

Flying Eagle and Indian Cent

1857 Clash with Liberty \$20.00

MDC-001

Cross Reference : S-7, FS1-004**Description :** *The obverse is clashed with an obverse die of a Liberty Head Twenty Dollar Gold Coin.*

The clashed remnants of Miss Liberty is seen on both sides of the eagle.

The front of Liberty's profile can be seen through and to the right of AMERICA. Liberty's nose is seen through the AM of AMERICA. Liberty's lips are seen to the left of the R of AMERICA. Liberty's chin is touching C of AMERICA.

The front of Liberty's neck is seen from the talons to the rim at 5 o'clock.

Remnants of the back of Miss Liberty's head are seen through UN, and from the beak to the rim.

**Diagnostics :**

Obverse - Type of 1857 Obverse.

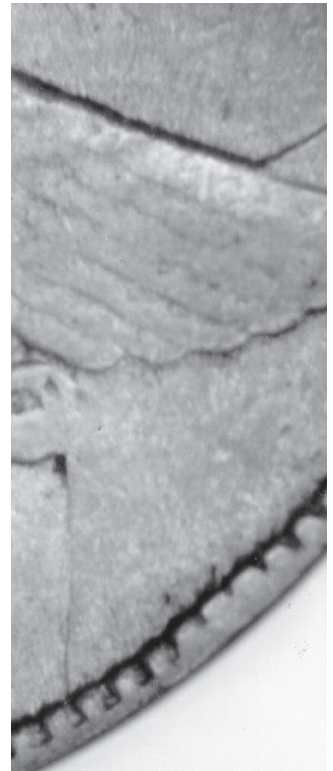
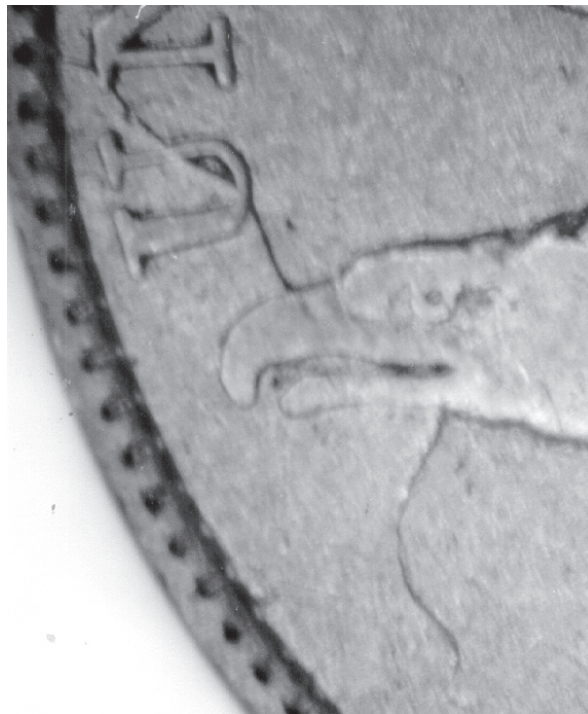
Reverse - None noted.

| | | | | | | | | |
|----------------|-----|-----|-----|-----|-------|-------|------|------|
| | G | VG | F | VF | XF | AU | MS63 | MS65 |
| Value : | 150 | 175 | 300 | 500 | 1,500 | 2,500 | - | - |

Comments : Out of the three 1857 Flying Eagle cents clashed with a different denomination, this is easily the rarest and most sought after. No uncirculated specimens are known of this variety to date. There are no known 1857 Twenty Dollar Gold obverses which exhibit clashing of a Flying Eagle cent obverse. This variety was most likely created when the Flying Eagle cent working dies were replacing a pair of Twenty Dollar Gold working dies in the coining press. This would explain why there exists no Twenty Dollar Gold coins with this clash. Most likely the Flying Eagle cent obverse working die replaced the Twenty Dollar Gold reverse working die in the hammer position. If a collar was still in the coining press over the anvil working die, a Twenty Dollar Gold working die in the hammer position would not be able to strike the lower die. With such a size difference between the cent (19 mm diameter) and twenty dollar gold piece (34 mm diameter), it is highly probable that the Flying Eagle cent working die obverse fractured the Twenty Dollar Gold working die obverse from the central force focused in the middle of the Twenty Dollar working die. These die varieties were not identified as multi-denominational clashed dies until the 1970s.



1857 Flying Eagle Cent obverse clashed with Twenty Dollar Gold obverse continued



1857 Clash w/Liberty Seated Quarter MDC-002

Cross Reference : S-8, FS1-005

Description : *The reverse is clashed with a reverse of a Liberty Seated Quarter Dollar.*

The clashed remnants of the eagle and shield is seen on the inside of the wreath and through ONE CENT.

The outline of the eagle's neck and part of the head can be seen through and above the ONE.

The top of the left wing of the eagle is seen through and to the right of the NE of ONE.

The vertical lines from the shield is seen through CEN of CENT.

Clashed remnants of the bottom right wing are seen through the bottom of the T of CENT.



Diagnostics :

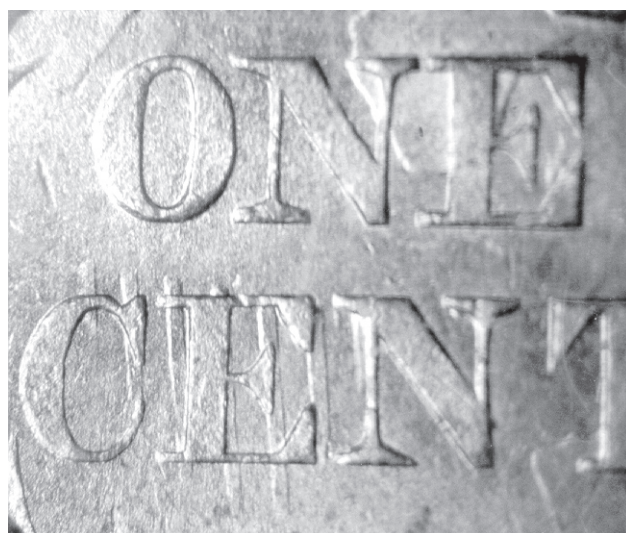
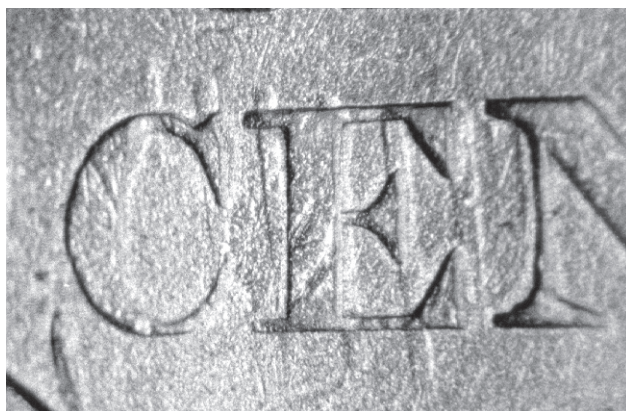
Obverse - Type of 1857 Obverse.

Reverse - None noted.

| | | | | | | | | |
|----------------|----|----|-----|-----|-----|-----|-------|-------|
| | G | VG | F | VF | XF | AU | MS63 | MS65 |
| Value : | 20 | 50 | 120 | 200 | 300 | 500 | 1,600 | 4,000 |

Comments : This variety was first discovered in 1977.

It is second in rarity for the 1857 Flying Eagle cent multi-denominational clashed dies. Several uncirculated specimens are known to exist. An 1857 Liberty Seated quarter exists that has the clashed remnants of the reverse of a Flying Eagle cent on the reverse. This is the only pair of multi-denominational clashed dies where both denominations were found with the clashing. The most likely scenario in the creation of these varieties is that the Liberty Seated quarter working dies were in the coining press. The high demand of the new cent caused a priority shift in production. The new cent working dies replaced the Liberty Seated quarter working dies. The cent reverse clashed the quarter reverse working dies when changing them. The quarter working dies were subsequently used again. If this is true, then there should exist a die state for the reverse of the quarter that does not have the clashing. For each of the six known multi-denominational clashed dies, the area of the field that was opposite of the design elements is at a lower level than the surrounding field. This means that the area where the fields on the two working dies clashed was compressed to a lower level under high pressure in the coining press. If an area is incused on the working die, it will be raised on the coin. This gives the illusion that the area of the field that was opposite the design elements was lowered on the coin.



1857 Clash w/Liberty Seated Half

MDC-003

Cross Reference : S-9, FS1-003

Description : *The obverse is clashed with an obverse of a Liberty Seated Half Dollar.*

The clashed remnants of Miss Liberty is seen on both sides of the eagle.

The shin of Miss Liberty can be seen from the wing through the beak to the denticles at 7 o'clock.

The upper left side of Miss Liberty is seen between the top of the wings and STATES. Liberty's left arm is seen from the top of the wing to the ST of STATES. The pole is seen below and through the A of STATES. The back of Liberty's neck and hair is seen below and through the TE of STATES.

The outside of Liberty's right arm holding the shield runs above the AM and through ERICA of AMERICA to the tail feathers.

Parts of the drapery is seen in the field above and below the tail feathers.



Diagnosics :

Obverse - Type of 1857 Obverse.

Reverse - None noted.

| | G | VG | F | VF | XF | AU | MS63 | MS65 |
|----------------|----|----|----|-----|-----|-----|-------|-------|
| Value : | 22 | 30 | 50 | 125 | 200 | 500 | 1,300 | 3,000 |

Comments : Out of the three 1857 Flying Eagle cent multi-denominational clashed dies, this is the most common. Several uncirculated specimens are known. No 1857 Liberty Seated half dollar has been verified with the clash marks of a Flying Eagle cent. There are only six multi-denomination clashes known for all United States series. Of the six, four were created on 1857 coinage. The primary question is whether these 1857 multi-denominational clashed dies are the result of an accident, faulty machinery, poor workmanship, coincidence, or purposeful act? Some have speculated that they were the result of the night watchman, Theodore Eckfeldt, but there is no evidence to support this theory. They were most likely the result of accident or inexperience during a year of high demand and high production and decreased quality control. For each of the six known multi-denominational clashed dies, the working dies were centered when they were clashed. This supports the conclusion that the clashing occurred in the coining press. Overlays courtesy of Lance Newman.



1857 Flying Eagle Cent obverse clashed with Liberty Seated Half Dollar obverse continued



1860

Cross Reference : None

Description :

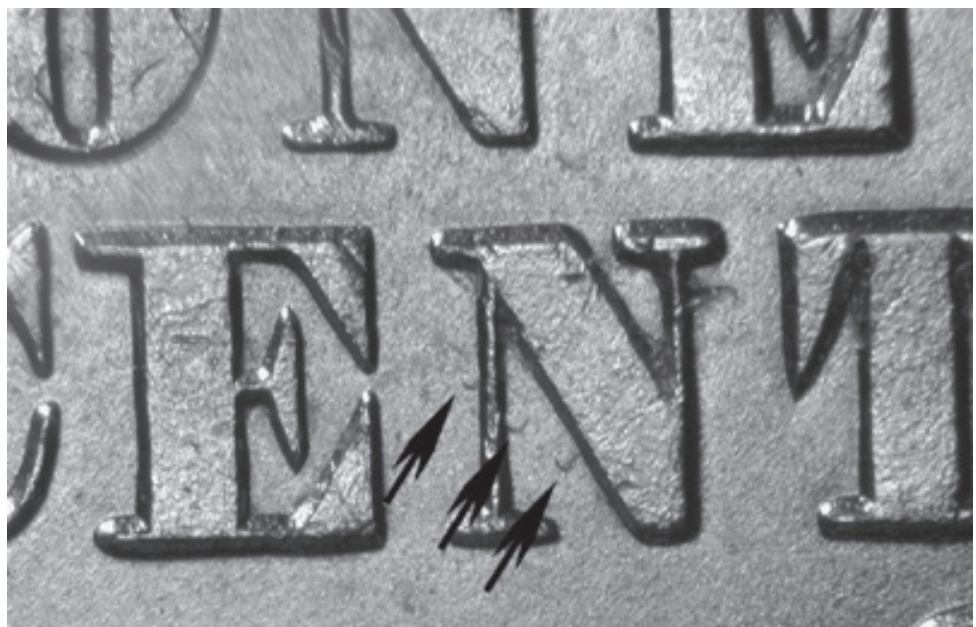
The tips of what is believed to be remnants of three top of spaces is seen on the lower left side of the N of CENT. With only three top of spaces seen and no rim, it cannot be absolutely concluded that these are the remnants of off-center clashing. The shape is the same as the shape of space between the denticles. The distance between the denticles is as expected.

Diagnostics :

Obverse – None noted.

Reverse – Nice die scratch to the left of the C of CENT from the wreath back to the wreath.

Comments : Photos courtesy of Rick Snow. If these are the remnants of the raised space between the denticles, this variety is a result of a dropped working die. There is no evidence of this variety being created in the coining press. There are no compressed lowered fields, clashed design elements, or any other evidence. The top of the spaces are raised as the dropped working die caused an indent into the lower working die. There is not enough physical evidence to absolutely conclude that this was the result of off-center clashing.



1880 Off-Center Clashed Die Reverse OCC-001

Cross Reference : S-1, DDO-001

Description : *Off-Center Clashed Die Reverse.*

Remnants of the top of the spaces between the denticles and IC of AMERICA of the obverse can be seen on the reverse from the rim at about 1 o'clock down through the shield, top right wreath, NE of ONE, and N of CENT. The top of two spaces are seen on top of the E of ONE. Remnants of the field outlining the denticles is seen on the inside of the spaces. Remnants of the rim edge is seen outside of the top of the spaces to the right.

Class IV, Offset Hub Doubling.

Doubling can be seen on LIBERTY, with very minor doubling visible on initial L, feathers, hair, eye, and nostrils.

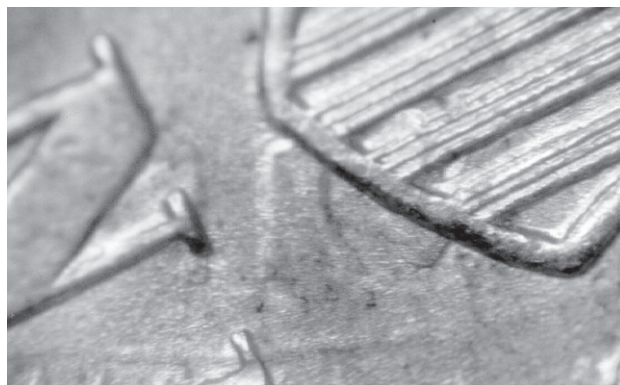
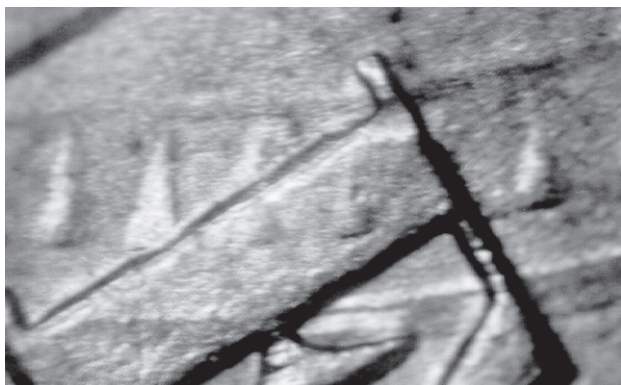
Diagnostics :

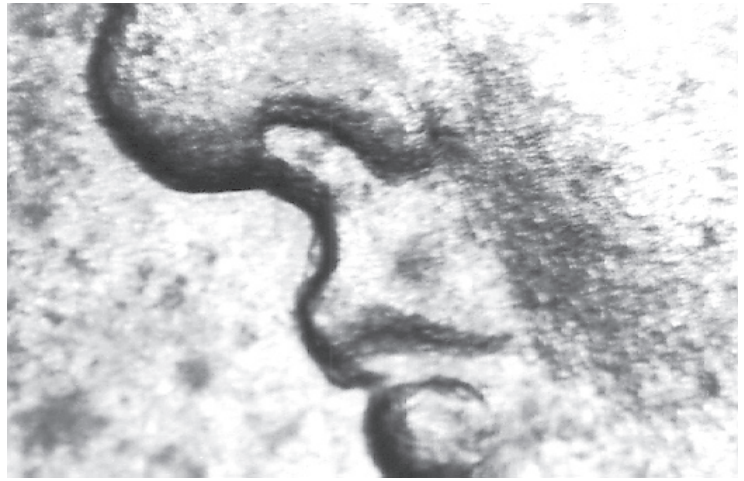
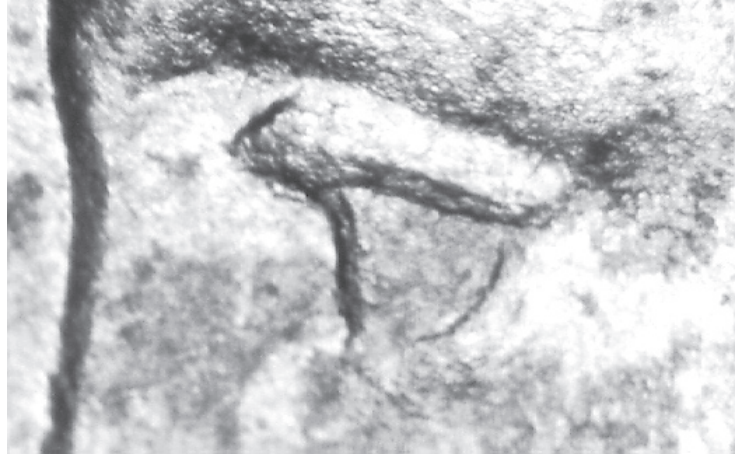
Obverse – None noted.

Reverse – Small die crack through the wreath from 8 to 9 o'clock.

| | | | | | | | |
|----------------|----|-----|-----|-----|------|-------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 80 | 150 | 250 | 300 | 700 | 1,200 | 3,000 |

Comments : This die variety is primarily sought for the off-center clashing on the reverse that is visible with the naked eye. This variety has always been found with the doubling on the obverse and the clashing on the reverse. The obverse does not show signs of the outline of the reverse design elements of the shield, wreath, of letters of NE of ONE, or N of CENTS. Therefore, it is more probable that this reverse die was clashed with a different obverse. Based upon the depth of the remnants, the clashing was caused under pressure, but as the obverse working die was horizontally offset towards 2 o'clock, the clashing could not have occurred in the coining press.





1889 Off-Center Clashed Reverse OCC-001

Cross Reference : None

Description : *Off-Center Clashed Die Reverse.*

The reverse shows the remnants of two separate off-center clashing.

The first off-center clashing shows remnants of the top of the spaces through the O of ONE of and E of CENTS. Remnants of the field outlining the denticles is seen on the inside to the right of the top of the spaces between the O and E. The rim edge is seen from the left side of the E of CENT.

The second off-center clashing is seen through the N of ONE and N of CENTS. Remnants of the top of the spaces is seen to the left of the E of ONE. The rim edge is seen from the bottom of the shield down through the top right of the N of ONE to the top right of the N of CENT.



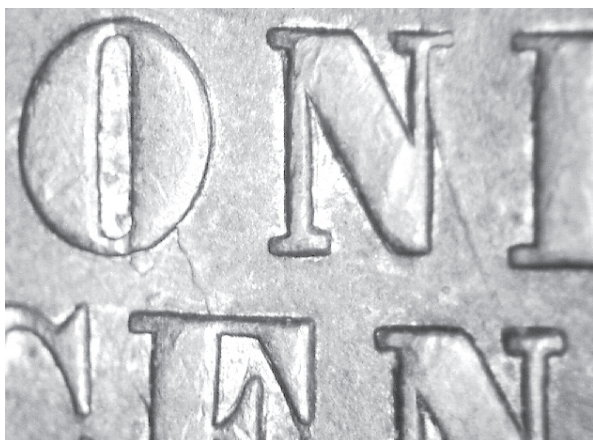
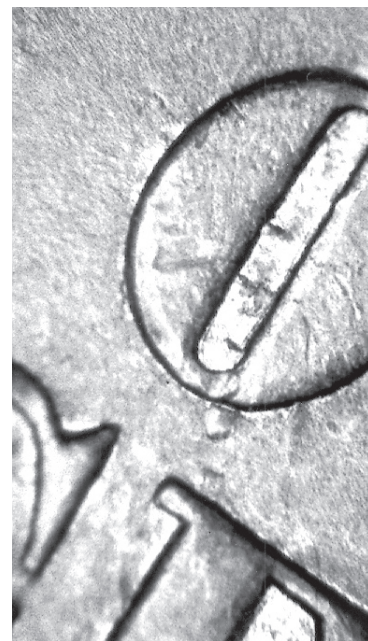
Diagnostics :

Obverse – None noted.

Reverse – None noted.

| | | | | | | | |
|----------------|----|----|----|-----|------|------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 40 | 75 | 90 | 120 | 250 | 500 | 3,400 |

Comments : As the depth of the clashing is very light and as the remnants of the clashing is near the center, this is mostly likely the result of a dropped working die. This could have happened when the working dies were being stored, or in the coining press with the reverse working die in the lower position and the upper working die accidentally being dropped when being inserted into the die holder. On the first off-center clashing to the left, the remnants of the top of the spaces are much stronger than the rim edge. This leads to the conclusion that the degree of tilt was less than angle between the top of the spaces and the rim edge on the working die. For the off-center clashing to the right, the remnants show equal depth.



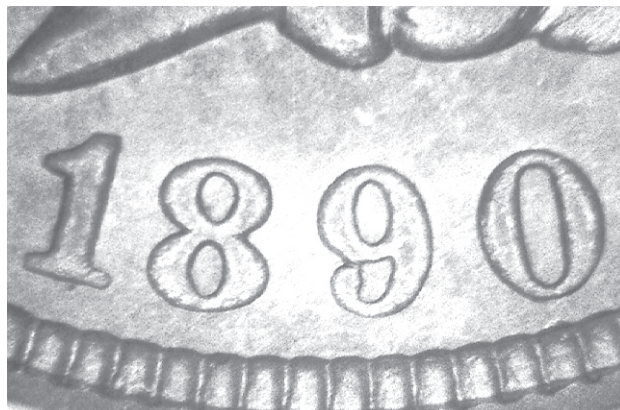
1890 Off-Center Clashed Reverse

OCC-001

Cross Reference : None

Description : *Off-Center Clashed Die Reverse*

Remnants of the spaces between the denticles can be seen from the top of the N of ONE to the middle of the E in CENT. Remnants of the field outlining the denticles seen on the inside to the left of the spaces. Remnants of the rim edge are seen on the outside of the top of the spaces.



Diagnostics :

Obverse – None noted.

Reverse – Die scratch to the left of the C of CENT from the wreath down through the field and back to the wreath.

| | | | | | | | |
|----------------|----|----|----|-----|------|------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 30 | 50 | 75 | 100 | 230 | 400 | 1,900 |

Comments : This is mostly likely the result of a dropped working die. There are only approximately a half dozen off-center clashed dies in all U.S. coin series. Of course, not as dramatic or sought after as the multi-denomination clashed dies, but still pretty cool, especially given their rarity.



Two Cent

1863 Off-Design Clash

ODC-001

Cross Reference : Judd 312

Description : *Reverse Clashed with Washington Obverse*

The outline of the upside down head of George Washington is seen in the field to the left and right of 2 CENTS. The outline of the letters OUR is seen below the ribbon. The chin and mouth are to the right of the S of CENTS. The back of the hair is to the left of the C of CENTS.

Diagnostics :

Obverse – None noted.

Reverse – None noted.

Comments : In 1863, two obverse designs were submitted for consideration for the Two cent series. The first had a bust portrait of George Washington (Judd 305). The second had the shield that was adopted (Judd 312). Both used the same reverse with a curved CENTS. The Washington obverse working die struck the reverse working die with no planchet between, leaving the outline of Washington's head on the reverse. The reverse was subsequently used with the shield obverse, creating a unique variety. Photos and overlays courtesy of Alan Meghrig. Considered extremely rare.





Cross Reference : None

Description : *Off-Center Clashed Die*

Obverse – Strong clash marks can be seen in the field above both sides of the banner. The top three leaves from the left side of the wreath are seen above the right side of the banner above TRUST. The top two leaves from the right side of the wreath are seen above the left side of the banner. The bottom of the O of OF is seen below the denticles above the O of GOD. The lower serif and curve of the second S of STATES is seen below the denticles above E of WE.

Reverse – Strong clash marks. The remnants of the top of the spaces can be seen through the letters TATES OF. Remnants of the field outlining the denticles is seen on the inside below.

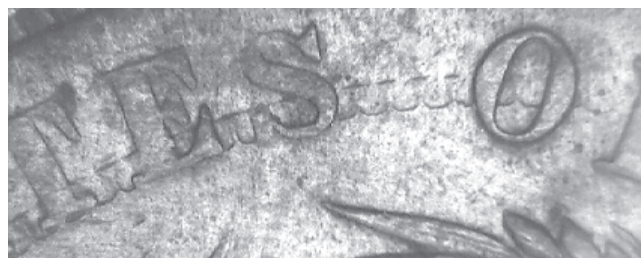
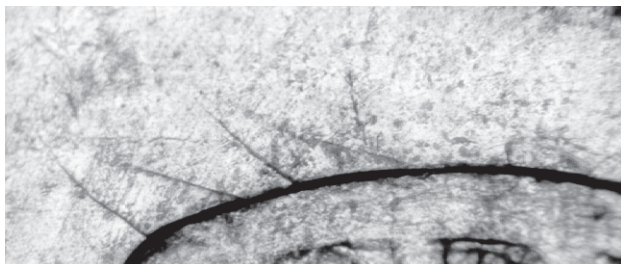
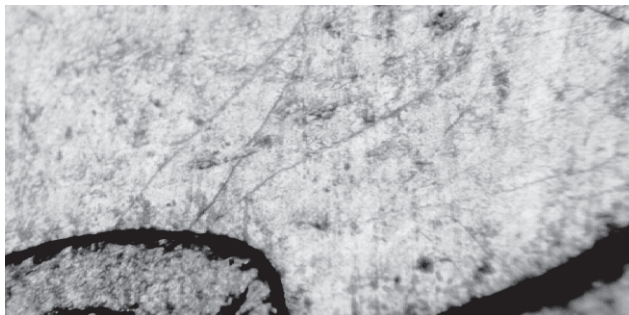
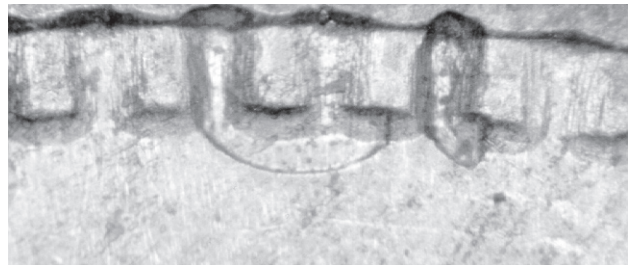
Diagnostics :

Obverse – None noted.

Reverse – Complete D.

| | | | | | | | |
|----------------|----|----|----|-----|------|------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 35 | 60 | 90 | 140 | 300 | 600 | 2,200 |

Comments : This is the only known off-center clashed obverse/reverse pair known. It can be clearly shown to have occurred in the coining press with the obverse die in the hammer position, tilted slightly, and striking the reverse die. The clashing is only seen on the upper side of the coin. This variety has proven to be quite illusive, especially in higher grades.



1864 Clash with Indian Cent Obverse MDC-001

Cross Reference : None

Description : *Reverse Clashed with Indian Obverse*

The profile of the face of the Indian is seen in the field to the right and below 2 CENTS. The forehead is seen to the right at the top of the 2. The front of the nose is seen above the right side of the S of CENTS. The chin is seen going through the bottom of the TS of CENTS. The neck extends from the T down to the ribbon.

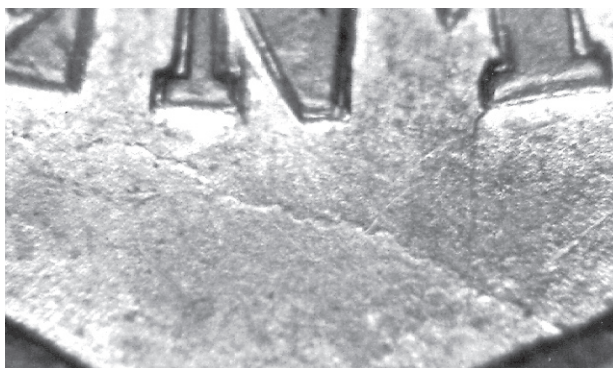


Diagnostics :

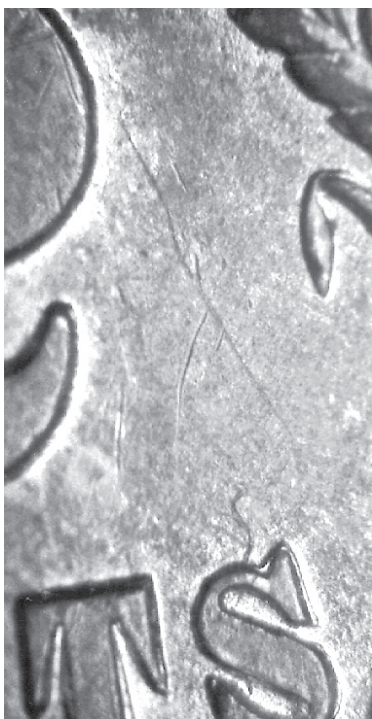
Obverse – None noted.

Reverse – Die crack from the E of CENTS down through the neck clash line to the wreath.

| | | | | | | | |
|----------------|----|----|-----|-----|------|-------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 45 | 70 | 100 | 170 | 400 | 1,000 | 2,900 |



Comments : This was discovered a few years ago and was the last of the 6 known multi-denominational clashed dies to be identified. Several uncirculated specimens are known. No 1864 Indian cents have been found with the clash marks of a Two cent reverse design. The clashing is very light, especially when you compare against the 1857 varieties. This combined with the fact that the Two cent series is less popular and searched than the Flying Eagle and Indian cents is probably why it was not found sooner.



1868 Off-Center Clash Reverse

OCC-001

Cross Reference : None

Description : *Off-Center Clashed Die*

Two different off-center clashes are seen on the opposite sides of the reverse.

Remnants of the top of four spaces is through the E of STATES. Remnants of the field outlining the denticles is seen on the inside near the top of the E. Remnants of the rim edge is seen between the E and S of STATES. The clashing is concave inward towards 3 o'clock on the working die. The obverse working die was horizontally offset towards 2 o'clock.

The second off-center clashing is seen at the bottom from the rim at 6:30 up to the left stem and is concave to the right. Remnants of the top of 3 spaces is seen with the field outlining the denticles seen on the inside. Remnants of the rim edge is seen on the outside to the left. The clashing is concave inward towards 9 o'clock on the working die. The obverse working die was horizontally offset towards 5 o'clock.



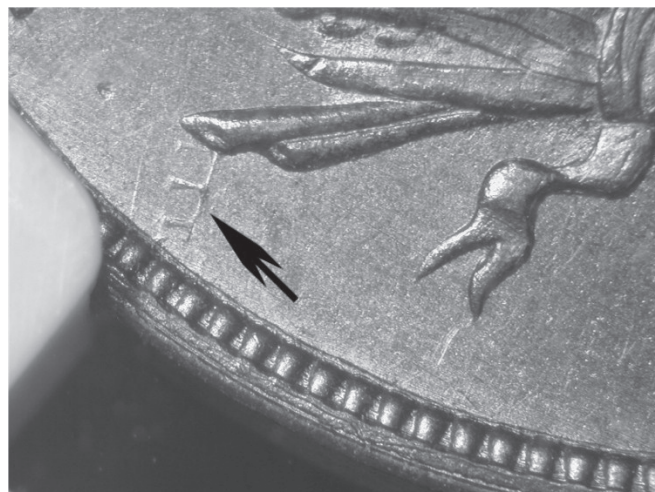
Diagnostics :

Obverse – None noted.

Reverse – Complete D.

| | | | | | | | |
|----------------|----|----|-----|-----|------|------|-------|
| | VF | XF | AU | 60 | 63RB | 64RB | 65RD |
| Value : | 40 | 70 | 100 | 150 | 375 | 750 | 5,800 |

Comments : Photos courtesy of Rick Snow. The first conclusion is that these two off-center clashes were from different clashing. They are concave in different directions. As the remnants are very light in strike and near the edge of the working die, this must be the result of a dropped working die. Price for MS65RD primarily reflects the price for that grade.



Shield Nickel

1867

Cross Reference : None

Description :

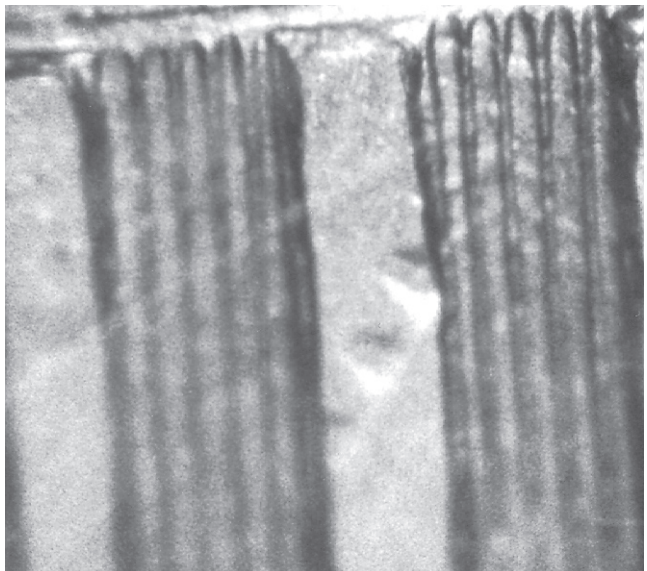
What appears to be the top of several spaces between the denticles is seen in the field between two rows of vertical lines in the shield. With only the tops of three spaces visible, it is difficult say with absolute certainty that these are the remnants of off-center clashing. The shape and contour of the raised metal is as expected.

Diagnostics :

Obverse – None noted.

Reverse – Nice die scratch to the left of the C of CENT from the wreath back to the wreath.

Comments : For the Shield nickel series there are many nice doubled dies and repunched dates that are sought after by the die variety enthusiast that enjoy this series. These marks might not be visible in low grades. They are raised and very light. There is not enough physical evidence to absolutely conclude that these were the result of off-center clashing.



1870 Clash with Indian Cent Obverse MDC-001

Cross Reference : Fletcher F-15, MPD-001

Description : *Clashed obverse with an Indian cent obverse.*

The upside down profile of an Indian used for the Indian cent is seen on obverse.

The remnants of the nose and forehead extends from the ball down through the shield, ending with a small knob directly to left of the second group of vertical lines. From here, a line extends up and to the right to the third group of vertical lines in the shield; this is most likely from right above the banner of LIBERTY.

The clashed outline of the tops of three feathers are seen on the bottom inside right of the shield.

Two partial clashed outlines of two feathers are seen extending from the right side of the shield to the outer cluster of leaves.

Misplaced Date:

The top of a 1 is seen above the denticles to the right of the 1.

Triple punched date: 1870/1/1

Triple punched 1 seen to the left of the middle, and above the top left of the serif of the 1.

Die Markers:

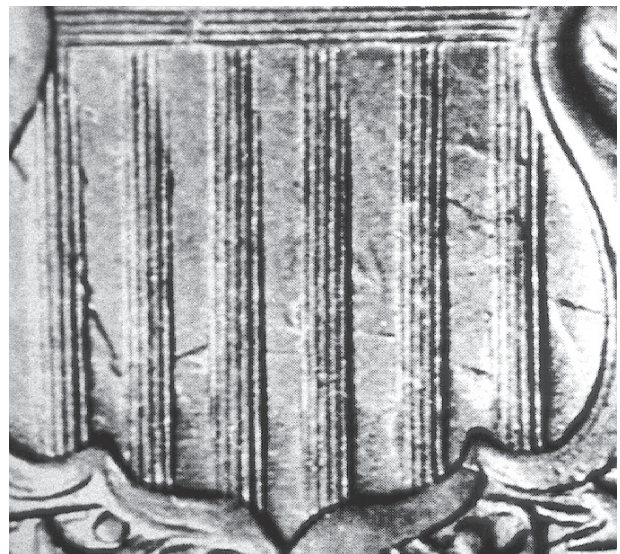
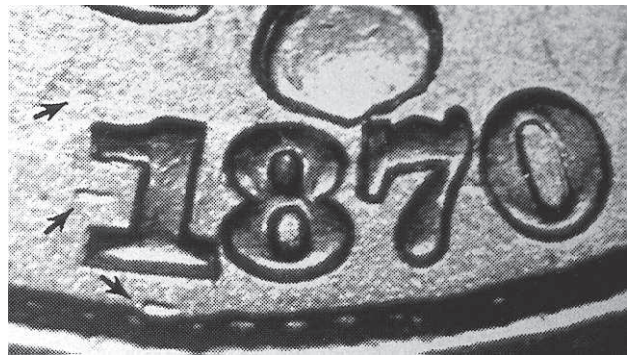
Obverse - Die crack from the rim up through the 1870.

Die crack from the rim through the right arrow head, through the bottom of the shield to the left arrow head. Die crack from the field on the left side below the bottom leaves up through the left side leaves, through the cross, then down through the leaves on the right side to the rim.

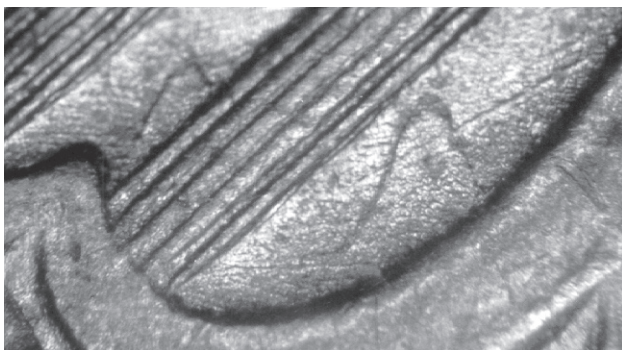
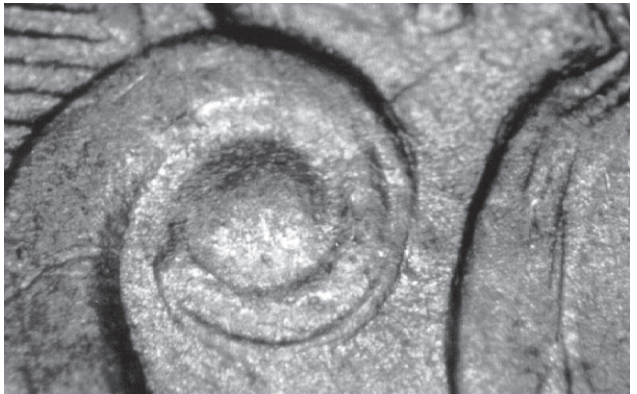
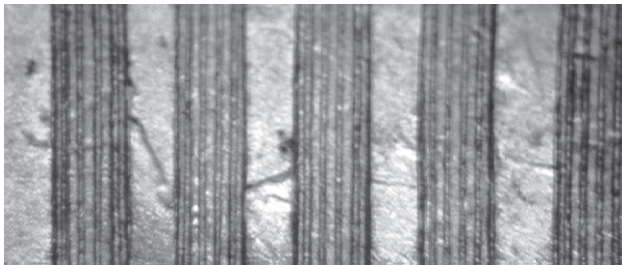
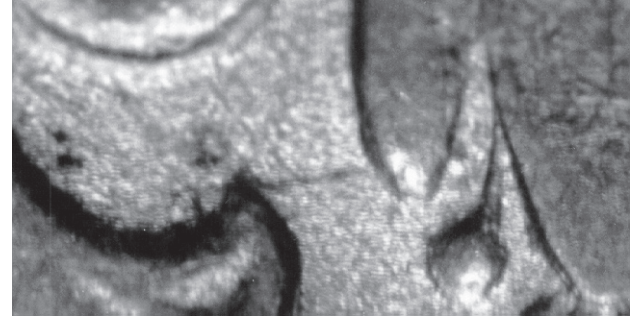
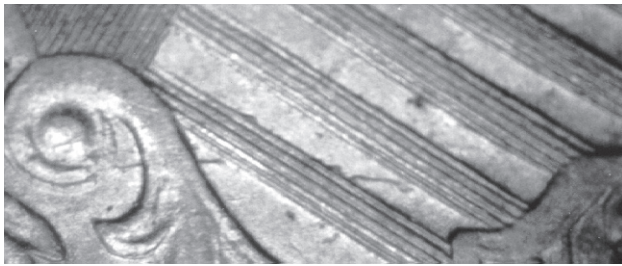
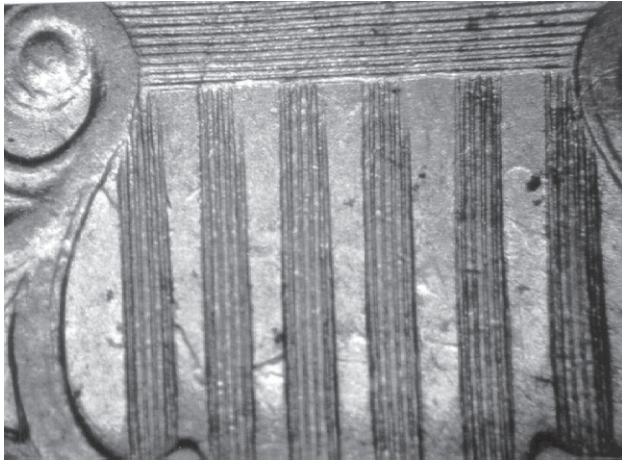
Reverse - None noted.

| | | | | | | | | |
|----------------|----|-----|-----|-----|-----|-------|-------|------|
| | G | VG | F | VF | XF | AU | MS63 | MS65 |
| Value : | 80 | 150 | 225 | 300 | 500 | 1,000 | 2,500 | - |

Comments : What more could a variety enthusiast hope to find; repunched date, misplaced date, and multi-denominational clashing. The outline of the front of the Indian's face and all of the feathers can be seen with the naked eye. So far, only one BU specimen and a dozen circulated specimens are known. Imagine finding an 1870 Indian cent with the remnants of the lower left of the shield in the field in front of the nose and forehead. Overlay courtesy of Lance Newman.



1870 Shield nickel obverse clashed with Indian cent obverse continued



Liberty Seated Quarter

1857 Clash with Flying Eagle Cent MDC-001

Cross Reference : FS25-005, Briggs Rev. F

Description : *Reverse clashed with a Flying Eagle cent reverse*

The clashed remnants of the wreath and ONE CENT is seen on both sides of the head of the eagle, below the left wing and in the shield.

The top of the NE of CENT is seen between the left wing and neck.

The top of the wreath is seen on both sides and above the head of the eagle. The top right acorn from the wreath is seen between the beak and top of left shoulder. Parts of the right side of the wreath are seen to the left of the top of the left wing. The top left acorn from the wreath is seen touching the back side of the eagle's neck. The top left cone on the wreath seen above the eagle's head.

Remnants of the bottom of the T of CENT is seen below the left wing.

Parts of CE of CENTS are seen in the vertical lines of the shield.

Repunched Date - 1857/1

Repunched 1 south seen below the serif and base.

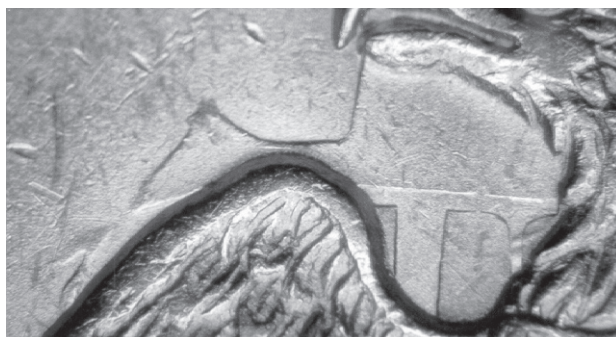
Diagnostics :

Obverse – None noted.

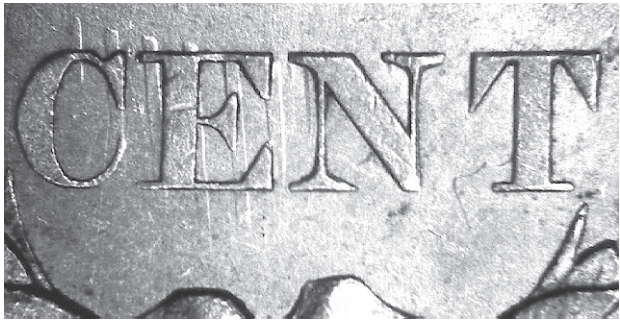
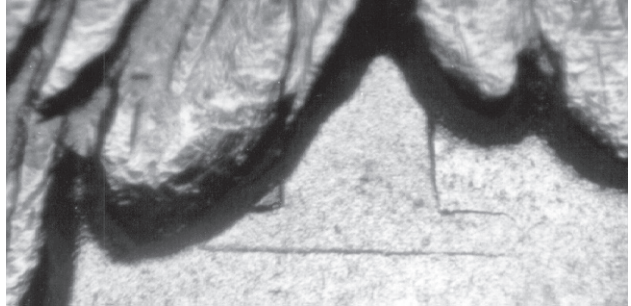
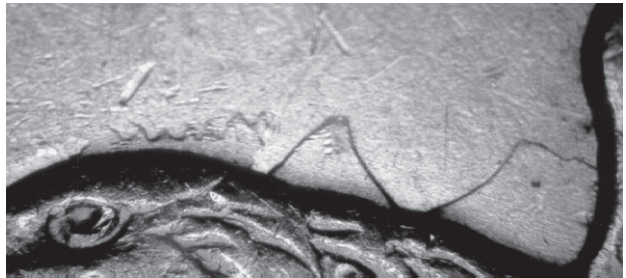
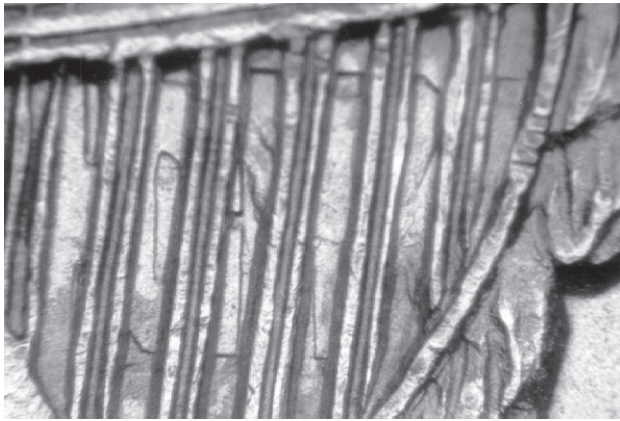
Reverse – None noted.

| | G | VG | F | VF | XF | AU | MS63 | MS65 |
|----------------|----|-----|-----|-----|-----|------|-------|------|
| Value : | 80 | 150 | 225 | 350 | 850 | 2000 | 5,000 | - |

Comments : First discovered in the late 1970s. This variety has proved to be very rare in uncirculated grades. It is one of the top die varieties sought after by Liberty Seated collectors. The clashing is visible with the naked eye. The 1857 Flying Eagle cent reverse clashed with the Liberty Seated quarter reverse, and 1857 Liberty Seated quarter reverse clashed with a Flying Eagle cent reverse is the only known pair of multi-denominational clashed dies with both series known to exist with the clashing.



1857 Liberty Seated Quarter reverse clashed with Flying Eagle cent reverse continued



Morgan Dollar

1878

VAM221A

Cross Reference : VAM221A**Description :** *Refuted Off-Center Clashed Die*

Two dots are seen in the field to the left of the bow between the tail feathers and wreath.

The dot on the right is in the shape of a W. The top is indented downwards. The shape is more towards a triangular than that of an isosceles triangle for the top of the space. The sides are much shorter than the 3mm sides of the length of the space. There is no outward curve of the space connecting to the field. The depth of strike is greatest in the middle rather than on the edge representing the end of the space.

The dot on the left is barely visible and it is very difficult to identify the shape. It is much smaller than the dot on the right.

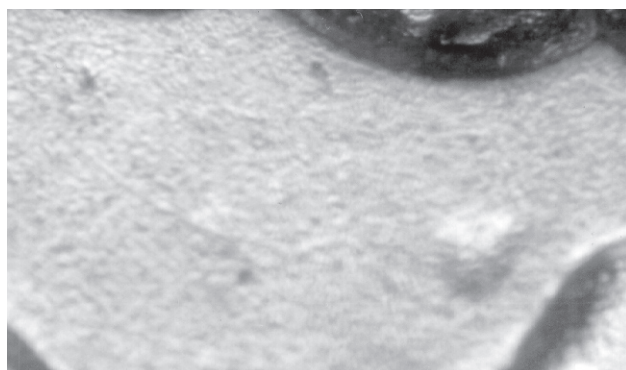
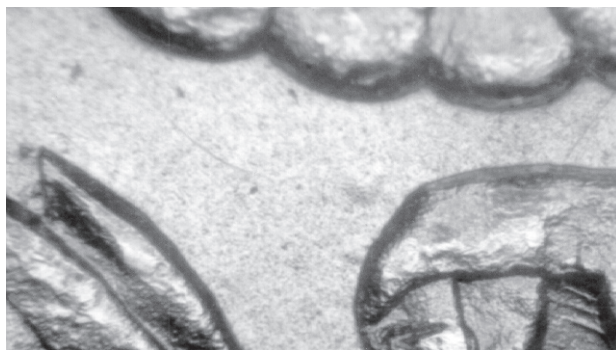
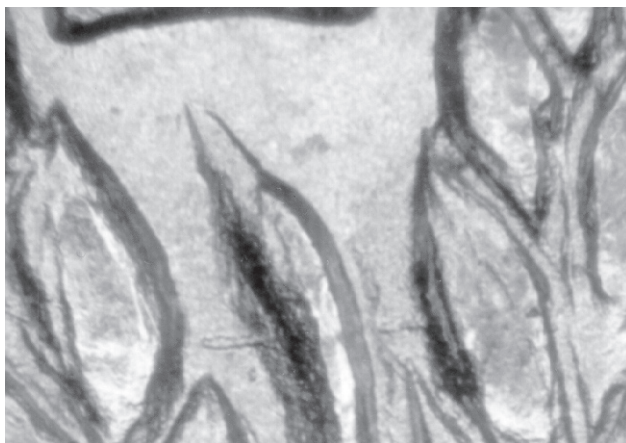
The physical evidence does not support this being classified as the remnants of denticles. Both dots are very light. They do not have the shape or contour of the spaces in between the denticles. They are not consistent in size or shape.

Diagnostics :

Obverse – Horizontal die scratch through wheat leaf below I in LIBERTY. Minor doubling seen above the top leaves.

Reverse – Die scratches in the middle of the ribbon loop.

Comments : All of the Morgan Dollar die varieties listed in this section have been called off-center denticle clashing. Raised metal can be caused by different events. For example, if you examine the area directly to the left of the ribbon loop, there is some raised metal in the field. Each die variety was evaluated for this book to determine if there was sufficient physical evidence to classify the die variety as an off-center clashed die.



Cross Reference : VAM225A**Description :** *Refuted Off-Center Clashed Die*

There are four dots between the tail feathers and the tops of the ribbon.

The first dot to the left is in the shape of a W. The top does not have a defined shape. The left and right sides are not of equal length or angle inward. The highest point is on the bottom left. This should be on the top representing the end of the space.

The second dot to the left has a short side on the left which is angled up to the left and a longer side to the right that is angled to the right. The top does not have a defined shape and appears like an S on its side. The highest point is to the left.

The third dot from the left is the general shape of a W. The lower center is non-existent. The sides are not of equal length or angle as they curve outward. The highest point is to the left. The top is undefined and very shallow.

The dot to the right is in the shape of a triangle without a top. The lower and upper parts do not have a defined shape. The left and right side have a different length and angle.

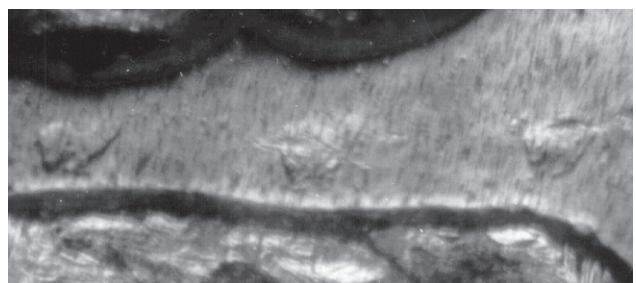
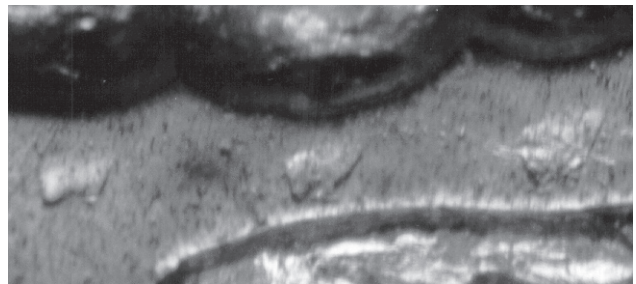
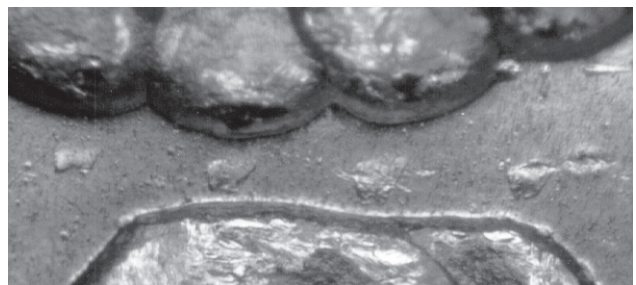
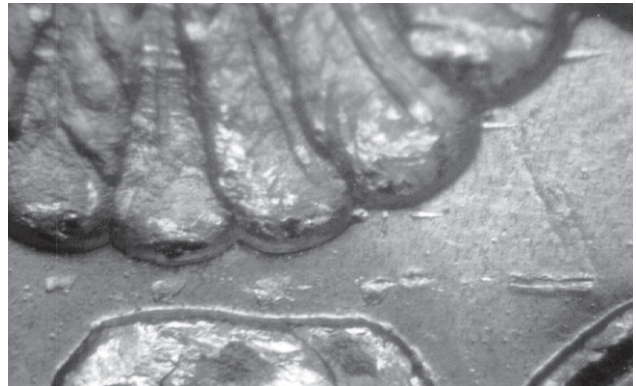
The four dots do not have a consistent shape and size. The angle of the sides for each is different. The dots are straight across, not following the curvature of the rim. These are not in the shape or size of the space between the denticles, and are not the remnants of off-center clashing.

Diagnostics :

Obverse – Small spike below eyelid. Die clashing seen between chin and neck.

Reverse – Small spikes from the right side of the first two tail feathers on the right.

Comments : If the raised metal is not the remnants of the clashed spaces between the denticles what else could it be? The obverse and reverse were examined and no design elements were found to match the raised metal here. Even more confusing is the raised metal on many of these die varieties is a different size and shape. If they were the remnants of the tops of the spaces, or another part of the design, then there should be some consistency in the general size and shape of what caused them.



1878-S

Cross Reference : VAM17A

VAM17A

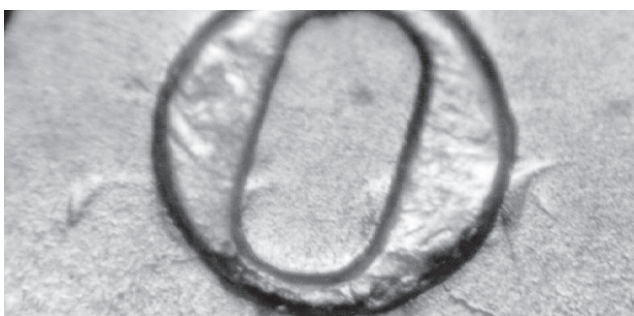
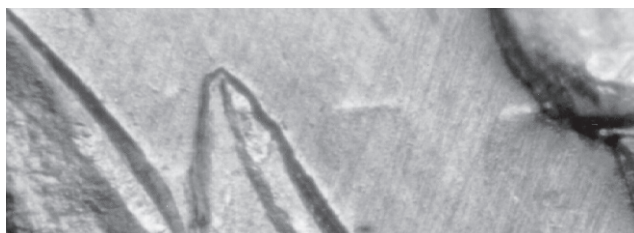
Description : *Refuted Off-Center Clashed Die*

This variety has been listed as a multiple off-center clashing of denticles. There are also several stages with that are believed to have additional off-center clashing. On this stage, there is raised metal between the wreath and tail feathers, between the OL of DOLLAR and the rim, and through the O of DOLLAR.

The raised metal between the tail feather and wreath are boomerang shaped. Each shows part of a flat top and metal on the left side tilted outward. The sides of the space between the denticles are either squared or angled inward. No right side is seen on any of the three dashes. If this were the remnants of spaces, then both the right and left sides of the space should be seen. The highest point is on the top left of each, not across the top as a space would be. The shape and size do not match that of the space between the denticles.

There are five pairs of raised metal between the OL of DOLLAR and the rim. The first two on the left are in the shape of a pair of boomerangs on top of each other. The left side of each is tilted outward, the tops of each is very thin. The lower horizontal bar is not straight across. These are not in the shape or size of the remnants of a space. In addition there is no right side as would be on a space. The highest point is on the left side whereas for a space it is at the top point representing the end of the space. The third and fourth raised metal from the left shows a pair of partial 'O' shaped metal with a continuous curve from the bottom to top. None follow the shape or contour of the space between the denticles. The highest point is on the left of each, rather than on the top representing the space end. All of the raised metal has a different shape and size.

There are several boomerang shaped dots through the O of DOLLAR. The left side of each extends outward. The left side of each has the highest point. There is no right side. These are not in the shape, size, or contour of a space.

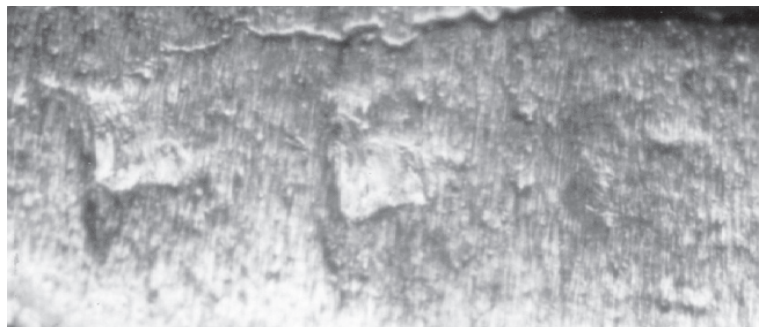
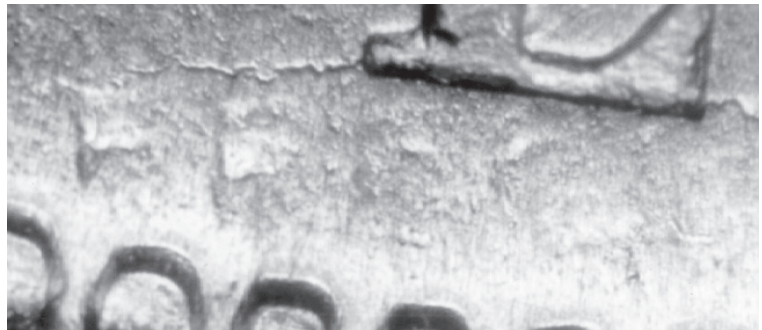
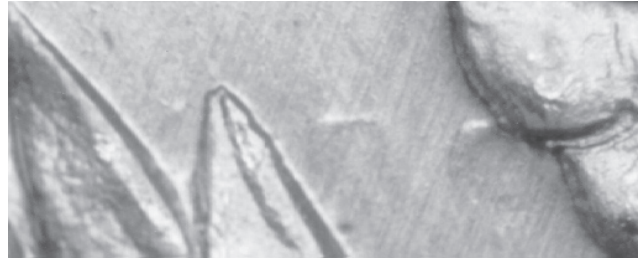


Diagnostics :

Obverse – Fourth star on right missing one point.
Over polished hair below neck shows separated hair. Die crack from first star on left to neck.

Reverse – Die crack from field through the bottom of LL of DOLLAR. Die crack from the star to the O of ONE. Die crack from the field to the I of UNITED. Die crack from the denticles through the left wing tip to the S of STATES. Die scratch from the bow on the right side to the leaves above. Die doubling seen on the D of DOLLAR.

Comments : The space is the highest point on the working die of the denticles and would be the first to make contact when clashed. This variety does not display the characteristics of denticle clashing.



1878-S

Cross Reference : VAM17C

VAM17C

Description : *Refuted Off-Center Clashed Die*

In addition to the extra metal on Stage A, stage B has 5 light spikes from the neck and raised metal through and below the date.

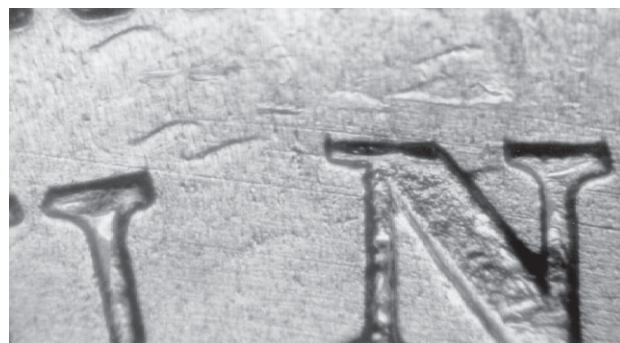
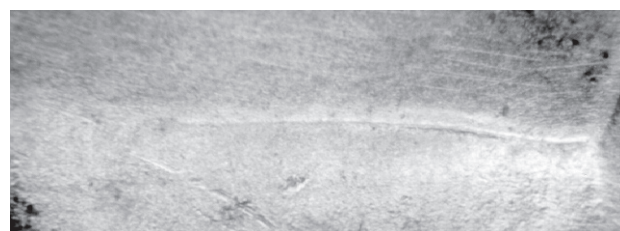
A stage B specimen was not available for examination, but stage C had many of the same raised dots as stage B. The 5 light spikes from the neck follow the contour of the neck. They do not follow the contour of the rim. If there are remnants of more than 3 spaces, a contour should be visible which follows that of the rim. The spikes are extremely thin, much thinner than the average of 1mm for the end of the space.

The extra metal through and under the date does not have any shape or size that is even close to that of a space. In addition, the raised metal is in different shapes and sizes, and does have a consistent distance between the raised metal. This cannot be the remnants of off-center clashing.

In addition to the extra metal in Stage A and B, stage C has additional metal above UNI of UNITED and TAT of STATES.

There are several dashes above the UNI of UNITED. There are two above the right side of the U of UNITED and two above the left side of the N of UNITED. Each dot is a long dash over 2 mm in length. The width of the space between the denticles is approximately 1 mm. There is also over 4 mm in length between the spaces. There is no consistency in the size and shape of the dashes and the distance between the dashes. Several are curved. They are not in the shape, contour, spacing, or width of the spaces between the denticles. There are also other random dashes, such as below the actual denticles above the right side of the U and protruding from the top left of the N of UNITED. These cannot be from the remnants of denticle clashing.

There are several dashes above TAT of STATES. These are no consistent size or shape to these dashes. Many are curved. None match the shape and size of the remnants of a clashed space. There is no consistent distance between the dashes. These cannot be the remnants of off-center clashing.



1878 VAM17C continued

Diagnostics :

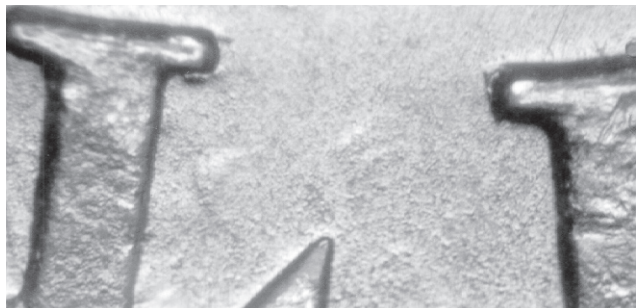
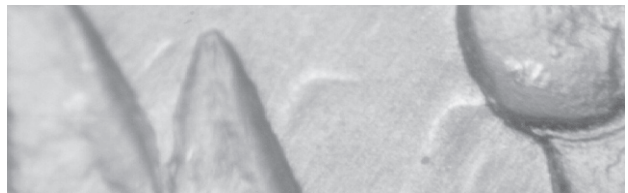
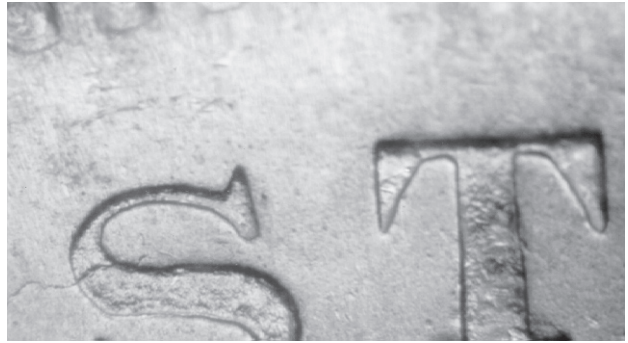
Obverse – Die markers from Stage A are still present.

For Stage C, the extra raised metal below the date in Stage B is not seen.

Reverse – Die markers from Stage A are still present:

For Stage C, die scratch from top of U through N of UNITED. Several dashes above UNI of UNITED.

Comments : This variety cannot be the result of additional denticle clashing. There is no physical evidence which supports that they are the remnants of denticles. Comparing the dashes against the actual spaces above in the denticles makes this an obvious observation.



1878-CC

VAM20

Cross Reference : VAM20**Description :** *Refuted Off-Center Clashed Die*

A line connects the bottom of the TA of STATES and has a small squared dot in the middle. There are also several dots above between the TA.

The left side of the dot is angled to the right upward and the right side is squared. Remnants of a space will have both sides of the space consistent in angle and length. In addition, the sides of remnants of a space will be rectangular or inward like an isosceles triangle. The top is flat, the bottom is uneven. The highest point is the center. Remnants of a space will show the highest point at the end representing the end of the space.

The bottom of the dot is connected on both sides to the TA of STATES. This cannot be remnants of the rim as the edge of the rim is 3mm outside the end of the space. The end of the space does not connect to the next end of space. This cannot be the inside outline to the field at the bottom of the space either. A space is normally 3mm long on a Morgan Dollar. On a tilted working die, the outside end of the space would touch first. This dot is less than 1mm from top to bottom. It also does not have the curvature of the space to field outlining the denticle.

The raised dot does not have the shape or size of the remnants of a space.

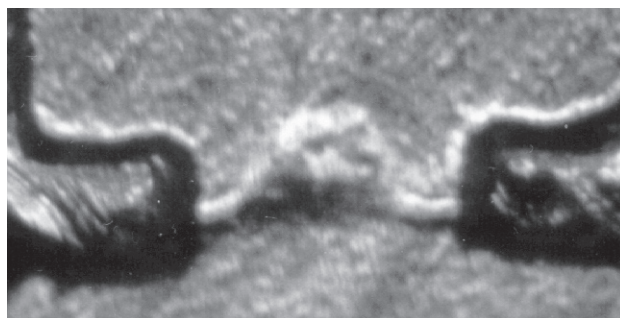
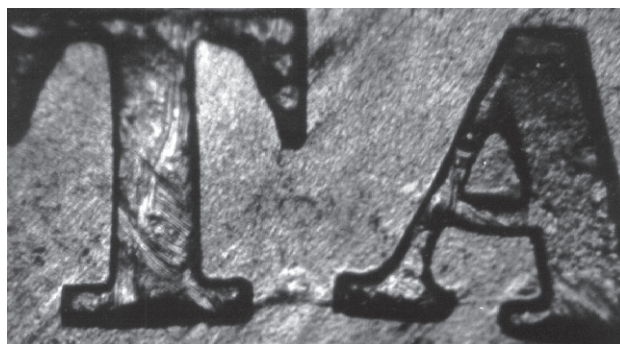
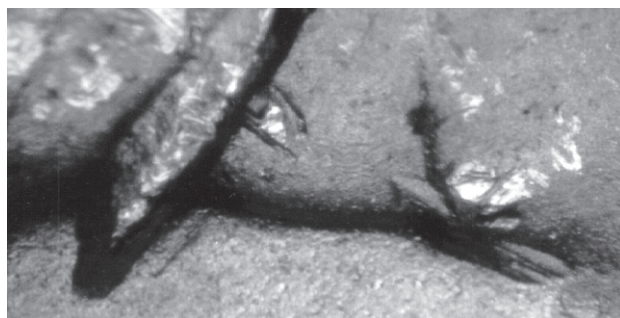
There is also a small dot directly below the top right side of the T. The dots do not have a defined shape or size that is even close to resembling the shape and size of the space between the denticles.

Diagnostics :

Obverse – Two die scratches in the back of the nose. Die scratch in the field outside the lower part of the eye. Small spike from the eye lid. Minor doubling seen on LIBERTY. Broken left leg of R of LIBERTY.

Reverse – Die crack through the top of NITE of UNITED. Die scratches through leaves at the end of the olive branch. Two die scratches from the bottom of the first S of STATES. Small die crack through the top of RI of AMERICA. Die scratches through RICA and star.

Comments : Just because most of these Morgan Dollars are not the result of off-center clashing does not make them less interesting or less collectable.



1881-O Off-Center Clashed Die

OCC-001

Cross Reference : VAM1B, VAM18

Description : *Reverse Off-Center Clashed Die*

The remnants of the rim edge can be seen through the top of the DOL of DOLLAR. The remnants of the top of four spaces can be seen above the rim. On later die states, the remnants of the spaces are not seen.

The line through DOL follows the curvature of the rim around the Morgan dollar. The remnants of the spaces are equally spaced approximately 4 mm apart. The end of the spaces are also approximately 3mm from the outline of the rim edge and follow the curvature of the rim.

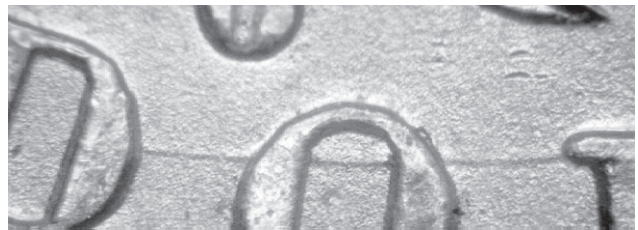
The Morgan Dollar obverse was tilted around 14 degrees when it clashed the reverse. The remnants of the rim edge has a deeper impression than the top of the spaces, from this it can be concluded that the edge of the rim touched the die first, then the end of the spaces made contact with the reverse.



Diagnostics :

Obverse – VAM1B - Die clashing of wreath seen behind head. Die crack through the first four stars on the right. Die clashing seen in front of neck. VAM18 - None noted.

Reverse – The same reverse is used for VAM1B and VAM18. VAM1B - Die crack from D of UNITED to bottom of wing. Die clashing seen in front of neck. Die clashing from top of wing to N of IN. Die crack connecting top of AT of STATES. Die crack through top of OF and wing tip. Die crack through top of MER of AMERICA. Die clashing seen between the wing and top right side of the wreath. VAM18 - Die crack through top of OF, wing tip, AMERICA, star to R of DOLLAR.



Comments : This is absolutely the remnants of clashing of the rim edge and the top of the spaces. The shape and contour of the denticles is as expected when only the end of the space made contact. The contour of the rim edge and denticle is slightly concave upward. Neither the VAM1B nor VAM18 show any remnants of clashing on the obverse.



1887

VAM1E

Cross Reference : VAM1E**Description :** *Refuted Off-Center Clashed Die*

Three triangular shaped dots are seen between the arrow feathers and the wreath.

Each of the dots is in the general shape of a triangle. They are not in the shape of a rectangle or isosceles triangle. Their length from top to bottom is half the length of a space.

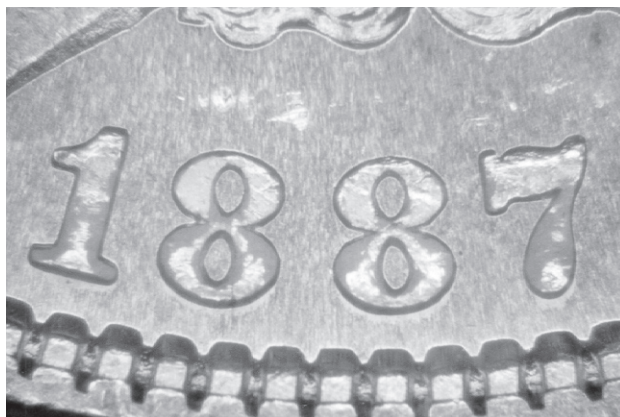
The bottom of the triangles closest to the wreath comes to a point on each. This does not match the inner part of the remnants of a clashed space curving outward to the field. There are no remnants of the field outlining the denticles.

The tops are very shallow. The highest point is near the bottom, not near the top as would be the end of the space.

The triangle on the left is much smaller than the other two.

The tops of the first two triangles to the right are connected at the top by a line that starts near the end of a leaf on the wreath. This cannot be the edge of the rim which is 3mm above the end of the space. The outermost part of the space does not connect to the spaces on either side. This is not the shape or contour of the field outlining the denticles.

The shape of the triangles are not in the shape of the space between denticles. This cannot be the remnants of the off-center clashing.

**Diagnostics :**

Obverse – Small die scratch from neck near top.

Reverse – Die scratch from middle of O to bottom of F of OF.

Comments : On the working die, the space between the denticles is the highest point of the denticles and the same height as the field. Between the spaces, the actual denticle is incused. The outer edge of the space toward the rim is normally more squared off. The sides are normally squared and go inward. The inside of the space connects to the field. Looking at the 1880 Indian cent off-center and other Indian and Two cent off-center clashing, the field on the inside of the space is seen connecting the spaces, not the outside at the top of the space.



Cross Reference : VAM1C**Description :** *Refuted Off-Center Clashed Die*

There are approximately 9 raised dots under the right tail feathers. Most of the dots are triangular shaped. Two dots are touching the tail feathers; one from the 2nd feather and another from the 3rd tail feather.

The 7 raised dots in the field below the tail feathers are different sizes and shapes. For example, on the two lowest triangular dots, the one on the left is twice the size as the one on the right. The one on the left has longer sides than the one on the right. On the two dots above, the one on the left is twice the size as on the right. One of the dots is tear-dropped shaped. Another dot has no defined shape.

Some of the triangular shaped dots are oriented in different directions. Some are faced downward, while others are faced upward.

Most of the triangular shaped dots have different lengths and angles of the sides. The lengths are shorter than the 3mm length of a space.

Most of the dots have the highest point in the center, some are off-center for the highest point. Most of the dots do not have a consistent distance between them.

There are no remnants of the field or rim.

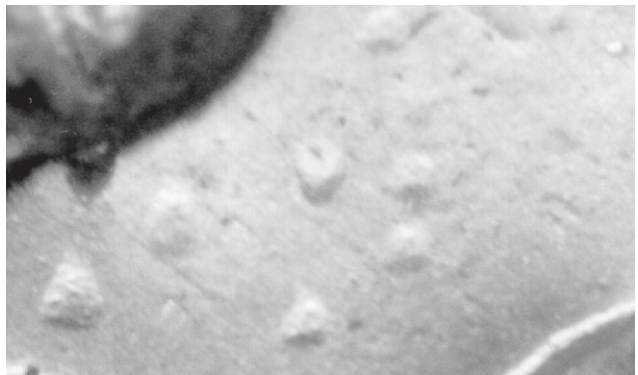
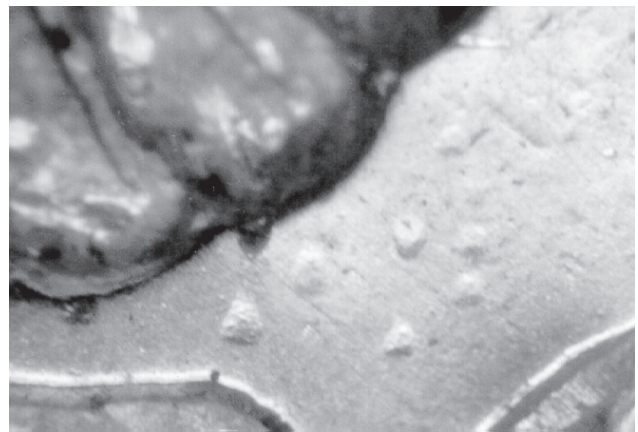
The dots are not consistent in size and shape with each other or that of remnants of a space. The distance between the dots is inconsistent. These cannot be the remnants of off-center clashing.

Diagnostics :

Obverse – None noted.

Reverse – Spike protruding from top right tail feather.

Comments : If you examine the photos of the Indian and Two cent off-center clashes, you will see a consistent size and shape of the clashed spaces, which match the actual size and shape of the spaces. On this variety, there are different sizes and shapes of the dots, which do not match that of the spaces. Some are greater than 1 mm in width, which is wider than the normal space between the denticle, while others are very skinny.



1890

VAM1D

Cross Reference : VAM1D**Description :** *Refuted Off-Center Clashed Die*

Several dots seen around the top right leaf on the branch on the left side. A dot is seen on the left side of the top right leaf of the olive branch. Two additional upward facing triangular shaped dots are seen to the right. An additional much smaller downward facing dot is seen above the dot to the right.

The dot to the left side of the leaf has the general appearance of a triangle, but is a different shape than the other two dots.

On the two dots to the right of the leaf, the first is smaller in size than the second. Both are smaller than the 3mm length of a space. There are no remnants of the field or rim edge.

Both dots are very light in strike with the highest point in the center. The bottoms of these two dots do not have a definite shape and are not squared. The squared end of the space between the denticle would be the first to strike the opposite die if on a tilt and will have the strongest impression in the opposing die.

The upper triangular dot is very small and is not the shape or size of the remnants of a space.

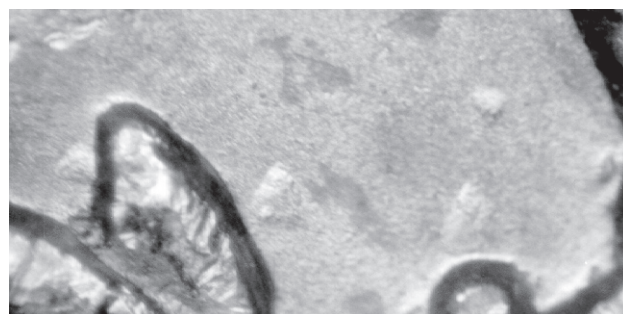
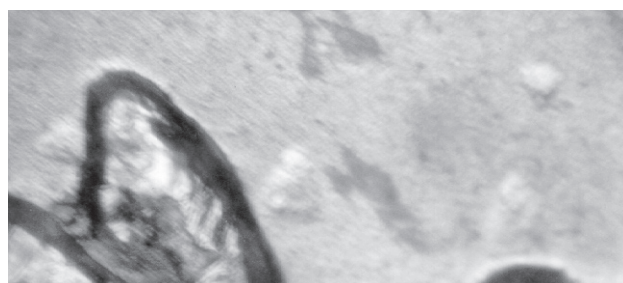
As the shape and size are inconsistent between the dots and do not match the shape and size of the remnants of a space, this cannot be the remnants of off-center die clashing.

Diagnostics :

Obverse – None noted.

Reverse – Die scratches inside ribbon now. Die scratch from the arrow feathers through the olive branch to the leaves.

Comments : In studying this variety with a 60x zoom microscope, the metal is barely raised above the field. The outline is not clearly defined on these shapes. The distance between raised dots cannot be the only criteria used in the determination of off-center clashing. There are many physical characteristics which can be used to identify whether the remnants are from clashing of the space between the denticles on the working die.



Cross Reference : VAM1G**Description :** *Refuted Off-Center Clashed Die*

A set of three very light dots are seen under the middle of the tail feathers.

The first dot to the left is seen under the left side of the 4th feather from the right. Second dot is seen under the right side of the 4th feather from the right. An additional dot is seen to the right, but is extremely light.

The first two dots are half oval shaped, coming to a point at the bottom. The tops of both are broken with no discernible shape. The third dot is too small to verify a shape. Each dot is a different size and shape. These dots are much smaller than the remnants of a space, especially the 3mm length of a space.

These dots are extremely light as they barely come above the surface of the field. The first dot to the left has the highest point at the center. The second dot has the highest point below the center.

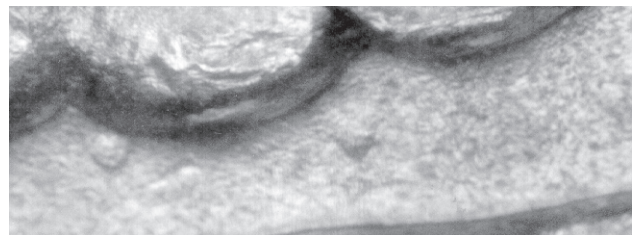
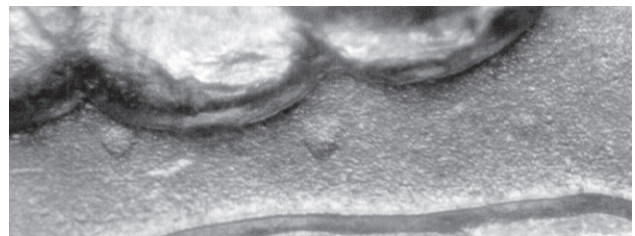
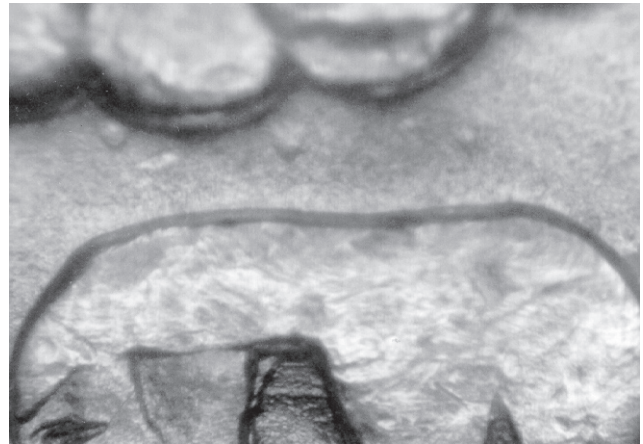
As the shape and size are inconsistent between the dots and do not match the shape and size of the remnants of a space, this cannot be the remnants of off-center die clashing.

Diagnostics :

Obverse – None noted.

Reverse – A single die scratch seen at the top of the ribbon bow. Die scratch seen below the 5th and 6th tail feather from the left.

Comments : If only half of the space is clashed into the opposite field, the shape will not be isosceles trapezoid. The tops and bottom will be different lengths and the sides angled inward. If the top of the space on the working die is flat, then it is not possible that a partial clashing of a space would be triangular shaped. This variety shows almost no definition of shape at the top. If the working die is tilted when clashed, the end of the space will cause the deepest impression.



1890

VAM11A

Cross Reference : VAM11A**Description :** *Refuted Off-Center Clashed Die*

Several dots are seen between the right tail feathers and the bow.

The first dot to the left is check mark shaped and is seen above the center of the ribbon bow. The left side is much lower than the right. The top has no definitive shape or depth of strike. On the remnants of a clashed space, both sides will be of similar length and angle.

The second dot is spiked shaped going outward to the right is seen above the right side of the ribbon bow. This is similar to the check mark shaped spike with the bottom under the design element of the bow. The top has no defined shape and is very shallow in strike. On the remnants of a space, the outmost end will be the first to strike the opposing die and cause the greatest depth of impression.

The dot to the right is tear drop shaped and is seen to the right half way between the ribbon bow and wreath. The top is much lighter in strike than the bottom. The top does not have a squared defined shape.

An additional dot is seen above the middle of the first and second dots. This dot is very small and does not have a defined shape.

There are no remnants of the field or rim edge.

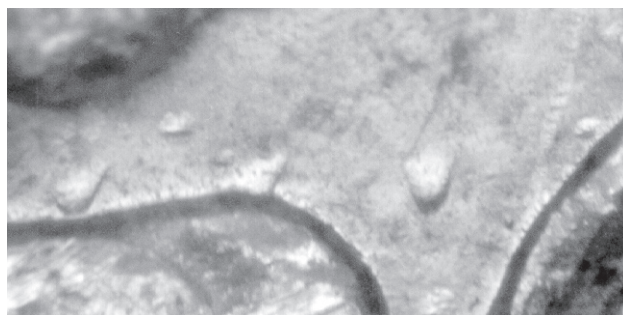
The shape and size of the dots are not consistent with the shape and size of the space between the denticles. The tops of the remnants are very light and do not have a definitive shape. The end of the space should have a sharp edge and is the first to strike the opposite working die. This cannot be the remnants of off-center die clashing.

Diagnostics :

Obverse – None noted.

Reverse – Several die scratches in ribbon loop. Die scratch above top left of ribbon loop.

Comments : For die varieties not included in this book, the same criteria can be used in the determination as to whether they are the result of off-center die clashing.



Cross Reference : VAM1C**Description :** *Refuted Off-Center Clashed Die*

Two rows of dots are seen between the left tail feathers, the arrow feathers, and the wreath.

The lower set of four dots starts at the end of the second leaf of the first cluster of leaves to the left of the ribbon bow and goes to the top leaf in the third cluster. Each dot is very light and has no discernible shape. There are no solid lines on the sides of the dots to define a triangle or any other shape.

The second set of five dots is at the bottom of the arrow feathers. There is one below the arrow feathers, and the four remaining are to the right under the tail feathers. The first dot to the right is downward facing and has the general appearance of a triangle, but has no line defining the top. This is the strongest of the five dots and is stronger on the point compared to the top edge which should be the point closest to the rim and strongest part of the impression. The other 4 dots do not have defined shapes. They are more towards oval than triangular or squared. All are extremely light. The sizes and shapes between the dots are inconsistent.

Both sets of dots are straight across and do not follow the curvature of the rim.

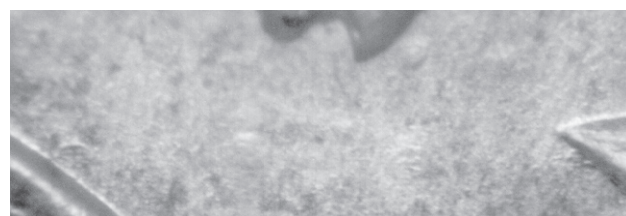
The sizes and shapes of these dots do not match that of the spaces between the denticles. The size and shapes are inconsistent. These are not the remnants of off-center clashing.

Diagnostics :

Obverse – None noted.

Reverse – Several die scratches through center of ribbon bow.

Comments : If the working die is tilted above 14.04 degrees when it clashes the second working die, then the rim edge will be the closest point to the second working die and leave remnants of the rim edge into the second working die. None of these refuted off-center clashed dies show any remnants of a rim edge. On this variety, with the dots being this shallow in strike, they were most likely smoothed down through wear in the coining press.



1891

VAM1B

Cross Reference : VAM1B**Description :** *Refuted Off-Center Clashed Die*

A series of 4 dots are seen to the left of the top of the ribbon bow. Several dots are seen to the left of the middle of the ribbon bow. Several dots are seen between the right tail feathers and the leaves.

For the 4 dots to the left of the top of the ribbon bow, the first three dots to the right are tear-dropped shape. The fourth dot is very small and has not definitive shape. Each dot has a different shape and size. The first and second dots to the right are closer together than the 2nd and 3rd dots. The third dot is also down lower and not in line with the 2nd and 4th. The greatest depth of strike on the first three dots is on the right side rather than the top. The tops of the first three dots are very shallow and no discernible shape. These are not in the shape, size, contour, alignment, or separation of the spaces on the working die.

There are two small very light dots to the left of the middle of the ribbon bow that do not have a definitive shape or size and cannot be the remnants of denticles.

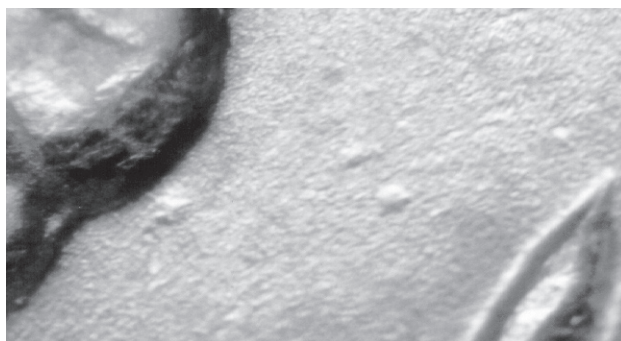
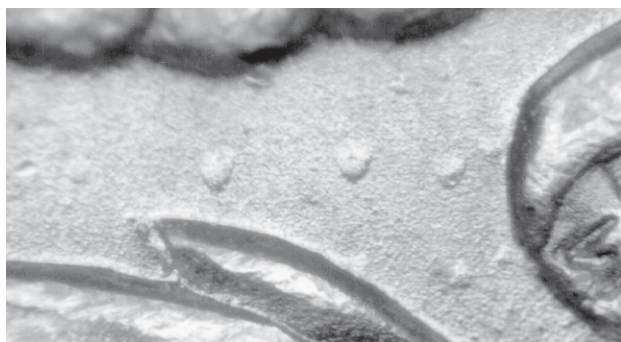
There are two small very light dots half way between the second tail feather from the right and the leaves. There is no definitive size or shape to these dots and they are much closer than 4 mm apart. They cannot be the remnants of off-center clashing.

Diagnostics :

Obverse – None noted.

Reverse – None noted.

Comments : Being able to examine, study, and take measurements on an actual working die was extremely helpful in understanding the physical characteristics of the design elements, field, denticles, and rim. These helped determine diagnostics that could be use to identify the results of off-center clashing. The ANS has a pair of 1883-CC Morgan Dollar working dies that they permitted to be photographed for this book.



1900-O

VAM21E

Cross Reference : VAM21E

Description : *Refuted Off-Center Clashed Die*

Three small dots are seen below the left tail feathers.

The first dot to the left is under the left side of the third feather from the left. The three dots have no definitive shape or size. They do not have a flat top representing the end of the space nor two sides of the same length and angle. The size and shapes are different on each of the dots.

The first and second dots from the left are further apart than the second and third.

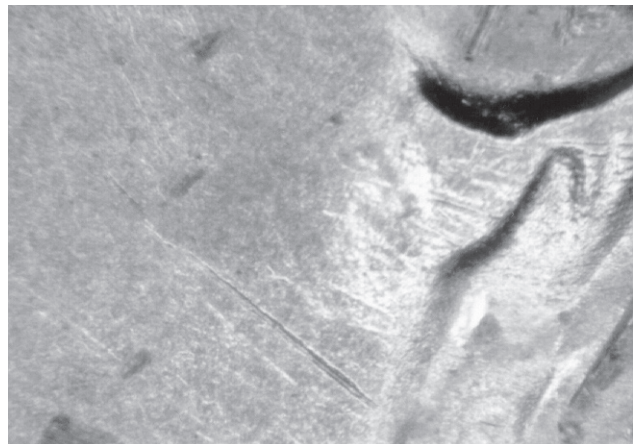
As the shape and size are inconsistent between the dots and do not match the shape and size of the remnants of a space, this cannot be the remnants of off-center die clashing.



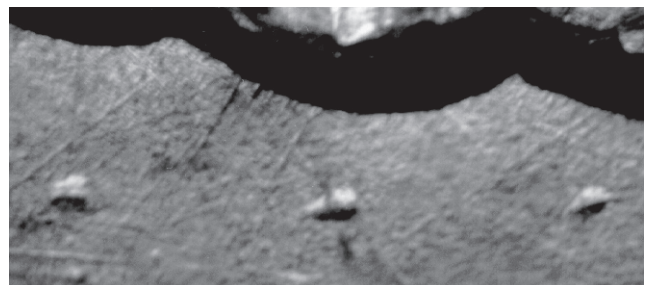
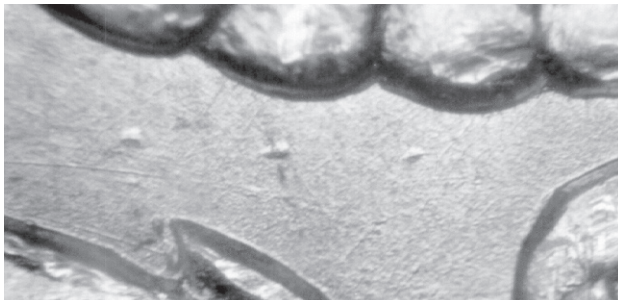
Diagnostics :

Obverse – Die scratch from the first star to the left through the second star to the rim. Die scratch from the field above the first star to the left to the third star. Die scratch from the third star to the left through the fourth star to the fifth star. Heavy die scratch from the front of the hair below the ear.

Reverse – Die crack through the top of TE of UNITED. Die scratch from the D of UNITED through the wing tip, through the first S of STATES to the rim. Die crack through the top of ES of STATES. Die scratch from the F of OF through the wing tip, first A of AMERICA to the rim. Many die scratches inside ribbon bow. Many die scratches on reverse.



Comments : Looking at the center dot, the left side angles up dramatically, the right side angles up slightly. The third dot has no shape. If these were remnants from clashing from the end of the space, they should be consistent in size and shape.



1904-O

VAM12A

Cross Reference : VAM12A**Description :** *Refuted Off-Center Clashed Die*

A single isosceles triangular shaped dot is seen below the left wing.

The shape and size is similar for what would be expected on remnants of a space.

Most of the sides are very shallow in depth of strike. The center is the highest point, not the bottom which should represent the outermost part of the space closest to the rim.

No remnants of the rim edge or space going out towards the field can be seen.

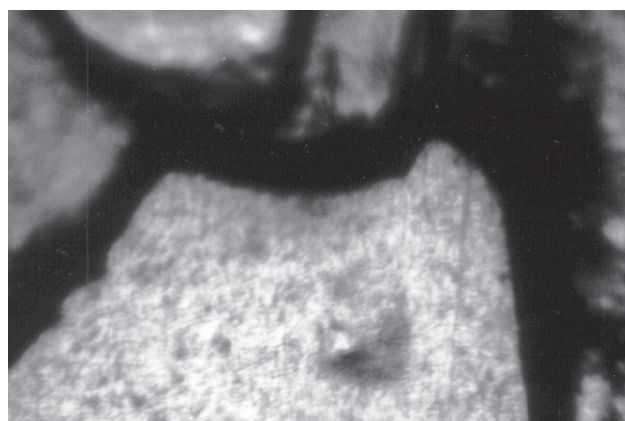
With only one dot, it is impossible to classify as the remnants of an off-center clashing.

**Diagnostics :**

Obverse – Repunched 94 south.

Reverse – Small die scratch seen protruding from the left wing on the right side of the dot.

Comments : The design elements on the working die are incused. When the planchet is struck by the working dies in the coining press, under high pressure, the metal from the planchet is squeezed into the recesses of the design elements. This creates raised design elements on the coin. If there are imperfections or abnormalities incused in the face of the working die they will show as raised elements on the coin. Some of these are created when the working die is stressed such as die cracks. Others such as die polishing are created when the die is abraded to clean it. A die chip can be created if a small piece of the working die breaks off. Die gouges can occur when a foreign object such as a tool scraping the surface of the die causing an impression into the face of the die. The metal in the working die could also be flawed causing weakness in the face of the die. These are only a few of the problems that can leave an unintended incused flaw in the face of the working die. As such, unless it is obvious that a single raised dot on the coin clearly shows a perfect match, it cannot be classified as an off-center clashed die. For example, if this dot on this variety was angled outward at the bottom as would the bottom of the space angling outward toward the field outlining the denticles and the depth of strike was sloped from top to bottom. Then it could be concluded that there was a good probability that it was the result of off-center clashing.



Cross Reference : VAM3F2**Description :** *Refuted Off-Center Clashed Die*

A series of 5 dots is seen between the ME of AMERICA and the wreath. A second set of three small dots is directly below them.

The first dot to the right is seen to the left of the middle of the E of AMERICA. The second dot is seen to the right of the bottom of the M. Two dots are seen between the M and wreath. The final dot is seen right above the top of the wreath.

The dots do not have a defined shape or size. The dots are all of different shapes and sizes. They do not have a defined top representing the end of the space or distinct sides representing the side of the spaces. All are extremely shallow in strike.

The dots are in a straight line, they do not follow the curvature of the rim.

The second set of dots start below the E and go across to the wreath. They are extremely shallow and do not have a defined shape or size. The three dots are below the three dots above.

The sizes and size of the dots do not match that of the spaces between the denticles. The size and shapes of the dots are inconsistent with each other and do not follow the curvature of the rim. These are not the remnants of off-center clashing.

**Diagnostics :**

Obverse – Die scratch from rim to P of EPU. Die crack through top of BU of PLURIBUS. Die crack from the top of the U of PLURIBUS through the S to the top of the head.

Reverse – Die scratches on the right side of the ribbon bow.



Comments : One or two dots might easily be explainable as a possible die gouge or other flaw. With several of these varieties, there is a series of four or five dots found in a row. That is much more difficult to explain. No design elements were found on the obverse that might have caused these dots and be the result of normal clashing. The purpose of this book was to identify die varieties that were the result of off-center clashing. Even though for the majority of these Morgan Dollars examined it was concluded they could not be the result of off-center clashing, a valid explanation for their cause was not found (yet).



1921

VAM31A1

Cross Reference : VAM31A1**Description :** *Refuted Off-Center Clashed Die*

Five dashes are seen between the arrow tips and bottom of the right wing.

The first dash to the left is directly to the right of the eagle's talon. It is very thin and is a greater distance away from the second dash than the second to third dash.

The second dash from the left is to the right of the bottom of the arrow. It is in the shape of an isosceles trapezoid with a flat bottom, sides angled inward. The top is generally flat, but does not have a defined shape.

The third dash from the left is more triangular in shape. The bottom is flat and the sides angle up inward. The fourth dash from the left has a flat bottom, both sides are angled inward, with the right side much longer than the left. The left side goes up, then back down, then upward to the top of the right. The dash to the right is very thin with no defined sides.

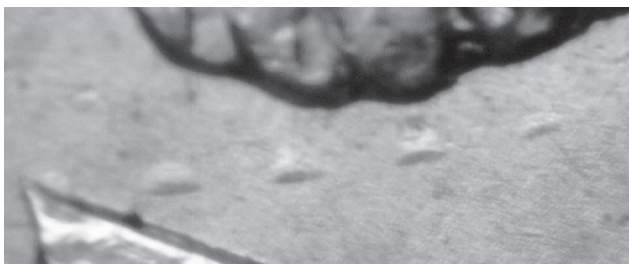
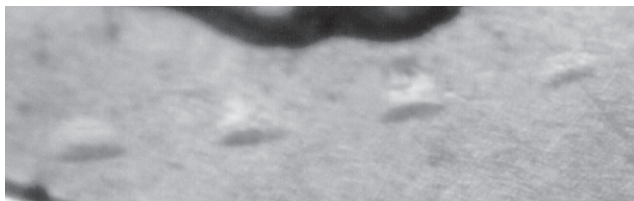
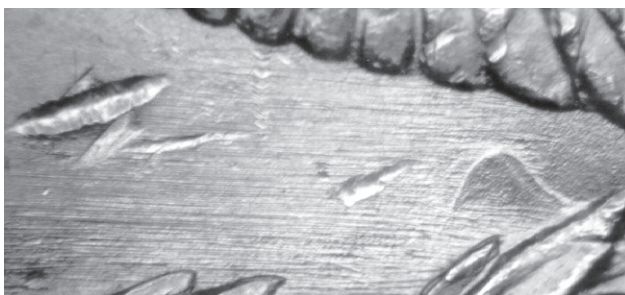
For the center three dashes, the highest point is at the bottom. For the dashes on either side, the level is constant throughout.

The dashes are straight across, they do not follow the curvature of the rim. The dashes are different in size and shape. The second dash matches generally to what a partial space would look like, but the others do not. These are not the remnants of off-center clashing.

Diagnostics :

Obverse – Die crack through first three stars on the left to the rim. Die crack through the top four stars on the left. Die crack through the top of the E of EPU. Die crack from the rim to the P of EPU.

Reverse – Die crack through the top of ED of UNITED to the wing tip. Die crack from the wing tip to the S of STATES. Die crack from the rim through the top of STA of STATES. Die polishing lines through IN G to the wing. Die crack through the top of ES of STATES. Die polishing seen between the leaves on the right side and the wing.



Cross Reference : VAM40A**Description :** *Refuted Off-Center Clashed Die*

A series of 5 dots is seen between the left tail feathers and the wreath. A series of two dots are seen above.

For the five dots, the first dot on the left is seen under the arrow feather, second one under the first tail feather to the left, third under the first and second tail feather, fourth under the second tail feather and fifth under the third tail feather.

Each of the dots has a different size and shape. The first on the left is very small, the second is rectangular, third almost squared, fourth triangular, and fifth irregular. All are very shallow in strike with the highest point of strike in the center, not the top. The top sides of most are broken in shape. The dots are straight across, they do not follow the curvature of the rim.

There are two dots directly above the third and fourth dots. They are irregular in shape and size.

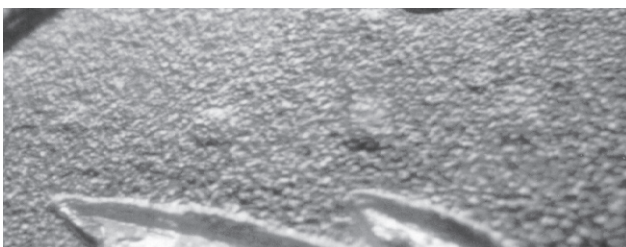
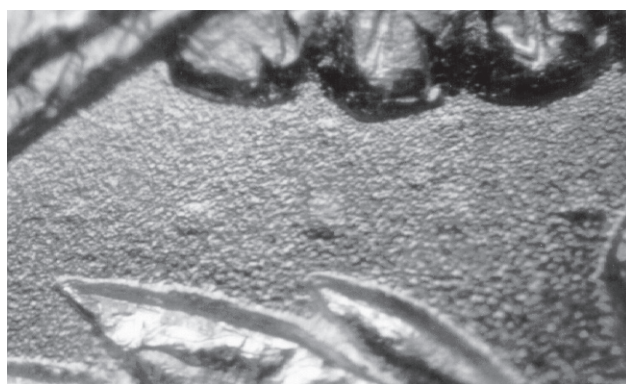
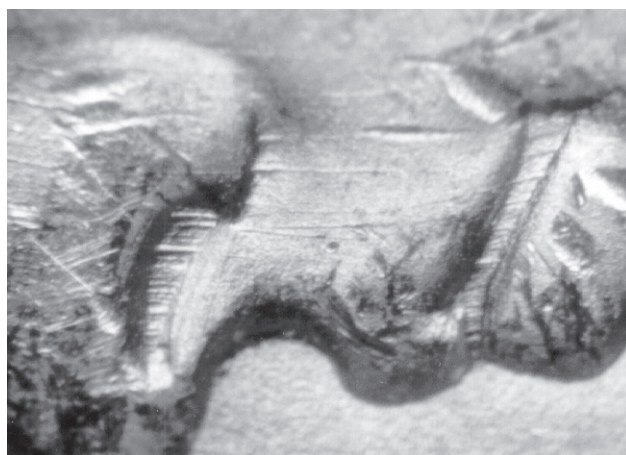
The sizes and shape of the dots do not match that of the spaces between the denticles. The size and shapes of the dots are inconsistent with each other and do not follow the curvature of the rim. These are not the remnants of off-center clashing.

Diagnostics :

Obverse – Die scratches in the nostril and down through the lip. Die scratches through the middle of M of UNUM. Class II doubling seen on the stars on the right.

Reverse – None noted.

Comments : Most of the dots found on the Morgan Dollars are very light and required lot of tilting with the light to be studied. Late die stages on many of these light dots will most likely be worn down to the level of the field and not visible.



1921-S

VAM1AJ

Cross Reference : VAM1AJ**Description :** *Refuted Off-Center Clashed Die*

A series of 2 dots are seen between the arrow feathers and olive branch.

The dots are generally triangular in shape. They are very shallow in strike with the highest point in the center, not to one side that would represent the edge of the end of the space. The triangles are oriented differently. The edges are not squared in shape. Normally, the remnants of a space will be either rectangular or isosceles triangle shaped. The sides will be about 3mm in length. Here, the sides are much shorter than 3mm in length.

The sizes and shape of the dots do not match that of the spaces between the denticles. These are not the remnants of off-center clashing.

Diagnostics :

Obverse – Die crack through the bottom of the 21 of the date. Die crack through the second and third star to the left. Die crack through the bottom of EP of EPU.

Reverse – Many die scratches through UNITED. Die crack through ED of UNITED to the wing tip. Die crack through the bottom of ATES of STATES and OF. Die crack through the top of ME of AMERICA. Rust spots below right tail feathers and to the right of the ribbon.

Comments : The size and shape of the dots on this variety and many of the other Morgan Dollar die varieties that have been called denticle clashing should be relatively consistent. Most show very different sizes and shapes which is further evidence they are not the result of off-center clashing. More research is needed to determine what caused these dots.

