Beginner's Corner

Class V Doubled Dies

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Pivoted Hub Doubling

Class V doubled die varieties could probably be considered cousins to the Class I varieties. They are very similar in appearance. Class I doubled dies have their doubling spread in either a CW or a CCW direction due to the fact that the hub (or die) is rotated like a wheel about the center point of the hub/die or a point somewhere between the center and the rim.

Class V doubled dies have the point of rotation, or pivot point, somewhere along the rim of the hub/die alignment. If the hub/die alignment is also slightly off-center, the pivot point could actually be off the edge of the die. As a result, Class V doubled dies will also have most of their doubling spread CW or CCW.

To understand this effect, let's go back to the figure of the 1967 Lincoln Cent that we previously used. In Figure #4, we placed our transparency on top of it so that the images were in perfect alignment. We then stuck a pin through the transparency at the rim at approximately 3 o'clock and rotated (pivoted) the transparency slightly in a CCW direction. The results which you see in Figure #4 are typical of Class V doubled die varieties.

Since the pivot point is at the rim, there will be virtually no doubling at the pivot point. The strongest spread to the doubling will be directly across from the pivot point. Moving around the outside of the die from the pivot point, the spread increases until you hit exactly opposite the pivot point. If you continue moving around the outside of the die, the spread of the doubling will decrease until you get back to the pivot point.

This doubling will also be slightly inward toward the center of the die in conjunction with the CW or CCW spread because the pivot point is at the rim and not at the center of the die. You see this effect best on the letters of IN GOD WE TRUST in Figure 5. In the early days of listing doubled dies, many varieties were described as being Class II+V when, in reality, they were just Class V. The spread towards the center was thought to be the result of the mechanisms that produce Class II doubled dies, but it was just a natural occurrence of the Class V varieties.

What causes Class V doubled die varieties? As indicated earlier, the Mint uses lugs on the hubs and dies to insure proper realignment between hubbings. If one or more of the notches around the hub becomes filled with grease or other debris, the raised areas around the outside of the die will be unable to enter those notches properly. The hub or die can then pivot on the lug that has entered properly on the side opposite those lugs that were filled with the foreign substance. It is also possible that, after repeated use, one or more of the raised lugs on the die could chip away. Again, there will be no resistance in this area and a pivoting motion could occur.

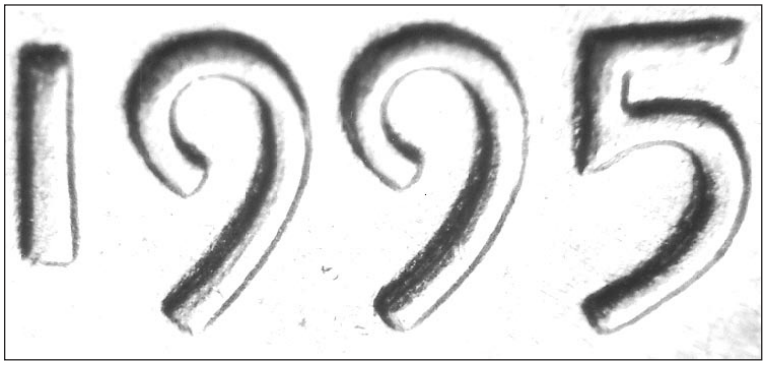
Due to the fact that the Class V varieties are very similar in appearance to the Class I varieties, the Class V varieties have proven to be quite popular with collectors. The 1995 doubled die obverse cent which received so much publicity is a classic example of a Class V doubled die variety.

Figure 1

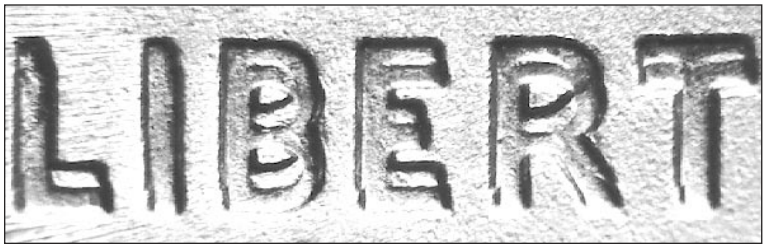
Figure 2

Figure 1 was made by pivoting the transparency CCW about a point at the rim at about 3 o'clock. Note the characteristic of the doubling. There is virtually no doubling at the pivot point and the strongest spread is on the other side of the coin opposite the pivot point.

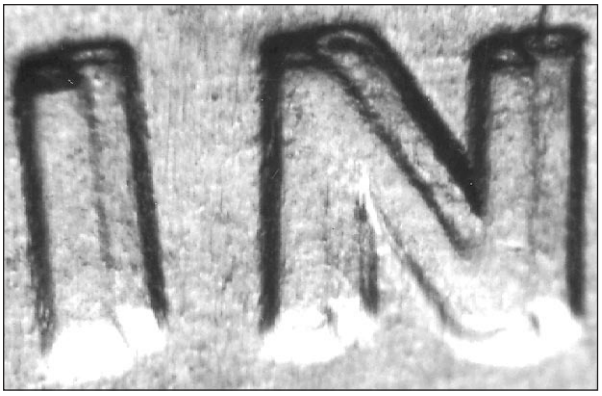
Once again we aligned the image on our transparency as we did with Figure #1. We pivoted the transparency slightly CCW about a point at the rim at approximately 9 o'clock. Notice that this time there is virtually no doubling on LIBERTY. Also notice how the letters of IN GOD WE TRUST are actually spread outward towards the rim in addition to having a CCW spread. These are well separated images which would result on an extremely major doubled die variety. Most actual examples are not this pronounced.

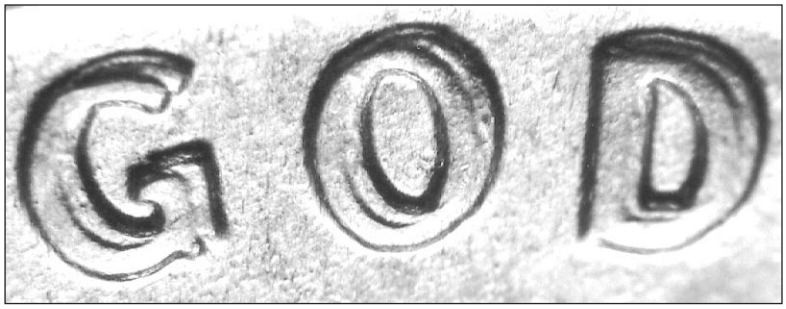


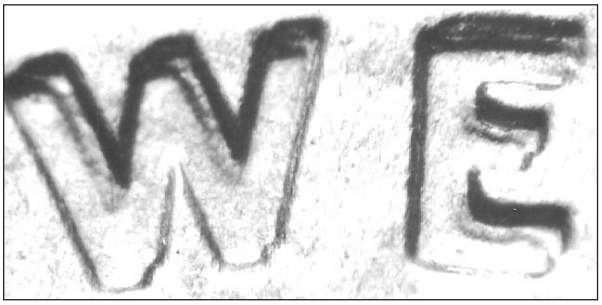
Hardly any doubling can be seen on the date of this **1995 1c WDDO-001** since it is very near the pivot point.



This is the doubling on LIBERTY for **1995 1c WDDO-001**. It is the strongest doubling on the variety since it is directly across from the pivot point which was at about 3 o'clock.







Notice on these photos of IN GOD WE from **1995 1c WDDO-001** how the doubling is spread in a CCW direction and is also slightly towards the center of the die, just like in Figure #2.

We can also see how the spread decreases as we move from left to right through IN GOD WE TRUST. As we do so, we are moving towards the pivot point.

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