
- Die cracks thru stars #1-6 and along the base of the date (See enhanced die crack diagram on the next page.)

Reverse H



- Arching die line along the eagle's upper left wing adjacent to the shield (photo)



- Very high grade coins only: small lump on olive leaf #1's stem (photo)

This is the only use of this obverse die and only use of this reverse die.

Date grid: M5.5, .022"	145 reeds	Typical diameter = 1.206"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: EDS: MS64 LDS: PCGS AU58		EDS coin from the Randy Wiley Collection LDS coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

**1871
WB-10**



Obverse 9 (enhanced die cracks in photo at right)



Reverse H

1871
WB-11, Repunched 1st 1

Obverse 10



- Date left and low (photo)



- The 1st 1 is repunched north. The repunching shows below the base of the 1st 1. (photos above). Possible digit in dentils below the 1st 1.



- Faint die line in the shield below the letters (LIBER)TY (photo)
- Die cracks starting in the stars (See enhanced die crack diagram on the next page.)

Reverse I



- Two small die lines near WE: one on the scroll above the left side of (W)E and the other sticking out of the scroll above (W)E (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: M3.0, .025"	145 reeds	Typical diameter = 1.206"	Rarity - 4
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1871
WB-11, Repunched 1st 1



Obverse 10 (enhanced die cracks in photo at right)



Reverse I

1871 WB-12, Repunched 1st 1

Obverse 11



- Date centered (photo)



- The 1st 1 is repunched south. Repunching shows above the lower right serif. (photo)



- Small lumps under Liberty's chin (photo)

Reverse I



- Two small die lines near WE: one on the scroll above the left side of (W)E and the other sticking out of the scroll above (W)E (photo)

This is the only use of this obverse die and second use of this reverse die.

Date grid: M3, .026"	unknown reeds	Typical diameter = unknown"	Rarity - 4
Draperies die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS XF40		Coin from the Dick Osburn Collection	
Cross reference: WB-Unlisted.			Version ISA.CS

1871
WB-12, Repunched 1st 1



Obverse 11



Reverse I

1872

This date has a large mintage and is readily available in almost all grades. Only one popular variety is known (obverse 2 with errant digits in the rock support) and this is the first year that the engraving department at the U.S. Mint punched the dates more to the right than in the past (See date grid table below). Ten die marriages are known as depicted in the table below.

Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
880,600	10	8	5	1 (145)

The date position is extremely helpful and the following table is useful.

1872 date grid quick reference table

Obverse die date grid	Die Marriage
M3.5, .028"	WB-2
M3.5, .028"	WB-3
M4, .022"	WB-4
R1, .020"	WB-1
R1, .026"	WB-8
R1.5, .020"	WB-10
R1.5, .020"	WB-9
R3, .025"	WB-5
R4, .018"	WB-7
R4, .020"	WB-6

1872 Die Characteristics.

- All 1872 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1872 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Many 1872 obverse and reverse dies have die diagnostics that are visible only on higher grade coins. The date position can be very useful in identifying these die marriages.
- Many obverse stars appear to have repunched stars. I believe this characteristic is not repunching of the stars but results from poor or improper finished die preparation.
- Clash marks are uncommon for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1872 Half Dollar Date Positions



Obverse 1, WB-1



Obverse 2, WB-2, WB-3
Errant Digits in Rock Support



Obverse 3, WB-4



Obverse 4, WB-5



Obverse 5, WB-6



Obverse 6, WB-7



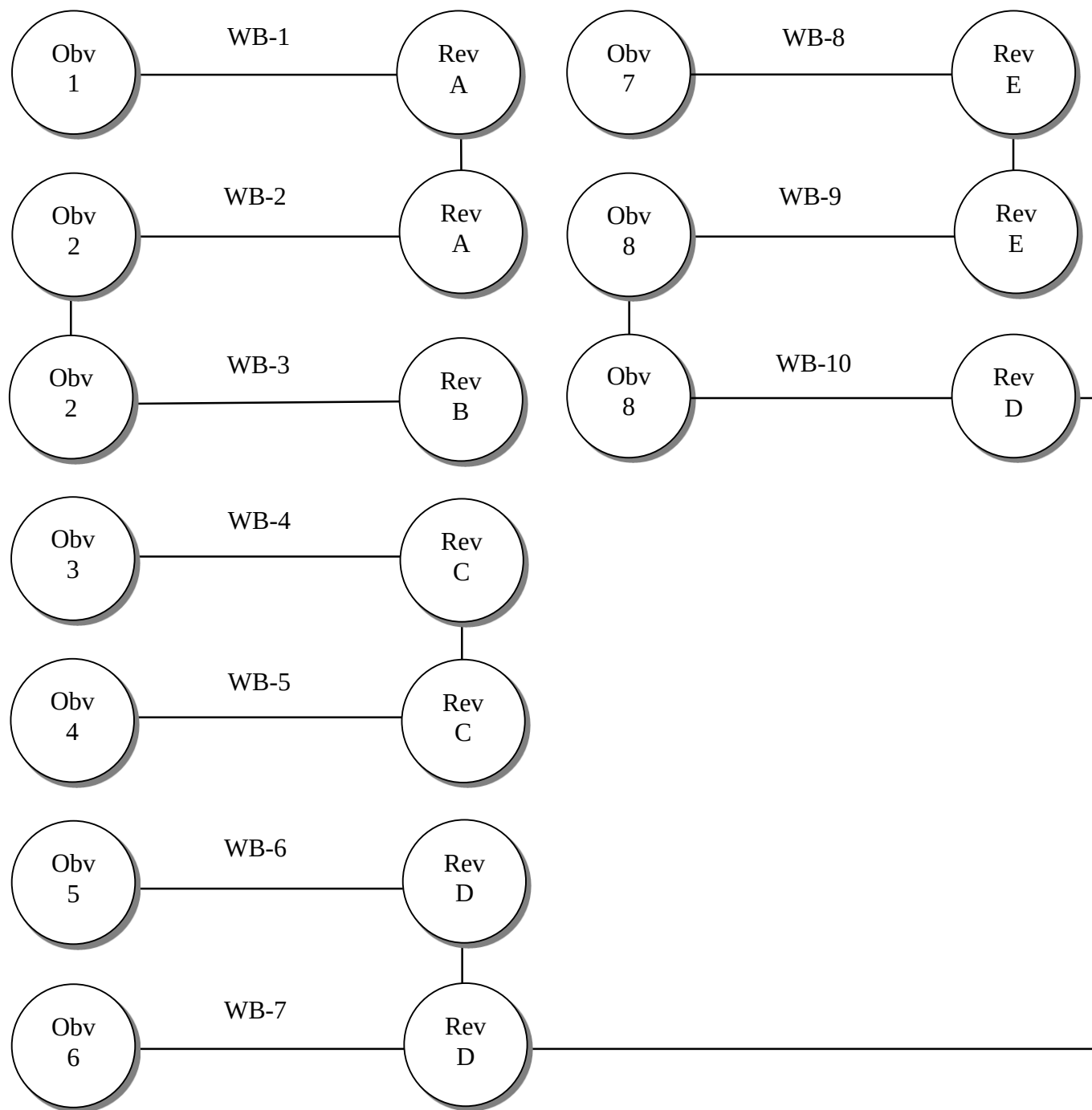
Obverse 7, WB-8



Obverse 8, WB-9, WB-10

1872 Half Dollar Obverse and Reverse die identification keys		Die lines from the dentils to the letters (UNI)TE(D)	Tine from the dentils above (S)T(ATES)	Die lines in the dentils	Tiny lump on the top of (UNI)T(ED)	Die line from the dentils thru (UNITE)D
		A	B	C	D	E
Die line on rock near left hand	1	WB-1				
Digits in the rock support above the date	2	WB-2	WB-3			
Lump in the lower shield	3			WB-4		
Half loop in rock support above the 7	4			WB-5		
Die line from Liberty's index finger	5				WB-6	
Date far right	6				WB-7	
Half loop in rock support above the 7	7					WB-8
Lump on Liberty's gown below the hemline	8				WB-10	WB-9

1872 Half Dollar Die Linkage Diagram

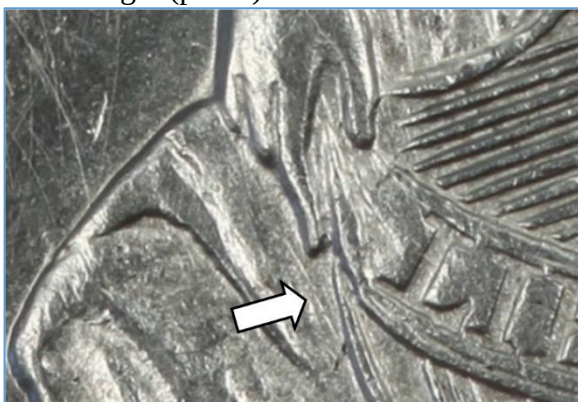


1872 WB-1

Obverse 1



- Date right (photo)

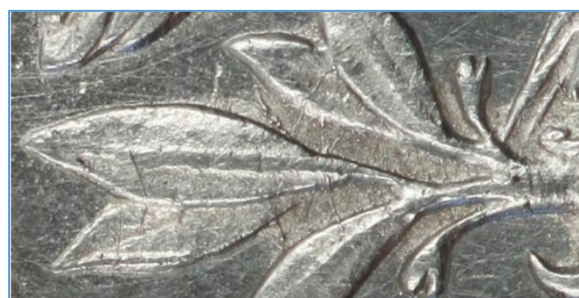


- Die line on rock near left hand (photo)

Reverse A



- Several die lines from the dentils to the letters (UNI)TE(D) (photo)



- Die lines thru olive leaves #2-4 (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: R1, .020"	145 reeds	Typical diameter = 1.205"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU50		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1872
WB-1**



Obverse 1



Reverse A

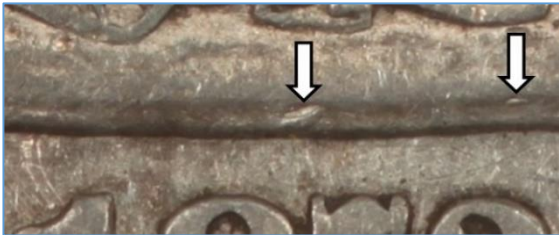
1872

WB-2, Errant Digits in Rock Support

Obverse 2



- Date left and low (photo)

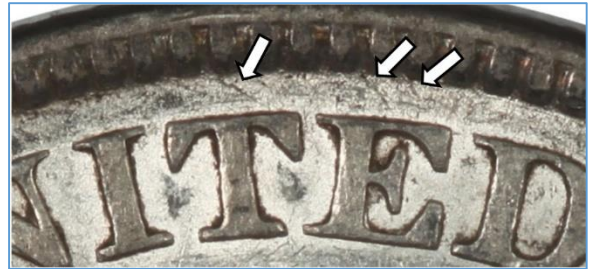


- Two misplaced digits are in the rock support above the date. The first misplaced digit is part of an 8 above the space between the 87; the second is a digit fragment above the 2 (photos above)



- The flag of the 1 is repunched north; repunching shows below the flag. (photo)

Reverse A



- Several die lines from the dentils to the letters (UNI)TE(D) (photo)



- Die lines thru olive leaves #2-4 (photo)
- All die states: die cracks thru legend and denomination (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and second use of this reverse die.

Date grid: M3.5, .028"	145 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-102.			Version ISA.CS

1872

WB-2, Errant Digits in Rock Support



Obverse 2



Reverse A (enhanced die cracks in photo at right)

1872

WB-3, Errant Digits in Rock Support

Obverse 2



- Date low (photo)



- Two misplaced digits are in the rock support above the date. The first misplaced digit is part of an 8 above the space between the 87; the second is a digit fragment above the 2 (photos above)
- Die cracks on the left side of the die and along the base of the date (See enhanced die crack diagram on the next page.)

Reverse B



- Rough fields from lumps and lines below the eagle's tail feathers and arrowhead feathers (photo)



- Small tine from the dentils above (S)T(ATES) (photo)
- Die crack thru denomination (See enhanced die crack diagram on the next page.)

This is the second use of this obverse die and only use of this reverse die.

Date grid: M3.5, .028"	Unknown reeds	Typical diameter = Unknown"	Rarity - 4
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS63+ CAC		Coin from the Dick Osburn Collection	
Cross reference: WB-102.			Version ISA.CS

1872

WB-3, Errant Digits in Rock Support



Obverse 2 (enhanced die cracks in photo at right)

(Photos courtesy of Stack's Bowers)



Reverse B (enhanced die cracks in photo at right)

1872 WB-4

Obverse 3



- Date centered (photo)



- Small lump in the lower shield midway on vertical shield line B3 (photo)



- Die line in drapery from Liberty's elbow (photo)
- Die cracks (See enhanced die crack diagram on the next page.)

Reverse C



- Concentric die lines in the dentils around the circumference. Shown here are the lines above (ST)ATE(S). (photo)



- Die lines in the eagles' left wing (photo)
- All examples seen of this reverse die have very strong bounce doubling.

This is the only use of this obverse die and first use of this reverse die.

Date grid: M4, .022"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1872
WB-4**



Obverse 3 (enhanced die cracks in photo at right)



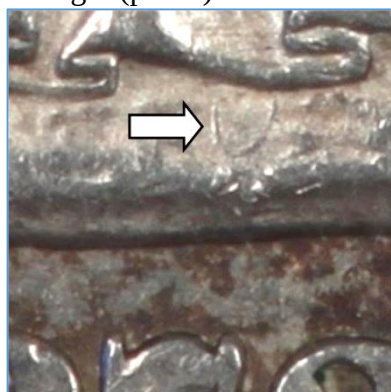
Reverse C

1872 WB-5

Obverse 4



- Date far right (photo)



- Half loop in the rock support above the 7. It may be the weak lower upright of a digit 7. (photo). This half loop is also on WB-8 but it is a different die with a different date position.

Reverse C



- Concentric die lines in the dentils around the circumference. Shown here are the lines above (ST)ATE(S) (photo)



- Die lines in the eagles' left wing (photo)
- All examples seen of this reverse die have very strong bounce doubling.
- Die cracks thru legend and arrowheads (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Date grid: R3, .025"	145 reeds	Typical diameter = 1.200"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1872
WB-5



Obverse 4



Reverse A (enhanced die cracks in photo at right)

1872 WB-6

Obverse 5



- Date far right (photo)



- Die line from Liberty's index finger and in the rock below the finger along the shield (photo)

Reverse D



- Tiny lump on the top of (UNI)T(ED) (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: R4, .020"	145 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF40		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1872
WB-6



Obverse 5



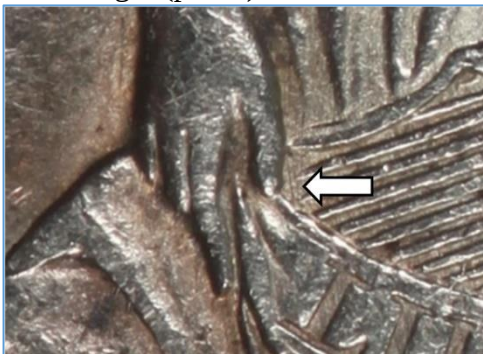
Reverse D

1872 WB-7

Obverse 6



- Date far right (photo)



- Vertical die line next to Liberty's left thumb (photo)



- Horizontal die line in Liberty's gown above her elbow (photo)
- Die crack thru stars #1-6 (See enhanced die crack diagram on the next page.)

Reverse D



- Tiny lump on the top of (UNI)T(ED) (photo)

This is the only use of this obverse die and second use of this reverse die.

Date grid: R4, .018"	145 reeds	Typical diameter = 1.201"	Rarity - 3
Drapery die state: Partial	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Bill Bugert Collection	
Cross reference: WB-101.			Version ISA.CS

1872
WB-7



Obverse 6 (enhanced die cracks in photo at right)



Reverse D

1872 WB-8

Obverse 7



- Date right and low (photo)



- Half loop in the rock support above the 7. It may be the weak lower upright of a digit 7. (photo). This half loop is also on WB-5 but it is a different die with a different date position.



- The 1 is repunched slightly north with the repunching below the base of the 1 (photo)

Reverse E



- Prominent near vertical die line from the dentils thru (UNITE)D, the scroll near IN, to the eagle's left wing (photo)

This is the only use of this obverse die and first use of this reverse die.

Date grid: R1, .026"	145 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS62		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1872
WB-8



Obverse 7



Reverse E (enhanced die cracks in photo at right)

1872 WB-9

Obverse 8



- Date right (photo)



- Lump on Liberty's gown below the hemline (photo)



- Lint mark on Liberty's gown behind her heel (photo)

Reverse E



- Prominent near vertical die line from the dentils thru (UNITE)D, the scroll near IN, to the eagle's left wing (photo), now much weaker than on the previous use of this die (WB-8).
- MDS-LDS: die cracks thru legend (See enhanced die crack diagram on the next page.)

This is the first use of this obverse die and second use of this reverse die.

Date grid: R1.5, .020"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Dravery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS60		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

**1872
WB-9**



Obverse 8



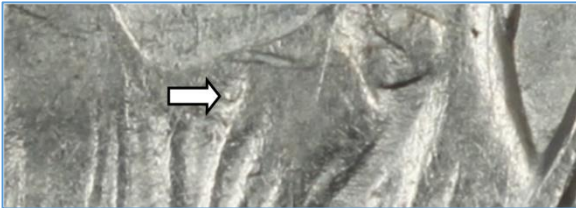
Reverse E (enhanced die cracks in photo at right)

1872 WB-10

Obverse 8



- Date right (photo)

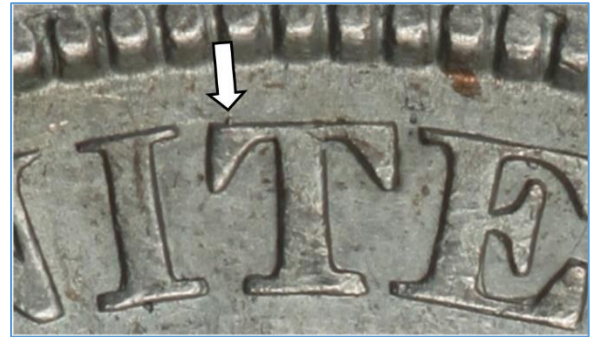


- Lump on Liberty's gown below the hemline (photo)



- Heavy clash marks on Liberty's knee (photo)

Reverse D



- Tiny lump on the top of (UNI)T(ED) (photo)
- Clash in shield's lower right

This is the second use of this obverse die and third use of this reverse die.

Date grid: R1.5, .020"	145 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1872
WB-10



Obverse 8



Reverse D

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1873 No Arrows

By all accounts, 1873 is a great date! Immortalized by Harry X Boosel, Mr. 1873, this date has a lot of interesting variations and the half dollars are no different. This Register focuses on the No Arrows varieties and the extremely popular Closed 3 / Open 3 modification dominate the varieties. Presumably, most No Arrows Open 3 half dollars were melted for With Arrows coins when the new weight standard became effective on April 1, 1873.

Seven die marriages are known as depicted in the table below.

Style of 3	Mintage	Number of Die Marriages	Obverse Dies	Reverse Dies	Circulation Strike Reed Counts Known
Closed 3	587,000	5	4	4	2
Open 3	214,200	2	2	2	(144, 145)

Most 1873 No Arrows half dollar dies are easily distinguishable by diagnostic lumps but the date placement can be useful for attributing low grade coins.

1873 No Arrows date grid quick reference table

Obverse die date grid	Die Marriage
M4.5, .022"	WB-1
M5.5, .022"	WB-3
M5.5, .023"	WB-2
R1, .020"	WB-7
R2.5, .020"	WB-5
R2.5, .022"	WB-6
R3, .014"	WB-4

1873 No Arrows Die Characteristics.

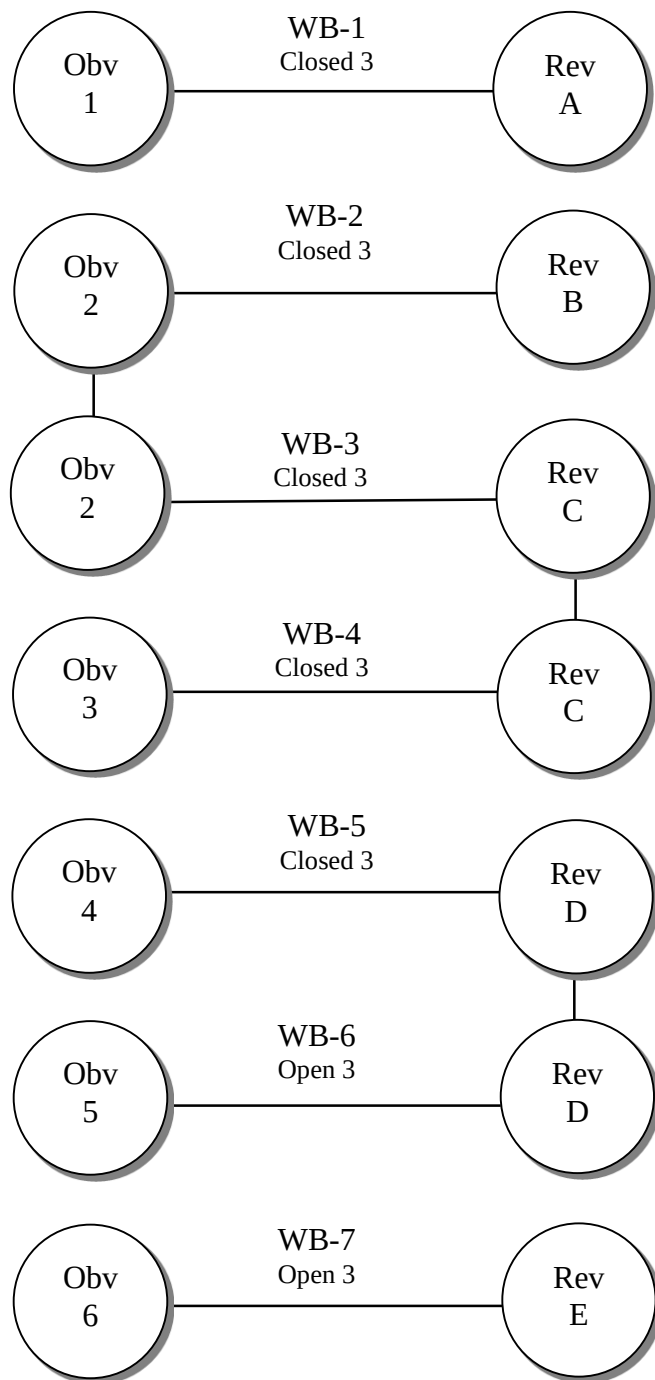
- All 1873 reverse dies are from the With Motto Master Die 2.
- Strongly struck 1873 half dollars are the norm. Weak strikes (with the exception of minor weak areas of the coin such as stars and Liberty's head) are less common.
- Most 1873 No Arrows obverse and reverse dies have excellent die diagnostics to readily identify them. But in lower circulated grades, the date position can be very useful in identifying the die marriage.
- Reverse die cracks are uncommon for this date.
- Sometimes during die preparation, unfinished or poorly finished portions of the dies are common and appear as raised or rough areas of the coin. Specifically, the following:
 - Under Liberty's chin
 - Under and around the olive leaves
 - Under and around the arrowheads

1873 No Arrows Half Dollar Date Positions

		
Obverse 1, WB-1 Closed 3 Repunched 73	Obverse 2, WB-2, WB-3 Closed 3 187 in Dentils	Obverse 3, WB-4 Closed 3 Tripled 3
		
Obverse 4, WB-5 Closed 3	Obverse 5, WB-6 Open 3	Obverse 6, WB-7 Open 3

1873 No Arrows Half Dollar Obverse and Reverse die identification keys			Many die lines on the scroll	Small lump on the top of (STA)T(ES)	Large lump in the eagle's right wing to the right of the horizontal shield lines	No usable die diagnostics seen	No usable die diagnostics seen
			A	B	C	D	E
Repunched 73	1	Closed 3	WB-1				
187 in Dentils	2			WB-2	WB-3		
Tripled 3	3				WB-4		
Lumps between Liberty's knees	4	Open 3				WB-5	
Lumps on Liberty	5					WB-6	
Lump on Liberty's neck	6						WB-7

1873 No Arrows Half Dollar Die Linkage Diagram



1873 No Arrows WB-1, Closed 3, Repunched 73

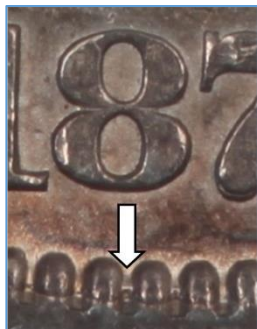
Obverse 1



- Date centered slanting down to the right (photo)



- (18)73 repunched north with the first punching showing at the bottoms of digits 73 (photo)



- Possible digit in dentils below the (1)8(73) (photo)

Reverse A



- Many die lines on the scroll (photo). These die lines will only be visible on high grade coins.

This is the only use of this obverse die and only use of this reverse die.

Date grid: M4.5, .022"	144 reeds	Typical diameter = 1.204"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS AU55		Coin from the Bill Bugert Collection	
Cross reference: WB-105.			Version ISA.CS

1873 No Arrows
WB-1, Closed 3, Repunched 73



Obverse 1



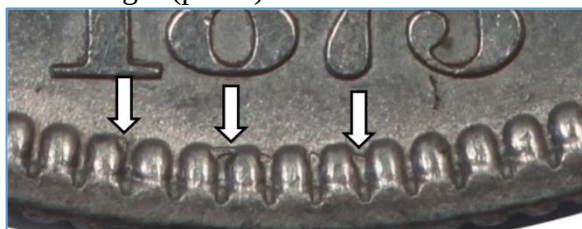
Reverse A

1873 No Arrows WB-2, Closed 3, 187 in Dentils

Obverse 2



- Date right (photo)



- EDS-LDS: all three digits 187(3) show in the dentils below the prominent date (photo). These digits in the dentils fade with advancing die state.



- Large lump on Liberty's right leg calf below the drapery (photo)

Reverse B



- Small lump on the top of (STA)T(ES) (photo). Also note the unfinished die features around the letters and along the dentils.

This is the first use of this obverse die and only use of this reverse die.

Date grid: M5.5, .023"	145 reeds	Typical diameter = 1.203"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS61		Coin from the Randy Wiley Collection	
Cross reference: WB-103.			Version ISA.CS

1873 No Arrows
WB-2, Closed 3, 187 in Dentils



Obverse 2



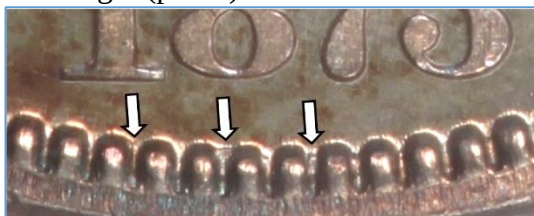
Reverse B

1873 No Arrows WB-3, Closed 3, 187 in Dentils

Obverse 2



- Date right (photo)



- EDS-MDS: all three digits 187(3) show in the dentils below the prominent date (photo). These digits in the dentils fade with die state (see below).



- LDS: dentils worn/no digits visible (photo)



- Large lump on Liberty's right leg calf below the drapery (photo)

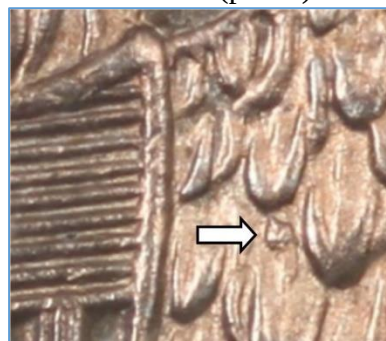
Reverse C



- Small lump along the lower edge of olive leaf #4 (photo)



- Lump in the eagle's tail feathers above the upper arrow feathers (photo)



- Large lump in the eagle's right wing to the right of the horizontal shield lines (photo)

This is the second use of this obverse die and first use of this reverse die.

Date grid: R1-, .022"	EDS: 145 reeds LDS: 144 reeds	Typical diameter = 1.202"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: PCGS MS63 and PCGS AU53		Coins from the Bill Bugert Collection	
Cross reference: WB-103.		Version ISA.CS	

1873 No Arrows
WB-3, Closed 3, 187 in Dentils



Obverse 2



Reverse C

1873 No Arrows WB-4, Closed 3, Tripled 3

Obverse 3



- Date far right and high(photo)



- The 3 in the date is triple punched north. The bottom of two extra 3s (one heavy and one very light) show below the prominent 3. (photo)



- Die line in the drapery below Liberty's elbow (photo)
- Small lump in Liberty's gown behind her foot and a die line from her heel into the rock support (full photo next page)

Reverse C



- Small lump along the lower edge of olive leaf #4 (photo)



- Lump in the eagle's tail feathers above the upper arrow feathers (photo)



- Large lump in the eagle's right wing to the right of the horizontal shield lines (photo)
- All examples seen: die cracks along the legend (See enhanced die crack diagram on the next page.)

This is the only use of this obverse die and second use of this reverse die.

Date grid: R3, .014"	144 reeds	Typical diameter = 1.206"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: MS64		Coin from the Randy Wiley Collection	
Cross reference: WB-104.			Version ISA.CS

**1873 No Arrows
WB-4, Closed 3, Tripled 3**



Obverse 3



Reverse C (enhanced die cracks in photo at right)

1873 No Arrows WB-5, Closed 3

Obverse 4



- Date far right (photo)



- Two small lumps in Liberty's gown to the right of her forearm (photo)



- Small lumps between Liberty's knees (photo)
- Weak clash in Liberty's drapery

Reverse D

- No usable die diagnostics seen
- Clash in shield's lower right

This is the only use of this obverse die and first use of this reverse die.

Date grid: R2.5, .020"	144 reeds	Typical diameter = 1.207"	Rarity - 3
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: AU55		Coin from the Randy Wiley Collection	
Cross reference: WB-102.			Version ISA.CS

**1873 No Arrows
WB-5, Closed 3**



Obverse 4



Reverse D

1873 No Arrows Open 3 Half Dollar

The 1873 No Arrows Open 3 half dollar is by far the most popular die variety in the date range of this Register and therefore merits extra attention. Popularized by Mr. 1873, Harry X Boosel, and known examples initially itemized by John McCloskey in *Gobrecht Journal* articles, its notoriety has long endured. Many collectors actively search for this variety, it is sometimes available attributed, and it can be purchased for a premium price. There are two die marriages for the 1873 No Arrows Open 3 half dollar and both are detailed on the following pages.

Background. 1873 half dollars were minted in three phases in the following order: No Arrows Closed 3, No Arrows Open 3, and With Arrows (effective April 1, 1873). Most of the Open 3 half dollars likely were melted for production of the With Arrows half dollars.

The genesis for the Closed 3 / Open 3 coinage change precipitated from the January 18, 1873, letter from the Chief Coiner of the Philadelphia Mint (A. Loudon Snowden) to the Director of the U.S. Mint (Honorable James Pollock). Snowden wrote:

“I desire in a formal manner to direct your attention to the ‘figures’ used in dating the dies for the present year.

They are so heavy, and the space between them so small, that upon the smaller gold and silver, and upon the base coins, it is impossible to distinguish with the naked eye, whether the last figure is an eight or a three.

In our ordinary coinage, many of the pieces are not fully brought up, and upon such it is impossible to distinguish what is the last figure of the year’s date.

I do not think it creditable to the institution that the coinage of the year should be issued bearing this defect in the date.

I would recommend that an entire new set of figures, avoiding the defects of those now in use, be prepared at the earliest possible day.”

M.L. Beistle. M.L. [as he was then and now called] unwittingly mentioned what we now call the 1873 No Arrows Open 3 half dollar in his 1929 exceptional half dollar reference *A Register of Half Dollar Die Varieties and Sub-Varieties*⁶. He listed seventeen 1873 half dollar varieties, two of which are 1873 No Arrows at Date [open 3] as follows:

“1873 1 A. No arrow heads are at the date. The foot is only partially supported, and the toe is not enclosed. The two knobs of 3 are far apart. [emphasis added]

Rev. A. Perfect. Proof.”

This is what I now call the WB-7 variety.

“1873 4 A. Low date with new type of 3, very small knobs and set far apart. There are two round lumps defects on the right leg near the knee, and another on the neck. [emphasis added]

Rev. A. Same as letter A.”

This is what I now call the WB-6 variety.

⁶ Beistle, Martin Luther. *A Register of Half Dollar Die Varieties and Sub-Varieties*. Shippensburg, PA: The Beistle Company, 1929.

Harry X Boosel. Harry X Boosel became famous as Mr. 1873 for publicizing the 1873 No Arrows Open 3 half dollar and other coinage of 1873 starting in 1950⁷. He relates in April



1973: “The 1873 No Arrows Philadelphia half dollar with Open 3 is very rare. In over 20 years of intensive searching I found only two...When I say intensively, I mean intensively. Every auction, bourse, and convention I attended in over 20 years, I looked for the Open 3 half no arrows. Whenever a nonproof no arrows half was listed for sale in auction, price list or publication of any kind, I wrote the advertiser that if it looked like the right-hand 1873 on the top of this article [*as above right, his logo with closed and open 3 dates*], to send it to me and I would remit promptly or hold it and I would send a check.” Harry displayed his collection of over 50 Closed 3 half dollars at the 1986 Coinage of Americas Conference. As the years progressed and more collectors searched for this variety (thanks to his efforts), more were found and later tallied in the *Gobrecht Journal* [next paragraph].

Gobrecht Journal. In the lead article of the November 1979 issue of the *Gobrecht Journal*⁸, Liberty Seated Collectors Club President and Editor John McCloskey introduced and listed eight examples of the 1873 No Arrows Open 3 half dollar as identified by Harry X Boosel. Condition, owner, supplementary information, and images of five of them are included. Articles in later *Gobrecht Journal* issues⁹ identified two additional examples. Many more were found later that were not listed in the *Gobrecht Journal*. As a result of this information from the 1979 article, I found my unattributed F12 coin at a Palmetto, GA coin show in 1980. In 1987 I learned that an attentive collector found six of them, grading AG, G, VG, VG, F, and XF in the early 1980s mostly in the Georgia/South Carolina area.

Spring 2022. I have exhaustively researched the extant examples of this variety and, after publication of this Register, I will finalize and publish (online) a reference of the known examples of the 1873 No Arrows Open 3 half dollar, similar in format to what I published on the 1878-S half dollar. I believe there exists about 75-80 examples of this variety, comprised of two die marriages. Almost all the existing examples are WB-6, the Circulation Strike die marriage.

Of particular interest is the second die marriage (WB-7), the “Proof” example. Currently unique, I studied this coin multiple times in 1989-1990 when Jim O’Donnell owned it and I believe its proof status is undeniable. Jim won it in the Auction ’86 RARCOA sale, lot 657 @ \$11,000. In June 1989, he submitted it to NGC where it graded Proof-61, holder number 212782-001. Jim owned it at least thru 1990. This coin (still in the NGC Proof-61 holder) appeared a few times since then, lastly (that I know of) in the Stack’s Bowers August 2011 Chicago ANA Auction, lot 7367 @ \$31,625. Regrettably, someone crossed this coin to PCGS, in what I call one of the worst upgrade attempts known, where it was graded and encapsulated as MS63, holder number 24464544. This coin lost its “holdered” proof status; it is still a proof but in a MS holder. Comparison of the two images on the following page prove it is the exact same coin. Other examples of this die marriage may exist and, if so, they are extremely rare. By the way, all other Proof 1873 No Arrows half dollars have a Closed 3.

⁷ Many article and books including Boosel, Harry X. *1873-1873*. Chicago, IL: The Hewitt Bros., 1960.

⁸ McCloskey, John. “The 1873 – No Arrows – Open 3 – Half Dollar” *Gobrecht Journal* November 1979: 3-6.

⁹ McCloskey, John. “Another 1873 No Arrows Open 3 Half Discovered” *Gobrecht Journal* July 1980: 17.

McCloskey, John. “Tenth 1873 No Arrows Open 3 Half Discovered” *Gobrecht Journal* November 1980: 30.

Images of the exact same unique 1873 No Arrows Open 3 WB-7 Half Dollar
Left in an NGC Proof-61 holder and Right in a PCGS MS63 holder



1873 No Arrows Open 3 Half Dollar
2nd obverse
WB-7
NGC Proof-61, #212782-001
(Photo courtesy of Stack's Bowers)



1873 No Arrows Open 3 Half Dollar
2nd obverse
WB-7
PCGS MS63, #24464544
(Photo courtesy of PCGS)

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1873 No Arrows WB-6, Open 3, Circulation Strike

Obverse 5



- Date right (photo)



- Large lumps on Liberty's chest (photo)



- Large lumps across Liberty's right knee (photo)

Reverse D

- No usable die diagnostics seen
- Clash in shield's lower right

This is the only use of this obverse die and second use of this reverse die.

Date grid: R2.5, .022"	144 reeds	Typical diameter = 1.206"	Rarity - 5
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: XF45		Coin from the Randy Wiley Collection	
Cross reference: WB-101.			Version ISA.CS

1873 No Arrows
WB-6, Open 3, Circulation Strike



Obverse 5



Reverse D

1873 No Arrows WB-7, Open 3, Proof Strike

Obverse 6



- Date centered (photo) but more to the left than Obverse 6 (compare date position and dentil position on the left edge of the base of the 1)



- Large lump on Liberty's neck (photo)



- Lump on the rock near Liberty's index finger (photo)

Reverse E

- No usable die diagnostics seen

This is the only use of this obverse die and only use of this reverse die.

Date grid: R1, .020"	Unknown reeds	Typical diameter = Unknown"	Rarity – 8? See text
Drapery die state: Full	Foot support: Full	Dentils: Obverse - Full; Reverse - Full	
Grade of coin depicted: NGC Proof-61		Coin from the Stack's Bowers 2011 Auction	
Cross reference: WB-101.			Version ISA.CS

**1873 No Arrows
WB-7, Open 3, Proof Strike**



Obverse 6

(Images courtesy of Stack's Bowers)



Reverse E

Appendix A: Resources

This appendix is not all inclusive of references used for this Register. Rather, it is meant to provide the Liberty Seated half dollar collector with a list of useful references to be used while collecting this series.

Beistle, Martin Luther. A Register of Half Dollar Die Varieties and Sub-Varieties. Shippensburg, PA: The Beistle Company, 1929.

Boosel, Harry X. 1873-1873. Chicago, IL: The Hewitt Bros., 1960.

Breen, Walter. Walter Breen's Complete Encyclopedia of US and Colonial Coins. F.C.I Press, Inc. and Doubleday, 1988.

Breen Walter. Walter Breen's Encyclopedia of United States and Colonial Proof Coins. New York: F.C.I. Press, Inc., 1977.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume I, San Francisco Branch Mint. Gettysburg, PA: Self-published, 2009.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume II, Carson City Branch Mint. Gettysburg, PA: Self-published, 2010.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume III, New Orleans Branch Mint 1840-O to 1853-O NA. Gettysburg, PA: Self-published, 2011.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume IV, New Orleans Branch Mint 1853-O WA to 1861-O. Gettysburg, PA: Self-published, 2013.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume V, Philadelphia Mint 1839 to 1852. Gettysburg, PA: Self-published, 2016.

Bugert, Bill. A Register of Liberty Seated Half Dollar Varieties, Volume VI, Philadelphia Mint 1856 to 1873 No Arrows. Gettysburg, PA: Self-published, 2022.

Bugert, Bill. A Register of 1878-S Liberty Seated Half Dollars. Gettysburg, PA: Self-published, 2020.

Bugert, Bill. Liberty Seated Half Dollar Die Marriage Diagrams, Volume I: The Branch Mints. Gettysburg, PA: Self-published, 2014.

Carothers, Neil. Fractional Money. New York: John Wiley & Sons, 1930.

Cooper, Dennis R. The Art and Craft of Coinmaking - A History of Minting Technology. London: Spink & Son, 1988.

The Gobrecht Journal Collective Volume I, First Edition, LSCC, 1980.

The Gobrecht Journal Collective Volume II, First Edition, LSCC, 1985.

The Gobrecht Journal Collective Volume III, First Edition, LSCC, 1990.

The Gobrecht Journal Collective Volume IV, First Edition, LSCC, 1996.

The Gobrecht Journal Collective Volume V, First Edition, LSCC, 2009.

The Gobrecht Journal individual unbound issues from 1974 to the present.

National Archives notes researched and compiled by Bill Bugert and Randy Wiley.

Wiley, Randy and Bill Bugert. The Complete Guide To Liberty Seated Half Dollars. Virginia Beach, VA: DLRC Press, 1993.

Appendix B: List of Contributors

Randy Wiley
Dick Osburn
Dennis Fortier
John Murison
Jim Macor

Appendix C: Checklist of Half Dollar Die Marriages 1856 – 1873 NA

<u>√</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1856	WB-1	3	Spiked 1
☐	1856	WB-2	3	
☐	1856	WB-3	5	
☐	1856	WB-4	6	LDS Sawtooth Cuds
☐	1856	WB-5	3	
☐	1856	WB-6	4	Repunched 1
☐	1856	WB-7	8?	Dramatically Repunched 6
☐	1856	WB-8	4	Very Low Date
☐	1856	WB-9	4	56 Repunched North
☐	1857	WB-1	3	7 in Rock Support
☐	1857	WB-2	3	7 in Rock Support
☐	1857	WB-3	3	57 in Rock Support
☐	1857	WB-4	3	1857 in Rock Support
☐	1857	WB-5	3	
☐	1857	WB-6	3	
☐	1857	WB-7	4	
☐	1857	WB-8	3	Repunched 1, 8 in Dentils
☐	1857	WB-9	4	
☐	1857	WB-10	3	
☐	1857	WB-11	3	
☐	1857	WB-12	3	1 Repunched North
☐	1857	WB-13	4	1 Repunched North
☐	1857	WB-14	3	
☐	1857	WB-15	3	Repunched 1, 8 in Dentils
☐	1857	WB-16	3	
☐	1858	WB-1	3	Doubled Die Obverse, Repunched 1
☐	1858	WB-2	3	Repunched 2 nd 8
☐	1858	WB-3	3	Date Repunched North
☐	1858	WB-4	3	
☐	1858	WB-5	3	
☐	1858	WB-6	3	
☐	1858	WB-7	3	Errant 8 “Center” in Rock Support
☐	1858	WB-8	4	
☐	1858	WB-9	3	Doubled Die Obverse
☐	1858	WB-10	4	
☐	1858	WB-11	3	
☐	1858	WB-12	3	Errant 1 from Rock Support, Repunched 2 nd 8
☐	1858	WB-13	3	Catfish Foot
☐	1858	WB-14	4	185 Repunched North
☐	1858	WB-15	4	

<u>✓</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1858	WB-16	3	185 Repunched North
☐	1858	WB-17	3	Date Repunched over Inverted 1
☐	1858	WB-18	4	Errant 8 from Rock Support
☐	1858	WB-19	4	Errant 8 from Rock Support
☐	1858	WB-20	3	18 Repunched North
☐	1858	WB-21	3	18 Repunched North, 2 nd 8 Repunched South
☐	1858	WB-22	4	85 in Dentils
☐	1858	WB-23	3	Date Left and Low
☐	1858	WB-24	3	
☐	1858	WB-25	3	
☐	1858	WB-26	4	
☐	1858	WB-27	3	
☐	1858	WB-28	4	
☐	1858	WB-29	4	
☐	1858	WB-30	5	18 in Shield and Rock Support
☐	1858	WB-31	3	Lance in Eagle
☐	1858	WB-32	4	
☐	1858	WB-33	4	
☐	1858	WB-34	5	
☐	1858	WB-35	4	
☐	1858	WB-36	4	
☐	1858	WB-37	4	Blundered 1
☐	1858	WB-38	5	Crumbling Reverse Die
☐	1858	WB-39	3	
☐	1858	WB-40	5	8 in Rock Support
☐	1858	WB-41	5	Doubled Die Reverse
☐	1858	WB-42	5	Doubled Die Reverse
☐	1858	WB-43	5	Doubled Die Reverse
☐	1858	WB-44	3	Type 2 Reverse
☐	1858	WB-45	3	Type 2 Reverse
☐	1858	WB-46	3	Type 2 Reverse
☐	1858	WB-47	4	Type 2 Reverse
☐	1859	WB-1	3	
☐	1859	WB-2	3	
☐	1859	WB-3	3	Type 2 Reverse
☐	1859	WB-4	3	Deteriorating Doubled Die Reverse
☐	1859	WB-5	3	Crumbling Reverse Die
☐	1859	WB-6	3	Type 2 Reverse
☐	1859	WB-7	3	
☐	1859	WB-8	3	Type 2 Reverse
☐	1859	WB-9	3	
☐	1859	WB-10	3	
☐	1859	WB-11	3	

<u>√</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1860	WB-1	3	
☐	1860	WB-2	4	Type 1 Reverse
☐	1860	WB-3	3	Type 1 Reverse
☐	1860	WB-4	4	
☐	1860	WB-5	3	
☐	1860	WB-6	3	
☐	1860	WB-7	4	
☐	1860	WB-8	4	
☐	1860	WB-9	4	
☐	1861	WB-1	4	
☐	1861	WB-2	4	
☐	1861	WB-3	3	
☐	1861	WB-4	4	
☐	1861	WB-5	3	
☐	1861	WB-6	4	
☐	1861	WB-7	3	
☐	1861	WB-8	3	
☐	1861	WB-9	3	
☐	1861	WB-10	3	
☐	1861	WB-11	3	Repunched 1
☐	1861	WB-12	3	
☐	1861	WB-13	4	Doubled Die Reverse
☐	1861	WB-14	3	
☐	1861	WB-15	3	
☐	1861	WB-16	3	Doubled Die Reverse
☐	1861	WB-17	3	
☐	1861	WB-18	3	
☐	1861	WB-19	3	
☐	1861	WB-20	3	
☐	1861	WB-21	3	
☐	1861	WB-22	3	
☐	1861	WB-23	3	
☐	1861	WB-24	3	
☐	1862	WB-1	3	
☐	1862	WB-2	3	
☐	1862	WB-3	3	
☐	1862	WB-4	4	
☐	1862	WB-5	4	
☐	1863	WB-1	4	
☐	1863	WB-2	4	
☐	1863	WB-3	3	
☐	1863	WB-4	4	
☐	1863	WB-5	4	
☐	1863	WB-6	4	

<u>✓</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1863	WB-7	4	
☐	1863	WB-8	3	
☐	1863	WB-9	4	
☐	1864	WB-1	3	Repunched 1 4
☐	1864	WB-2	3	Very Low Date
☐	1864	WB-3	3	Doubled Die Obverse
☐	1864	WB-4	3	Doubled Die Obverse
☐	1864	WB-5	4	Doubled Die Obverse
☐	1864	WB-6	3	
☐	1864	WB-7	4	
☐	1864	WB-8	4	
☐	1864	WB-9	4	
☐	1865	WB-1	4	Doubled Date
☐	1865	WB-2	4	
☐	1865	WB-3	4	
☐	1865	WB-4	3	
☐	1865	WB-5	4	
☐	1865	WB-6	3	Repunched 1 5
☐	1865	WB-7	4	86 in Dentils
☐	1865	WB-8	5 / 3	Repunched 8
☐	1866	WB-1	3	6 in Dentils
☐	1866	WB-2	3	8 in Dentils
☐	1866	WB-3	4	Doubled Die Obverse 1
☐	1866	WB-4	4	Doubled Die Obverse 2
☐	1866	WB-5	4	Doubled Die Obverse 3
☐	1866	WB-6	4	Doubled Die Obverse 3
☐	1866	WB-7	4	1 from Hand
☐	1866	WB-8	3 / 4	
☐	1867	WB-1	3	Haywire Die Scratches
☐	1867	WB-2	4	6 in Dentils
☐	1867	WB-3	3	
☐	1867	WB-4	3	Repunched 67
☐	1867	WB-5	4	
☐	1867	WB-6	4	
☐	1867	WB-7	3	
☐	1867	WB-8	3	
☐	1867	WB-9	3	
☐	1868	WB-1	3	High Date
☐	1868	WB-2	3	
☐	1868	WB-3	3	
☐	1868	WB-4	3	Repunched Date
☐	1868	WB-5	3	Low Date

<u>√</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1868	WB-6	4	High date
☐	1869	WB-1	3	
☐	1869	WB-2	3	
☐	1869	WB-3	3	Repunched 18
☐	1869	WB-4	3	
☐	1869	WB-5	3	
☐	1869	WB-6	3	
☐	1869	WB-7	3	
☐	1869	WB-8	3	
☐	1869	WB-9	4	
☐	1870	WB-1	3	
☐	1870	WB-2	3	
☐	1870	WB-3	3	Repunched 1
☐	1870	WB-4	3	
☐	1870	WB-5	3	
☐	1870	WB-6	3	
☐	1870	WB-7	3	
☐	1870	WB-8	3	
☐	1870	WB-9	3	
☐	1871	WB-1	3	1s in Rock Support, Repunched 2 nd 1
☐	1871	WB-2	3	Crumbling Reverse Die
☐	1871	WB-3	3	Repunched 1 st 1
☐	1871	WB-4	3	
☐	1871	WB-5	3	
☐	1871	WB-6	3	Doubled Die Reverse
☐	1871	WB-7	3	Doubled Die Reverse
☐	1871	WB-8	3	
☐	1871	WB-9	4	
☐	1871	WB-10	3	
☐	1871	WB-11	4	Repunched 1 st 1
☐	1871	WB-12	4	Repunched 1 st 1
☐	1872	WB-1	3	
☐	1872	WB-2	3	Errant Digits in Rock Support
☐	1872	WB-3	4	Errant Digits in Rock Support
☐	1872	WB-4	3	
☐	1872	WB-5	3	
☐	1872	WB-6	3	
☐	1872	WB-7	3	
☐	1872	WB-8	3	
☐	1872	WB-9	3	
☐	1872	WB-10	3	

<u>√</u>	<u>Date</u>	<u>WB-#</u>	<u>Rarity</u>	<u>Variety</u>
☐	1873 NA	WB-1	3	Closed 3, Repunched 73
☐	1873 NA	WB-2	3	Closed 3, 187 in Dents
☐	1873 NA	WB-3	3	Closed 3, 187 in Dents
☐	1873 NA	WB-4	3	Closed 3, Tripled 3
☐	1873 NA	WB-5	3	Closed 3
☐	1873 NA	WB-6	5	Open 3, Circulation Strike
☐	1873 NA	WB-7	8?	Open 3, Proof Strike

Appendix D: Bill Bugert's Numismatic Biography

Bill Bugert is a recognized authority on Liberty Seated half dollars and a lifelong collector who has collected and researched Liberty Seated half dollars since the early-1970s. He and Randy Wiley authored *The Complete Guide to Liberty Seated Half Dollars* (1993) and Bill wrote a series of books documenting all the die marriages for the series, *A Register of Liberty Seated Half Dollar Varieties*, the first six of which have been published.

Volume I - San Francisco Branch Mint

Volume II - Carson City Branch Mint

Volume III - New Orleans Branch Mint (1840-O to 1853-O NA)

Volume IV New Orleans Branch Mint (1853-O WA to 1861-O)

Volume V - Philadelphia Mint (1839-1852)

Volume VI - Philadelphia Mint (1856-1873 NA).

Bill's other books on Liberty seated half dollars include:

A Register of 1878-S Liberty Seated Half Dollars

Liberty Seated Half Dollar Die Marriage Diagrams, Volume I: The Branch Mint

He has authored numerous numismatic research articles and served as a speaker at many local and national numismatic events. Bill presented at the American Numismatic Society's "Coinage of the Americas" Conference in 1986.

He won the following major awards:

- 1992 LSCC's James B. Pryor Numismatic Research Award
- 2008 LSCC's 2008 Kamal M. Ahwash Award
- 2008 the John Reich Collectors Society's 2008 award
- 2008 the Numismatic Bibliomania Society's 2008 Jack Collin's award
- 2011 and 2014 Extraordinary Merit awards from the Numismatic Literary Guild
- 2017 Inducted into the Liberty Seated Collectors Club's Hall of Fame
- 2020 LSCC's John W. McCloskey's Research Award
- 2021 LSCC President's Award for Publications Editor.

Bill is Past-Vice President of the Liberty Seated Collectors Club, founded and published (2005-2019) the LSCC's monthly electronic newsletter (*The E-Gobrecht*), and edited and published (2014-2021) the LSCC's printed publication (*The Gobrecht Journal*). He is a life member of ANA and a member of LSCC, NLG, JRCS, BCCS, and the Rittenhouse Society.

Professional Background

1973 BS in Physics, John Carroll University.

1992 MS in Electrical and Computer Engineering, George Mason University.

23 years service in the U.S. Army Signal Corps with assignments including 82nd Airborne Division, 1st Infantry Division, and Intelligence Support Activity.

10 years with TASC, Inc (a Northrup Grumman Company) as a Program Manager for Information Systems Security and Department Manager for Reconnaissance Satellite Systems Engineering.

2 Years self-employed as a consultant in satellite systems engineering.